

NSAF

1997 NSAF Telephone Survey Methods

Report No. 9

Prepared by:

Westat

Nancy Vaden-Kiernan

David Cantor

Pat Cunningham

Sarah Dipko

Karen Malloy

Patricia Warren



Assessing
the New
Federalism

*An Urban Institute
Program to Assess
Changing Social Policies*

NSAF
Methodology
Reports

Preface

1997 NSAF Telephone Survey Methods is the newly-reissued ninth report in a series describing the methodology of the 1997 National Survey of America's Families (NSAF). It is being reissued to accompany the 1999 NSAF Report the same subject (as No. 9 in that series). Two closely related reports are those for 1997 and 1999 on the nontelephone data collection done in both rounds. These appear as Report No. 5 in each series.

About the National Survey of America's Families (NSAF)

As discussed elsewhere (e.g., see especially Report No. 1 in the 1997 NSAF methodology series), NSAF is part of the Assessing the New Federalism Project at the Urban Institute, being done in partnership with Child Trends. Data collection for the NSAF was conducted by Westat.

In each round of NSAF, carried out so far, over 40,000 households were interviewed, yielding information on over 100,000 people. NSAF has focused on the economic, health, and social characteristics of children, adults under the age of 65, and their families. The sample is representative of the nation as a whole and of 13 states. Because of its large state sample sizes, NSAF has an unprecedented ability to measure differences between the 13 states it targeted.

About the 1997 and 1999 NSAF Methodology Series

The 1997 and 1999 methodology series of reports have been developed to provide readers with a detailed description of the methods employed to conduct the 1997 NSAF. The two series are nearly parallel, except for the documentation of the public use files, where an on-line system is being used for the 1999 survey and we are planning to reissue the 1997 files on a similar basis.

Report No. 1 in the 1997 series introduces NSAF. Report Nos. 2 through 4 in both series—plus Report No. 14 in the 1997 series—describe the sample design, how survey results were estimated and how variances were calculated. Report Nos. 5 and 9 in each series describe the interviewing done in for the telephone (RDD) and in-person samples. Report Nos. 6 and 15 in the 1997 series and Report No. 6 in the 1999 series displays and discusses the comparisons we made to surveys that partially overlapped NSAF in content—including the Current Population Survey and the National Health Interview Survey, among others. Report Nos. 7 and 8 in both series cover what we know about nonresponse rates and nonresponse biases. Report No. 10 in both series covers the details of the survey processing, after the fieldwork was completed, including the imputation done for items that were missing. Report No. 11 in both series introduces the public use files made available.

In the 1997 series, there were additional reports on the public use files available in a PDF format as Report No. 13, 17-22. These will all eventually be superceded by the on-line data file codebook system that we are going to employ for the 1999 survey. The 1997 and 1999 NSAF questionnaires are available respectively as Report No. 12 in the 1997 series and Report No. 1 in the 1999 series. Report No. 16 for the 1997 series, the only report not so far mentioned contains occasional papers of methodological interest given at professional meetings through 1999, regarding the NSAF work as it has progressed over the years since 1996 when the project began.

About this 1997 Report

Report No. 9 describes methods employed to complete the telephone component of the 1997 NSAF including a list-assisted method to select the random digit dialing (RDD) sample of telephone numbers and computer-assisted telephone interviewing (CATI) for screening and interviewing. Subsampling of telephone households is described, as is how respondents were selected, information on the topics covered during the interview, and data quality control methods used. The report concludes that there were few difficulties with the telephone interviewing component of the NSAF. Those that did exist, primarily related to within household coverage issues and family definition problems.

For More Information

For more information about the National Survey of America's Families, contact Assessing the New Federalism, Urban Institute, 2100 M Street, NW, Washington, DC 20037, telephone: (202) 261-5886, fax: (202) 293-1918, Website: <http://newfederalism.urban.org>. For more information about this report, contact VadenkN1@Westat.com.

Jenny Kenney
and
Fritz Scheuren

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1. INTRODUCTION AND OVERVIEW OF THE TELEPHONE PROTOCOL

The National Survey of America's Families (NSAF) had both a telephone and an in-person protocol. This report focuses on the telephone protocol. The in-person protocol is described in *In-Person Survey Methods*, Report No. 5 in this methodology series.

The telephone component of the NSAF used a list-assisted method to select the random-digit dialing (RDD) sample of telephone numbers and computer-assisted telephone interviewing (CATI) for screening and interviewing. The sample was selected separately for each of the study sites and for the balance of the nation. Telephone households were subsampled, with the subsampling rates depending on the presence of children in the household and their response to a simple income screening item. All the households with children that were classified as low-income households were sampled, while higher-income households with children and all households without children (but with someone under 65) were subsampled.

From the sample of 483,260 telephone numbers, 179,280 households were screened, and detailed extended telephone interviews were conducted with 46,640 persons under the age of 65. As noted above, there was also an in-person component to the study. In the in-person component, 1,691 extended interviews were conducted, for a total of 48,331 telephone and in-person extended interviews.

The longer interview (39 minutes), referred to as Option A, was administered in households with children under 18, and the shorter interview (23 minutes), called Option B, to adults under 65 without children under 18 living in their household. There were 28,163 Option A interviews and 20,168 Option B interviews. Option A interviews asked questions about both children and their families, while Option B interviews contained only the questions from Option A that were relevant to adults. The questionnaire was divided into several sections, including the following topics: education, health care coverage and access, child care, employment and earnings, family income, welfare participation, housing and economic hardship, social services, problems, race, ethnicity, and nativity.

Prior to administering the interview, interviewers screened households to determine eligibility, households were subsampled as appropriate, and persons were selected for the interview. In households with children, up to two children (called focal children) were selected, one under age 6 and the other between 6 and 17. Information about the child(ren) and the household (the Option A interview) was obtained from the most knowledgeable adult (MKA). It was possible to have separate MKAs for each focal child, although it was more common to have one MKA for both children. It was also possible to sample adults from households with children. To be eligible for this selection protocol, the adult had to be under 65 years old, not a spouse or partner of the respondent, and not have any children of his or her own under 18 years old living in the sample household. This group became known as the Option B stragglers because their interview always followed the interview for the focal children. Other adults under 65 were sampled from households without children. In these households one or two adults were randomly selected for the Option B interview.

The interviews and screener were programmed into Westat's CATI system to facilitate administration and data editing. The initial screening, using the Version 1 screener (see section 2.1), began January 6, 1997, and ended February 14, 1997. This initial screening operation was designed as a head start on data collection by identifying and subsampling (as appropriate) eligible households. Extended interviews were not attempted until February 15, 1997, so that each household had a chance to receive all of their 1996 tax forms prior to the interview and thus be able to answer questions about 1996 income more easily. After February 15, information obtained during the Version 1 screener was verified before the interviewer proceeded to the extended interview. A second version of the screener was also introduced on February 15. This version allowed the interviewer to proceed directly into the extended interview if the household was sampled.

We originally planned to end the survey at the end of May 1997, but the field period was lengthened because the interview process took longer than expected and because an additional site, Colorado, was added to the sample in June. All interviewing activities ended on November 2, 1997.

Prior to the initial contact, each household for whom we could obtain an address was mailed a prenotification letter that contained information about the survey, along with an endorsement letter from a governor or state agency in some of the states (Florida, Massachusetts, Minnesota, New Jersey, New York, Washington, and Colorado). The Version 1 screener included questions to obtain the address of each sampled household in order to send a letter explaining the survey, an endorsement letter (if appropriate), and a brochure. This procedure was not followed during the Version 2 screener until late in the field period, and then only under special circumstances (see section 2.1). Refusal conversion letters were also sent at both the screener and extended interview levels. This protocol is discussed in detail in section 5.8.

All interviewing was conducted from one of three central interviewing facilities, two of which were operated by Westat and known as the Telephone Research Center (TRC) and one of which was operated by a subcontractor. The Westat facilities are located in Frederick and Rockville, Maryland, and the subcontractor's site is in Lebanon, Virginia. A total of 652 interviewers were trained across the three sites, 234 in Frederick, 210 in Rockville, and 208 in Lebanon. In-person interviewers used cell phones and called in interviews to the Frederick and Rockville telephone centers. This procedure is described in *In-Person Survey Methods*, Report No. 5 in this methodology series.

A variety of quality control methods were used in the NSAF. Some of them, such as CATI testing and training, were used prior to the beginning of data collection as preventive quality controls. Others, such as supplemental interviewer training, monitoring, and comment and problem sheet review were used during data collection to respond to issues with interviewers or to make adjustments to the questionnaire. Issues that involved data preparation and editing are discussed in more detail in *Data Editing and Imputation*, Report No. 10 in this methodology series.

There were a few minor difficulties with the NSAF survey. Two that are discussed in this report are within-household coverage issues and family definition problems.

Details of the telephone component are discussed in the sections that follow. The telephone screeners (Version 1 and 2) and the pretesting sequence that led to their development are discussed in chapter 2. The extended interview development and pretests are described in chapter 3, while chapter 4 focuses on training. Scheduling and the release of work are described in chapter 5, quality control in chapter 6, and difficulties with the NSAF survey in chapter 7.

2. DEVELOPMENT OF THE SCREENING INTERVIEW

In this section, the screening interview is described, including the flow of the Version 1 and 2 screeners, the paths of the interviews, the process for developing the screener, the screener's content, the selection of respondents, pretests used to test the screener, and changes to the screener introduction during the field period. The extended interview is described in chapter 3.

The screening interview was used to screen households on the basis of age composition. If there was someone in the household who was age eligible, the household was then sampled on the basis of household income. Once a household was sampled, the extended interview was administered to the selected respondent.

2.1 Flow of the Version 1 and 2 Screeners

Two versions of the screener were needed to accommodate the two stages of data collection. The first stage started January 6 and included only screening interviews. The second stage started February 15 and included both screening and extended interviews. Extended interviews were not administered until February in order to allow time for respondents to receive their income tax information for 1996 (e.g., W-2 forms). This, in turn, would improve the information that was collected on income during the extended interview. The first and second stage screening interviews are described below.

Version 1 Screener. Between January and mid-February 1997, screening interviews for the first stage were completed without extended interviews. These interviews were called Version 1 screeners. The Version 1 screener contained questions to identify telephone numbers that were for residential use and to locate households that were eligible for the extended interview. In those households where there was an eligible person, the Version 1 screener offered a mailout (a letter, a state endorsement letter if applicable, and a brochure) to those persons who were interested in receiving more information about the study. In households with no eligible persons, a question was included to determine whether an eligible person would be moving into the household in the next few months. If so, the household would be called back during the extended interviewing phase. If not, a final ineligible result code was assigned and no further calls to that household were made.

Verification and Version 2 Screener. Beginning in mid-February, interviewers began administering both screeners and extended interviews in the same phone call. Those individuals who were identified as eligible on the Version 1 screener were called back. At the beginning of this call, the information that was originally collected was verified (e.g., household income and the composition of the household). If any information had changed since the original screener was administered, the household roster was resampled based on the latest information. (Unless everyone was over 65, the household stayed in the sample but a new person could be sampled.)

For new telephone numbers or for those numbers where there had previously been no result (e.g., callbacks, no answers), the Version 2 screener for the second stage of data collection was

administered. This screener was essentially identical to Version 1, except that rather than terminating the contact after an eligible person was found, the interviewer attempted to continue with the extended interview by asking to speak to the selected respondent. In addition, the Version 2 screener did not ask if the household expected any children or adults to become members of the household in the next few months or whether the respondent would like more information about the study.

Late in the field period, procedures were changed for the Version 2 screener. Analyses during the field period showed that the Version 1 procedure of breaking off the screener and conducting the extended interview at a later time had a higher response rate than the Version 2 procedure of trying to conduct the extended interview immediately after the screener. It was expected that keeping the respondent on the telephone would result in a *higher* response rate than breaking off the interview to continue the extended interview at a later time. However, this is not what occurred. In part, the higher response rate in the Version 1 procedure may have resulted from offering the respondent information about the study after the screener. Thus, procedures were changed to simulate Version 1. Whenever there was a switch in respondents between the Version 2 screener and the extended interview, the respondent was asked whether he or she would like to get more information about the study (if there was no switch in respondents, it was assumed that the respondent was cooperative enough not to need additional information before participating in the extended interview). If so, a mailout was sent that included a letter to remind the respondent about the extended interview, a state support letter (where applicable), a brochure, and \$5.

2.2 “Option A” Versus “Option A and B” Paths

The screening interview’s purpose varied, depending on whether the interview was in a path designated for child interviews (the “Option A” path) or a path designated for both child and adult interviews (the “Option A and B” paths). Option A households contained at least one child between the ages 0 and 17. Option B households were those with no children under the age of 18 and at least one person who was 18 to 64 years old.

In the Option A group, screener questions were administered to locate households with eligible focal children. If a household did not have any children, it was ineligible. In the Option A and B group, screener questions were included that tried to locate either a household with focal children or a household with at least one member between the ages of 18 to 64.

2.3 Process of Developing the Screener

The screener was developed by Westat and the Urban Institute. The basic foundation of the screener was taken from previous Westat CATI surveys. However, many specific questions were developed for the NSAF.

The purpose of the screener was to perform the following:

1. Find out if there is an eligible subject (or subjects) in the household, based on the requirements for the Option A or Option A and B paths.

2. Select eligible subject(s) for the extended interview (i.e., either focal child or adult). To do this, two pieces of information had to be collected. First, data had to be collected on whether total household income was above or below 200 percent of the poverty level (please refer to the Appendix of the 1999 *Snapshot of America's Families*). Those with incomes above 200 percent of the poverty level were sampled, while all those below were included in the study. Second, a listing of eligible subjects in the household was collected. For Option A households, this was a list of children in the household who were 0 to 17 years old, along with their respective ages. For the Option B households, this was a list of all adults in the household between ages 18 and 64. Once the listing was obtained, subjects were sampled for the extended interview. For Option A households, there could be up to two subjects (one child 0 to 5 years old and one child 6 to 17 years old). For Option B, there could be up to two adults selected.
3. Identify the MKA in Option A households. For Option A households, the respondent for the extended interview was the person who knew the most about the health and education of the selected child. Once a child was selected as a subject, therefore, data had to be collected to determine the identity of the MKA.

In developing the screener, several design principles were used to ensure a minimal amount of nonresponse. First, the introduction needed to keep the respondent's interest in the study, as well as motivate him or her to answer subsequent questions. Previous experience on similar screeners for other studies has shown that more than 80 percent of the refusals occur during the introduction or first question. Most people make up their minds to hang up based on what is said during this part of the interview. Therefore, a large portion of the development effort focused on experimenting with different introductions (see section 2.6.1 below for a discussion of pretests for different introductions).

Second, information had to be collected in ways that were not perceived as insensitive. To determine eligibility for the NSAF, we had to ask about the income of persons in the household. To sample, we had to ask about the individuals living in the household (e.g., name or initials, along with ages). Because adults tend to be very protective, collecting this information for children must be handled especially carefully. Finally, specific information about the identity of the MKA or Option B adult (e.g., name) was important, because this serves as the only link between the screener and the extended interview.

The general approach taken to collect this information was to (1) screen out households as fast as possible, (2) try to develop rapport with the respondent before asking the most sensitive questions, and (3) ask for only the minimum amount of information necessary.

2.4 Screener Content

After considering important design principles and the study's needs, described above, the final screener content was developed. Both Versions 1 and 2 screeners contained the following sequence of items:

1. An introduction that identified the interviewer and briefly explained the purpose of the call.

2. Questions that confirmed that the interviewer was speaking to a member of the household who was at least 18 years old. If all household members were less than 18, we asked to speak to the male or female head of household. Such households consisted of one or more emancipated minors.
3. A question that determined whether or not the phone reached was for residential use. If not, the screener terminated with a closing statement for nonresidences, and the screener was finalized with a nonresidential result code.
4. A question that determined whether anyone in the household was under age 65. If no one under 65 lived in the household, an ineligible result code was assigned. For Version 1 screeners, a “no” response to this question prompted a follow-up question to determine whether someone under 65 was expected to move into the household in the next few months. If so, the household was called back using a Version 2 screener.
5. A question that determined whether there were any children 17 or under in the household. The response to this question determined whether the household had any eligible children. In Version 1, if the answer to this was “no,” a follow-up question was used to determine whether anyone under the age of 18 was expected to join the household. If so, the household was called back using a Version 2 screener.
6. A question about the total number of people who lived in the household. This was used to determine what the threshold for 200 percent of poverty level would be (please refer to the appendix of the 1999 *Snapshots of America’s Families*).
7. A series of opinion questions on ways to improve education in the country. These questions were placed immediately prior to the question about income in order to focus the respondent’s attention on a substantive area that would legitimize the study.
8. A question to determine whether the household was below 200 percent of the poverty level. This was a single item that asked if the total family income was above or below a particular income level (e.g., \$15,000). The level was calculated based on the size of the household.
9. A question to identify the children (ages 0 to 17) or adults (ages 18 to 64) in the household. Once this list was compiled, the CATI program sampled up to two children or up to two adults for subjects on the extended interview.
10. A series of questions to determine the name and relationship of the person most knowledgeable about the selected child or children (the MKA). These questions were asked only if the household included children who had been sampled for the extended interview.

At the end of the Version 1 screener, the interviewer asked whether the respondent would be interested in getting more information about the study. If the respondent agreed, then mailing information for the household was collected. At the end of the Version 2 screener, the interviewer asked to speak to the first person selected for the extended interview. This was either

the MKA chosen to talk about one of the focal children (see steps 9 and 10 above) or an adult who had been selected.

2.5 Emancipated Minors

In all but a few cases, if a household respondent was eligible, the screener identified an adult respondent to complete either an adult interview about himself or herself or an interview about a child or children. In 27 cases, we encountered a youth under the age of 18 who was living independently, without a parent or guardian who was 18 years old or older. These youths were treated as emancipated minors and were eligible to be interviewed using an adult interview if they were at least 16 years old. In addition, data were collected on eight other selected emancipated minors through related child interviews in the household conducted with either the emancipated minor (when he or she served as the MKA for another child) or with the emancipated minor's spouse or unmarried partner (also when he or she served as the MKA for another child). No interviews were administered to persons under the age of 16.

Emancipated minors were found at different points in the process. Some were found when the screener questions were initially confirming that the respondent was at least 18 years old. If the respondent was not at least 18 and stated there was no one in the household who was at least 18, the screener was completed with the person who was considered the head of the household. The household head was considered an emancipated minor and was eligible for the adult interview. Emancipated minors were also found when the MKA was selected. If the selected child had no parent or guardian living in the household, or the MKA was a roommate, spouse/partner, or sibling, and the child was over 16 years old, he or she was considered an emancipated minor and an adult interview was administered.

An emancipated minor could serve as an MKA (if appropriate) or as another adult in the household. For example, if the emancipated minor was selected as both a child and as the MKA for a younger child, the emancipated minor was administered the MKA interview for the younger child. No other interviews were administered related to the emancipated minor's status as a child. Similarly, if the emancipated minor was the spouse/partner of the MKA for the younger child, no other interviews were administered. If the emancipated minor was neither the MKA nor the spouse/partner of an MKA but was sampled as part of the study, the adult interview was administered.

2.6 Pretests

To develop the screener, a series of small pretests was conducted. The bulk of the development was completed with hard-copy questionnaires. In this phase, the initial questionnaires were developed and different introductions were tested. In the final stages of development, a CATI pretest was conducted. The primary purpose of this test was to translate the questionnaire to CATI specifications and test the program for full-scale production.

2.6.1 Hard-Copy Pretests

The hard-copy pretests were used to make most of the major design decisions for the screener. This included what introduction to use, the sequencing of particular items, and the final wording of particular items.

Initially, a single screener was developed. It included a preliminary introduction, as well as the wording/sequence of the items on the instrument. After the initial development phase, work concentrated on the introduction. The reasoning behind the development of the body of the screener was provided above in section 2.3. The results reported below primarily cover the work on the introduction.

Development of the introduction was completed through a series of small-scale experiments (sample sizes ranging from 100 to 200 per condition). The experiments were meant to test different design principles related to the introduction, including (1) offering an incentive to eligible respondents, (2) identification of the sponsor of the survey, (3) the amount of information provided on the importance of the study, (4) the sequence of the questions asked immediately after the introduction, and (5) a statement that explained that the call was not soliciting money.

These experiments were completed using telephone numbers that were drawn from telephone directories in areas where a high concentration of low-income families was expected. The areas called were concentrated in Michigan, West Virginia, Virginia, Massachusetts, and New Jersey. For each experiment, each interviewer was expected to administer both experimental instruments. The interviewer switched each time some contact was made with the respondent (e.g., complete, refusal, appointment, callback).

The primary outcome measure for the experiments was a “cooperation rate,” which was calculated as shown here:

$$CR = (\text{completes} + \text{ineligibles}) / (\text{completes} + \text{ineligibles} + \text{refusals}) \times 100. \quad (2-1)$$

The numerator consists of persons who completed the entire screener because there was an eligible subject in the household (either Option A or B) and those households where no eligible subjects were found (i.e., household had no persons less than 65 years old). The denominator adds in those persons who refused to provide enough information to determine eligibility. No attempts were made to convert refusals.

It should be noted that the statistical power of these tests is very low. That is, the differences between experimental conditions had to be fairly large before a statistically significant difference would be found. For example, when the size of each group was 100, the difference had to be about 10 percentage points to show a significant effect. Given this, decisions about the “best” introduction were based on not only the comparative CRs but also interviewer feedback and theoretical expectations about what we felt would or would not work.

The results of each of the pretests are presented in table 2-1. Each pair of columns in the table represents each experiment that was carried out. In the remainder of this section, the results of each experiment are described in more detail.

Table 2-1.
Results of Hard-Copy Experiments Testing Different Screening Instruments

Item	Paired experiments by instrument number													
	1	2	3	4	3	5	3	6	3	7	3	8	3	9
Completes	76	103	41	36	69	62	152	123	57	57	32	27	110	122
Refusals	98	91	28	37	60	53	104	130	40	46	30	23	114	92
Ineligibles	36	37	23	16	19	17	68	51	29	23	11	19	53	41
CR*	53.3	60.6	69.6	58.4	59.5	59.8	67.9	57.2	68.3	63.5	58.9	66.7	58.8	63.9
N	210	231	92	89	148	132	324	304	126	126	73	69	277	255
Variance	11.85	10.34	23.01	27.29	16.29	18.20	6.73	8.05	17.20	18.40	33.16	32.21	8.74	9.04
Standard error for difference	4.71		7.09		5.87		3.84		5.97		8.08		4.22	
t-ratio for difference	-1.54		1.57		-0.07		2.77		0.80		-0.96		-1.20	

* CR: cooperation rate = [(completes + ineligibles)/(completes + ineligibles + refusals)] x 100

Offering an Incentive to Eligible Respondents. One way to increase cooperation is to offer a monetary incentive to participate in the survey. Much of the research on the effects of monetary incentives on response rates has been done in the context of mail and personal interviews (Singer et al. forthcoming; Schewe and Cournoyer 1976; Church 1993; Yu and Cooper 1983; Kulka 1994; Armstrong 1975; Berk et al. 1993). Very little of this research (if any) has been done in the context of an RDD screening instrument (for an exception, see Strouse and Hall 1997). In the context of a mail survey, the research suggests that for an incentive to be most effective, the respondent should be provided the money before participating in the survey. In an RDD telephone survey, there is very little opportunity (if any) to provide the incentive prior to the initial phone call, so offering an incentive over the phone may not be particularly effective.

Despite our initial expectations based on previous research, we felt that it was worth trying to offer an incentive to get respondents to stay on the phone, at least past the introduction of the screener. To test this idea, a \$5 incentive was offered to the person who would eventually be eligible to be the respondent on the survey. The following introductions were used:

Instrument 1 (with incentive)

Hello, this is (NAME) and I'm calling for the Urban Institute, a private nonprofit research center that is interested in the well-being of adults and families. We are preparing for a study on how changes in health care, education, and human services in (STATE) are affecting people like yourself. We are offering \$5 to those persons who are eligible and agree to participate in a telephone interview.

To find out if someone in your household is eligible, I need to ask a few questions about who lives there. These questions will take about three minutes.

Instrument 2 (without incentive)

Hello, this is (NAME) and I'm calling for the Urban Institute, a private nonprofit research center that is interested in the well-being of adults and families. We are preparing for a study on how changes in health care, education, and human services in (STATE) are affecting people like yourself.

To find out if someone in your household is eligible, I need to ask a few questions about who lives there. These questions will take about three minutes.

The difference between Instruments 1 and 2 is that the former includes a statement about \$5, an explanation about who is eligible for the money, and an estimate of how long the interview will take. All other parts of the introduction are the same.

As can be seen in table 2-1, inclusion of an offer of money actually reduced, rather than increased, the cooperation rate (53.3 percent versus 60.6 percent). The difference is marginally significant ($p < .15$ using a two-tailed test).

Of the 98 persons who refused Instrument 1, 77 individuals hung up either during or shortly after the introduction was read. Slightly over half of these (48) stayed on the line long enough to hear the offer of \$5. The other 29 hung up before the introduction was finished. An additional 11 people hung up either during or right after the first question was read ("Is the person at least 18 years old and a member of the household?"). This means 90 percent (88 of the 98) of the people that refused the screener hung up without speaking to the interviewer. The interviewer was either reading the introduction or the first question when the respondent hung up. The pattern was similar across Instrument 2—78 of the 91 persons who refused hung up either during the introduction or at the first questionnaire item.

Study Sponsorship. An important component of the introduction is the organization identified as the sponsor of the study. If the organization is perceived as credible, then the respondent should be more likely to listen to what the interviewer is saying and react in a positive manner. It is widely believed that for this purpose, a government agency, especially the federal government, is the most credible. Presumably, this is because calls from a government agency have the best chance of not being mistaken for calls from marketing organizations, calls asking for money, or calls from individuals running "scams" over the phone.

The NSAF is sponsored by a number of private foundations, not a particular federal or state agency. It was unclear, therefore, what organizations should be mentioned in the introduction. Consequently, two experiments were completed that varied the organizations that were named in

the introduction to see whether this would affect the cooperation rate. The first experiment consisted of the following introductions:

Instrument 3

Hello, this is (NAME) and we are preparing for a study related to health care, education, and human services. The study is sponsored by several private foundations and has been endorsed by state governments interested in measuring the impact of government policies on families and children.

Instrument 4

Hello, this is (NAME) and I'm calling for the Urban Institute, a nonprofit research center that is preparing for a study on how policies on health care, education, and human services are affecting family and children in (STATE).

Instrument 3 reports private foundations as the sponsor and the state government as endorsing the study. Instrument 4 does not mention a specific sponsor, but does mention the Urban Institute as the organization affiliated with the survey.

The results in table 2-1 indicate that Instrument 3 performed marginally better (a cooperation rate 69.6 percent versus 58.4 percent, $p < .15$), using a two-tailed test. The pattern of nonresponses was similar to those for the previous pretests—most people hung up at the introduction, with many of the remaining refusers hanging up at the first question.

The second test consisted of changing Instrument 4 to include Child Trends as an organization named in the introduction:

Instrument 5

Hello, this is (NAME) and I'm calling for the Urban Institute and Child Trends, nonprofit research centers that are preparing for a study on how policies on health care, education, and human services are affecting families and children in (STATE).

The results indicated no difference between the two introductions. Instrument 3 had a response rate of 59.5 percent, while Instrument 5 had a response rate of 59.8 percent. Based on the belief that it was more important to mention the actual sponsor of the survey for disclosure reasons (i.e., private foundations) and that the study was endorsed by some government organizations (for credibility), Instrument 3 was selected for further pretesting.

Emphasizing the Importance of the Study. The literature on mail and telephone surveys puts some emphasis on explaining to the respondent why the study is important (Dillman 1978). To the extent that respondents feel the purpose of the interview is legitimate and worthwhile, they

should be more likely to participate. Most of the introductions tested to this point did not say much about why the study was important. The introductions were written to be as short as possible.

We also conducted an experiment comparing the short introduction developed to this point (Instrument 3) with a longer one that provided more information about the study. This longer introduction was worded as follows:

Instrument 6

Hello, my name is (NAME), and I am calling from Westat, a research organization in the Washington, D.C., area. Because there have been important changes in how the government helps people this year, we're preparing to do a study to find out how these changes will affect people in (STATE). The results of this study will be used by policymakers who are interested in improving how the government helps adults and children in (STATE). These questions take about three to five minutes.

As shown in table 2-1, the results show the shorter introduction did much better (67.9 percent versus 57.2 percent; $p < .01$ two-tailed test). On the basis of this result, the shorter introduction was retained for further testing.¹

Changing the First Question. While a number of respondents hung up before the introduction was completed, a significant number of people heard at least part of the first question (i.e., "Are you a member of the household at least 18 years old?"). It wasn't clear whether these individuals were hanging up because the first question was unacceptable or based on what they had heard in the introduction. If many people hung up because of the first question, then it might be possible to improve the response rate by using a different type of question.

To test this hypothesis, the screener was redesigned, with several of the questions that asked for opinions about education moved to the beginning of the screener. As mentioned earlier, on Instrument 3, four questions asking for opinions on education had been placed between the item on household size and income. These questions were intended to give the respondent an idea of what the content of the survey might be before shifting to the more sensitive income question. For this test, two of these questions were moved to the beginning of the screener.

These questions included the following:

Instrument 7

1. I would like your opinion about ways to improve education in this country. Which of the following do you feel would be effective in

¹ Although the cooperation rates for the longer introduction (57.2percent) and the \$5 incentive condition above (53.3 percent) may be statistically equivalent, comparisons across experiments cannot be made because the experiments were done at different times, the samples may have been slightly different between experiments, and interviewers may have worked slightly different hours. These differences may introduce variation in the response rates across experiments that leads to noncomparability.

improving public education? Would (INSERT) be effective in improving public education?

	YES	NO
a. Enforcing stricter discipline in schools	1	2
b. Not promoting students to the next grade unless they meet strict standards.....	1	2

Both of the screeners used the same introduction (Instrument 3 above).

The results of this test were not statistically conclusive. Instrument 3 had a response rate of 68.3 percent, while Instrument 7 had a slightly lower response rate of 63.5 percent. Instrument 3 was carried forward for further testing. The main advantage of Instrument 3 was that it accomplished the initial purpose of the screener faster by asking preliminary questions first (e.g., business use of the phone, whether anyone in the household was less than 65 years old). Without compelling evidence that the new strategy was clearly better, we decided to stay with Instrument 3.

Statement of Nonsolicitation. As mentioned above, an important advantage of mentioning government sponsorship is that it implicitly rules out the possibility that the purpose of the call is to ask for money or that the call is a scam. Because the study did not include government sponsorship, all introductions tested to this point left respondents with some doubt about whether they would eventually be asked for money. Based on this reasoning, we hypothesized that cooperation would increase if the introduction explicitly stated the call was not asking for money.

Two sets of introductions were tested for this purpose. The following wording was used for the first introduction:

Instrument 8

Hello, this is (NAME), and we are preparing for a study related to health care, education, and human services. The study is sponsored by several private foundations and has been endorsed by state governments interested in measuring the effects of government policies on families and children. We are not asking for a donation or trying to sell you anything.

The results of this test showed that Instrument 8 had a of 66.7 percent cooperation rate ,compared with a rate of 58.9 percent for Instrument 3. The differences in the rates were not statistically significant. However, the sample size was relatively small. The magnitude of the difference (66.7 percent – 58.9 percent = 7.8 percent) was relatively large compared with other results. In addition, interviewers preferred the new introduction because of the nonsolicitation statement.

In response, a second experiment was run, with a different set of interviewers. This new introduction was worded as follows:

Instrument 9

Hello, my name is (NAME), and we are preparing to do a study for private foundations interested in education, health care, and other services in (STATE). The study has been endorsed by state governments concerned with how recent changes in policies affect people's lives. I am not asking for money—I'd only like to ask you a few brief questions.

This introduction differs from Instrument 8, rewording the statement of purpose by incorporating the name of the state and simplifying the language used to describe the overall goal of the study. It includes a statement about not asking for money and, in addition, states that the interview will be relatively brief.

The results of the test show that Instrument 9 had a cooperation rate of 63.9 percent, while Instrument 3 had a rate of 58.8 percent. This difference was marginally *insignificant* ($p < .15$ using a one-tailed test). However, the results were consistent with those found for Instrument 8, both of which included the nonsolicitation statement. As with Instrument 8, the interviewers preferred Instrument 9 to Instrument 3.

As a result of this final test, Instrument 9 was adopted as the introduction.

2.6.2 CATI Pretest

Once the hard copy was finalized, a CATI pretest was conducted to test out the CATI software, as well as to get a better idea of the training issues related to administering the instrument. This was also the first time the screener was administered to a sample that was generated using RDD methods. Because persons with unlisted numbers are generally considered more likely to refuse than those with listed numbers, this test provided an indication of how respondents selected into the production sample would react to the questions.

The sample was generated to produce telephone numbers for states that were east of the Mississippi River. This was done to minimize the need to administer screeners late at night. A total of 11 interviewers were trained to do the screeners. Unlike the hard-copy pretest, some refusal conversion was carried out. The screening was done over a two-week period, with a total of 4,100 numbers generated from an RDD process.

For purposes of this test, Instrument 3 above was used. The tests involving Instruments 8 and 9 were in process while the CATI test was in the field.

The results of the screening are shown in table 2-2. When interpreting these results, keep in mind that the field period was relatively short (about two weeks), so a relatively large number of cases remained in the “no contact” and “maximum call” groups. The “no contact” category represents those telephone numbers where there was never an answer. The “maximum calls” are those numbers where an initial contact had been made but subsequent calls had not resulted in any finalized results (e.g., complete or refusal).

**Table 2-2.
Detailed Result of CATI Pretest of Screener**

Completes ¹	1,349
Initial complete	1,077
Converted refusal	272
Final refusal	515
Interim	387
No contacts	212
Maximum calls	127
Other ²	48
Nonresidential	1,849
Language problems	60
Total	4,100

¹ “Completes” included those screened as either eligible or ineligible for the study.

² “Other interim” included callbacks, answering machines, and problems.

Several differences exist between the CATI pretest and the procedures instituted for the main study. First, while refusal conversion was done on the CATI pretest, it was not as intense as it was for the main study. For the CATI pretest, all of the initial refusals were called, but there were no second or third follow-ups (approximately 35 percent of initial refusals were converted). Second, the households included in the pretest were not sent any prenotification letters. In the main study, the random numbers were matched against telephone directories and prenotification letters were sent out to those numbers that matched. This has been found to increase the overall screener response rate. Third, the introduction used on the CATI pretest was not the one that was used in the main study. And fourth, the sample used in the pretest was not the entire U.S. population. While it was selected over a relatively large geographic region (area codes east of the Mississippi), it is unclear how the rates for this sample would generalize to the entire country.

Observations relative to the rest of the screener were consistent with what had already been observed from the hard-copy pretests. Once respondents got past the first question, they were much more likely to complete the screener. The opinion questions on education used to make the transition to the income question worked very well, and respondents were generally willing to provide a list of persons living in the household.

2.7 Changes in Screener Introductions During Field Period

The introduction was changed twice during the field period based on comments from the interviewers and observations by project staff (these changes are also described in *Response Rates and Methods Evaluation*, No. 8 in this methodology series). The first change, was based on

the desire to shorten the introduction, occurred at the end of May. By that time, interviewers had been reading the same introduction for as much as five months, and we felt that shortening the text might provide new fresh perspective. To shorten the introduction, we eliminated any mention of the sponsor and the specific content of the survey:

Hello, this is (NAME), and I am calling for the National Survey of America's Families. We are not asking for money. This is a project that has been endorsed by (STATE) to see how recent changes in federal laws affect people's lives in your community.

This resulted in a noticeable but temporary bump of 2 percent to 4 percent in the initial cooperation rate (from 56 percent to 60 percent).

A second change in the introduction was tested late in July 1997, about seven months into the field period, when a relatively high percentage of the work was refusal conversion. This change involved eliminating any mention of the state endorsement in the introduction or in the prenotification materials. Based on observations and comments from the interviewers, the project staff were skeptical that the state endorsement portion of the introduction was being heard clearly by the respondents.

To test this, "first refusal conversion cases" were randomly assigned to two groups. One group was read a revised introduction that did not mention the state endorsements, and the second group was read the introduction shown above mentioning state endorsements. This was conducted in three states where the study had received some type of endorsement (Florida, New Jersey, and New York). The results are shown in table 2-3, which shows that there was virtually no difference between the two conditions. As a result of this experiment, the state endorsement was dropped from the introduction through the end of the field period.

Table 2-3.
**Refusal Conversion Rates for the Screener by Whether or Not a State Endorsement Was
Mentioned in the Introduction***

State Endorsement?	Conversion Rate	N
No	53.0	1,284
Yes	53.8	1,254

* Conducted for Florida, New Jersey, and New York

2.8 Summary

The screening interview was used to determine whether any household members were eligible for the extended interview. Eligibility was based on the age of household members and on the income level of the household. All screeners were conducted in one of two paths. The first path was only for child interviews. The second path was for child and adult interviews.

Two versions of the screener were developed—one to screen households starting in January, before extended interviewing was conducted, and one to screen households starting in February and lead into an extended interview if a household member was selected.

The screener was developed by Westat and the Urban Institute. The general approach was to (1) screen out households as fast as possible, (2) try to develop rapport with the respondent before asking the most sensitive questions, and (3) ask for only the minimum amount of information necessary.

A series of pretests were conducted to test the screener. First, hard-copy pretests were used to determine the best introduction and flow for the screener. Experiments were conducted that varied features of the introduction, such as whether an incentive was offered and whether the study sponsor was named. Second, a CATI pretest was used to check programming and to get an idea of training issues related to administering the instrument.

Over the field period the screener introduction changed twice, once at the end of May and once at the end of July. These changes tested the importance of referring to a sponsor and of mentioning state endorsements. One of the tests produced a temporary improvement in the initial cooperation rate. The other showed no effect. These experiments were important for further determining what features of the screener introduction were and were not effective.

3. EXTENDED INTERVIEW

In this section we describe all aspects of the extended interview for the 1997 NSAF. We outline the process of compiling questions for the interviews and making design decisions, the flow of the extended interviews, the content of the questionnaire, pretests that were conducted, special procedures that were used in administering extended interviews, and significant changes in the questionnaire content during the course of the study.

3.1 Process of Compiling Questions and Making Design Decisions

The Urban Institute and Child Trends compiled most of the questions for the first draft of the extended interview. Priorities for question areas were further refined at a kick-off meeting on August 26, 1996. Westat provided comments on the questionnaire following this meeting and supplied other items for particular survey needs (e.g., questions about household membership, the problem of telephone service interruption). Westat also worked with the Urban Institute to create a definition of family for the survey and to determine what questions were necessary for the coding of occupation and industry variables. Changes to question wording, response categories, and skip patterns were made after discussions with Westat and internal discussions at the Urban Institute as successive drafts of the questionnaire were reviewed and tested in CATI.

Once the content of the child interview was decided, the content of adult interviews was determined. Further design decisions regarding the order of interviews were made in the fall of 1996. These are described in section 3.2.

During the spring of 1997, more questions were compiled by the Urban Institute and Child Trends to address changes to items that were necessary to make them appropriate to the summer months, when most children were not attending school. Questions were altered or added for this purpose in sections C (Parent/Child/Family Interactions and Education) and G (Child Care).

3.2 Flow of Extended Interviews

The flow of extended interviews within a household was based on rules that determined the order and types of interviews that would be administered. Multiple extended interviews could be conducted in a household after the screener was completed. Child interviews were referred to as Option A interviews, and adult interviews were referred to as Option B interviews. For details about who was included and excluded in the sample design, see *Sample Design*, Report No. 2 in this methodology series.

In each household that had multiple child or adult interviews, there were two different versions of the questionnaire—a full and an abbreviated version. The full version was always conducted first, followed by one of two types of abbreviated versions. One version was for cases in which the respondent for the abbreviated questionnaire was in the same family, and the other version was for cases in which he or she was in a different family. If the respondent was in the same family as the respondent to the full questionnaire, many questions about the household and

family did not need to be asked again. If the respondent to the second questionnaire was not in the same family, questions about the household did not have to be repeated, but some family questions were asked again.

For child interviews, there was also an order rule based on the age of the focal child. If there were two selected children and two persons named as the MKAs, the MKA interview for the older child was conducted first. This is because it was believed that the MKA interview for the older child would usually be older and better able to provide some of the income and health care information than the younger MKA. Also, in cases in which we were speaking to a mother and her young daughter as MKAs (the mother as the MKA for her daughter, and the daughter as the MKA for a younger child), it was agreed that it was more appropriate to interview the mother before talking to her daughter.

In addition, there were also order rules across types of interviews. Adult interviews could follow child interviews. These were referred to as “Option B stragglers.” Eligible adult stragglers were those who were not the spouse/partner of an MKA or an emancipated minor and not the parent of, nor the spouse/partner of a parent of, any child under 18 in the household. Up to two of these adults could be sampled from a household to be administered an adult extended interview. In adult-only households, an adult interview could also follow another adult interview. However, child interviews could never follow adult interviews.

Because of the many types of interviews that could be administered, interview types were numbered within Option A child and Option B adult interviews. Each type is defined below:

- A1: Option A interview with the first MKA
- A2: Option A interview with a second MKA, both MKAs are in the same family
- A3: Option A interview with a second MKA; MKAs are not in the same family
- B1: Option B interview with the first adult
- B2: Option B interview with a second adult, both adults are in the same family
- B3: Option B interview with a second adult; adults are not in the same family
- B4: Option B interview with an emancipated minor
- B5: Option B interview with an emancipated minor; minor is in a different family

The child interview required longer to administer, on average, than the adult interview. On average, the child interview was 38.5 minutes long, and the adult interview was 22.9 minutes long.

3.3 Questionnaire Content

The questionnaire was designed to progress from less sensitive to more sensitive topics. We also assumed that parents would be more likely to talk about their children first rather than themselves, so questions about children's health and education were asked before questions about household membership and relationships.

The 1997 NSAF extended interview was divided into 16 sections, labeled sections A through P (see Urban Institute 1997). Listed below is a brief description of the content areas of each section along with an indication of the "unit" (in bold) upon which the section focused. Sometimes the "unit" of a section was everyone in the household, sometimes it was everyone in the family, sometimes it was the respondent (and his/her spouse/partner), and sometimes it was the focal child(ren) themselves. The sections were the following:

- A. **Student Status.** This section contained two questions—one that asked whether the respondent was a student and one that asked whether this was the respondent's usual residence. The questions in section A were asked of **respondents** who were 16 to 24 years old. If the household was not the respondent's usual residence, the CATI system would determine that the respondent was ineligible to continue at this point.
- B. **Health Status and Satisfaction.** In section B, questions were asked about the respondent's satisfaction with health care, access to health care, the health status of **focal children** and, in some interviews, the health status of the **respondent**. Questions were also asked about whether the respondent had heard of health care programs specific to his/her state.
- C. **Parent/Child/Family Interaction and Education.** This series of questions asked about education for **focal children**. Questions included the focal child's current grade (or the last grade completed), the child's attitudes toward school and schoolwork, truancy, suspensions, and changing schools. For children over 11 years old, there were also questions about working for pay during the last four weeks.
- D. **Household Roster.** In this section, the name, age, and sex of all persons living in the **household** were recorded. Questions were asked in order to identify the relationships between all household members.
- E. **Health Care Coverage.** For the **respondent, the respondent's spouse/partner (if applicable), and the focal children (if any)**, information was gathered about current health insurance coverage (or lack thereof). Questions were also asked about coverage for the past 12 months and periods in which family members had no insurance. For family members with particular types of coverage, questions were asked about the characteristics of their health plans.
- F. **Health Care Use and Access.** This section gathered information about health status, health care services received, and necessary health care services that were postponed during the last 12 months. This section included questions on routine care, overnight stays in hospitals, dental care, mental health care, women's health care, well-child care, and prescription medicines. Questions were asked about the **focal children and either the**

respondent OR his/her spouse/partner in the child interview. In the adult interview the questions were asked about the **adult and his/her spouse/partner**.

- G. Child Care.** In this section, we asked about child care arrangements of **focal children** who were under 13 years old. Child care arrangements included Head Start, child care centers, before- or after-school care, and babysitters. Questions asked about the total number of hours per week in each care situation, the typical number of children cared for, the typical number of adult child care providers, and child care costs.
- H. Nonresidential Parent/Father.** These questions determined whether a **focal child** had a nonresident parent, how often the child saw his/her nonresident parent, whether the nonresident parent provided financial support, and whether nonresident parents were required by child support orders to provide financial support.
- I. Employment and Earnings.** This section contained a series of questions about the employment and earnings of the **respondent and the spouse/partner** in the current year and the previous year. Questions covered current employment status, occupation, industry, employer-provided health insurance, hours worked, and earnings. Some questions were also asked about the earnings of **other family members**.
- J. Family Income.** **Family** income from a wide variety of “other” sources (not including earnings from employment) was identified. These sources included public assistance (Aid to Families with Dependent Children/Temporary Assistance for Needy Families, General Assistance, Emergency Assistance, vouchers), food stamps, child support, foster care payments, financial assistance from friends or relatives, unemployment compensation, workers compensation or veterans payments, Supplemental Security Income, Social Security, pension or annuity income, interest or dividend income, income from rental property, and any other source.
- K. Welfare Program Participation.** This section gathered detailed information about Aid to Families with Dependent Children/Temporary Assistance for Needy Families (AFDC/TANF) and food stamp benefits that the **respondent** might have received in the past two years. For both types of assistance, periods in which the respondent’s benefits were reduced or eliminated were identified, and strategies for coping during such times were described. Current AFDC/TANF or food stamp recipients were asked about any requirements they had to fulfill (job search, training, etc.) in order to receive these benefits. For respondents with children, questions were asked about benefits received in the previous year through WIC (supplemental food program for Women, Infants, and Children) and the free or reduced-cost school breakfast and lunch programs.
- L. Education and Training.** This series of questions was asked of the **respondent and his/her spouse or partner and focal children 15 years old or older**. Questions asked about the highest grade completed, highest degree earned, participation in job training programs during the past year, and classes taken for credit during the past year.
- M. Housing and Economic Hardship.** Questions covered the **respondent’s** living arrangement, the name(s) of the lease or mortgage holder(s) in the household, and the

amount of rent or mortgage paid monthly. Information was collected about financial contributions by the respondent or his/her spouse or partner to children under 18 living outside the household. The effect of economic hardship on the **family's** food consumption and ability to pay for housing costs was also assessed. The last questions in this section covered household telephone service over the past year.

- N. **Issues, Problems, and Social Services.** Questions in this section covered the **respondent's** state of mind, feelings about his or her child(ren), constructive activities the child(ren) may have been involved with (e.g., extracurricular activities, clubs, or sports), children's behavior, the availability of social services in their community, problems the child(ren) might have had in the past year, efforts to obtain help for those problems, and the respondent's involvement in volunteer and religious activities.
- O. **Race, Ethnicity, and Nativity.** Information about the race and ethnicity of **the respondent, the spouse/partner, and the focal children** was collected. For household members who were born outside the United States, country of origin and citizenship questions were asked.
- P. **Closing.** A short series of questions elicited the **respondent's** opinions about welfare and working and about raising children. Closing questions asked for zip code and, in households with foreign-born individuals, tracing information for use in a follow-up survey.

**Table 3-1.
Questionnaire Content by Type of Person, Family, or Household.**

Content Areas	Household	Family	Focal child			Respondent		Respondent's spouse/partner	Other family members
			Less than 13 years old	13 years old and older	15 years old and older	16 to 24 years old	More than 24 years old		
A: Student Status						X			
B: Health Status and Satisfaction			X	X	X	X	X		
C: Parent/Child/Family Interaction and Education			X	X	X				
D: Household Roster	X								
E: Health Care Coverage			X	X	X	X	X	X	
F: Health Care Use and Access			X	X	X	X	X	X	
G: Child Care			X						
H: Nonresidential Parent/Father			X	X	X				
I: Employment and Earnings						X	X	X	X
J: Family Income		X							
K: Welfare Program Participation						X	X		
L: Education and Training						X	X	X	
M: Housing and Economic Hardship	X	X				X	X	X	
N: Issues, Problems, Social Services			X	X	X	X	X		
O: Race, Ethnicity, and Nativity									
P: Closing	X	X				X	X		

3.4 Pretests

Two types of pretests were conducted for the extended interview. The first type used a hard-copy version of the questionnaire in order to refine questions before they were programmed into CATI. After the hard-copy pretests, the revised questions were programmed in and the second type of pretest, using CATI, was employed. Several CATI pretests were conducted to determine how well the questions and program were working. The procedures for each of these pretests are described below.

3.4.1 Hard-Copy Pretests

Two pretests of the extended interview were conducted using a hard-copy version of the questionnaire. In the first pretest, four experienced interviewers were trained (on September 11, 1996, and September 14, 1996). The pretest ran from September 15, 1996, through October 6, 1996. Eighty interviews were administered to respondents who had been screened as part of the screener pretests. Extensive changes were made to the wording of questions, as well as the overall order and flow of the items.

A second pretest took place October 13, 1996, through October 26, 1996, with the same four interviewers. Seventy-one more interviews were completed in this pretest. More changes were made after this pretest to refine question wording.

3.4.2 CATI Pretests

CATI pretests were conducted, first testing Option A and Option B interviews separately, and then testing combinations of multiple interviews in a household and testing household verification. Questions were changed in response to results from each of the pretests. Interviewer meetings were also conducted to get feedback about the questions and flow of the interviews.

The schedule for these pretests (and training) is shown in table 3-1.

**Table 3-2.
Dates for Pretests and Training: 1997 NSAF**

Dates	Activity
December 10–December 11, 1996	CATI pretest training on the extended interview was done with 10 interviewers.
December 12–December 18, 1996	Pretest production for Option A (child) interviews was conducted.
January 11–January 12, 1997	Pretest production for Option B (adult) interviews was conducted.
January 13, 1997	Option B pretest continued, but some extra Option A interviews were also included.
January 25–January 26, 1997;	A second extended CATI pretest was conducted, including

3.5 Special Procedures

Data collection for extended interviews started on February 15. Although most extended interviews were handled as planned, issues that required different procedures by specially trained interviewers arose. Special procedures included the use of proxy and facilitator interviews for respondents who could not do the interview without assistance, rules for conducting interviews with respondents who moved or who were students living outside the household, and strategies for dealing with cases in which household members were erroneously left off of the household roster. These issues are described below.

3.5.1 Proxy and Facilitator Interviews

“Proxy” interviews were conducted when the selected respondent was physically or mentally incapable of answering the questions or when he or she was not in the household because of hospitalization, moving out of the household, or living away at school as a student. The proxy respondent could answer questions without necessarily consulting the subject. Proxy respondents were asked most of the questions in the questionnaire, except for those that required opinions from the respondent (e.g., the respondent’s satisfaction with medical care).

“Facilitator” interviewers were used when the subject or household member was mentally competent to answer the questions and was present in the household but could not respond because of communication problems. Communication problems included hearing/speech problems or the selected respondent’s speaking a language other than English or Spanish. The facilitator respondent relayed questions and answers between the interviewer and the subject or household member. Both proxies and facilitators had to be at least 16 years old. Cases with proxy or facilitator interviews were marked by variables for questions that asked interviewers whether or not the interview was a proxy or facilitator interview, whether a proxy or facilitator respondent was available, the reason for the proxy, and the quality of information obtained. A total of 543 extended interviews were completed with proxies or facilitators.

Guidelines were developed to avoid proxy or facilitator interviews in some cases. For child interviews, efforts were made to replace the MKA with another respondent in the household who was knowledgeable about the child, rather than use a proxy. However, if there was no other household member who could be an MKA for the child, the interview was completed with a proxy or facilitator.

Also, if a respondent was hard of hearing or deaf, interviewers offered to call back using TTY/TTD services. If the respondent preferred this method to using a facilitator, we conducted the interview with the respondent. Fewer than five interviews were conducted using this method.

When proxy or facilitator interviews were conducted, additional questions were asked that determined the first name, age, and relationship of the proxy or facilitator to the respondent and

asked why a proxy or facilitator was needed. An additional question about the quality of the data collected was asked at the end of the interview for the interviewer to answer. Because we anticipated that some interviews would change from facilitator to proxy interviews (e.g., if it became too difficult for the facilitator to repeat questions or if the facilitator was more knowledgeable about some issues than the respondent), we also asked interviewers if the interview was completed mostly by a proxy, a facilitator, or both.

3.5.2 Movers

Another special procedure involved selected respondents who had moved from the household since their selection. Once respondents were selected for an extended interview, every effort was made to complete the interview with those respondents. The only exception to this occurred for some child interviews (see below). Approximately 300 questionnaires were attempted with movers. A total of 108 respondents were interviewed.²

Because many questions in the interview focused on household members, movers who were followed were asked to answer questions for the original household. This was necessary to make the household match the original household in the first screening or partially completed extended interview.

There were several rules that dictated how interviews with movers were handled. For example, in child interviews, we called an MKA at a different household if both the MKA and the focal child moved. Otherwise, if the MKA moved but the child did not, we selected a new MKA for the child. If the child moved, but the MKA did not, we interviewed the MKA about the child, even though the child no longer lived in the household. However, for cases in which there were two MKAs in a household and the MKA for the second child moved but the MKA for the first child was still in the household, the interview for the second child was done with a proxy respondent in the same household.

Other rules dictated the order of interviews with movers. For example, if a household had a child with a mover and an adult interview with a nonmover, the child interview was completed first and then the interviewer called the original household to contact the selected adult. However, if it was a household with selected adults and one adult had moved, we completed the first adult interview with the nonmover and then contacted the mover.

3.5.3 Students

Students who were selected as adults in an eligible household but who lived away at school were also followed under some conditions. If a student interview was the first interview to be conducted in a household, the interview was done with an appropriate proxy in the sampled household. This was done because we thought that a proxy in the household would generally provide better information about the household income and health insurance than would a

² A few additional mover cases were also encountered, but these overlapped with proxy cases (e.g., when there was no method of contacting the person who moved).

student living away at school. The only time that a student interview was the first interview in a household was when it was the *only* interview in the household.

If the student interview was a second interview, efforts were made to obtain a telephone number or location information for the student from the household. If the household refused to provide a telephone number or location information, Westat requested that the provide student be provided the 800 number. Westat checked with the household a few days later to see if they had been able to give the 800 number to the student. A total of 347 cases were moved to the manual queue because the selected respondent was a student living away at school. Of these, 258 were successfully interviewed.

If the household refused to provide contact information and/or refused to give the 800 number to the student, the interview was conducted with an appropriate proxy who lived in the sampled household. However, if the respondent provided the 800 number to the student but the student did not call Westat, another request was made of the household. After two requests of the household, the interview was conducted with an appropriate proxy who lived in the sampled household.

3.5.4 Missing Spouses

In some households, respondents accidentally forgot to list their spouses or partners as members of the household. If the problem was not realized until after all of the relationship information about household members had been collected, the missing spouse or partner could not be added during the course of the interview. Because major sections of the questionnaire were designed to collect information about the spouse or partner (including the spouse's contribution to family income), we attempted to reinterview respondents when this occurred. We deleted the original data and started the extended interview over again.

Each respondent who was asked to complete an interview a second time was offered \$20. If we had an address for a household, a letter and \$20 were sent to the household in a Federal Express envelope in advance. If we had no address, the \$20 was offered on the telephone as part of the introduction to the study. Interviewers were instructed to attempt to complete the interview with a promise to send the \$20 immediately. However, if a respondent requested a mailout with money before he or she completed the reinterview, a Federal Express letter with \$20 was sent and the household was called two days after the mailing.

The reinterview was essentially the same as the initial interview, with only minor exceptions. The interviewer had to remember to add the missing spouse or partner to the list of household members, and all household information as of the original extended interview date had to be collected.

If a reinterview case was called back and the number was no longer working, the number was redialed again over the next 10 days. If it remained nonworking, we did not keep the original interview data.

If the respondent refused to complete the reinterview, we did not do refusal conversion. We did not keep the original interview data in those cases either.

Reinterviews were attempted in 183 households for 209 interviews. A total of 150 interviews were completed. Interviews that were not completed were given result codes according to the result of the reinterview attempt (e.g., refusal or maximum number of calls was reached)

3.5.5 Special “D Restarts” to Include Household Members Left Off the Household List

There were approximately 110 cases in which a household member (the spouse or any other household member) was left off the household list, and the interview was stopped as soon as the problem was realized in the next section. Because these interviews were not already completed, respondents were not offered the \$20 incentive. A special procedure was used to restart the case in the household list section (section D). When section D was asked the second time, only questions pertaining to the missing person were asked. The missing person’s name was added or corrected on the household list, all questions asked about that person, and then the rest of the interview was conducted.

**Table 3-3.
Special Cases Results**

Item	Number of Interviews Attempted	Number of Interviews Completed	Percentage of Interviews Completed
Proxy and Facilitators Interview	841	543	64.5
Movers	300	108	36.0
Students	347	258	74.4
Missing Spouses	209	150	71.8
Special “D Restarts”	110	NA	NA

3.6 Significant Changes in the Content of the Questionnaire

There were several changes in the questionnaire that occurred during data collection. Changes were made to accommodate CATI specification changes, skip errors, programming issues, and a longer data collection period than was initially anticipated. The major categories of changes were (1) issues related to the definition of poverty; (2) a skip problem in the section on housing and economic hardship (section M); (3) added questions to adjust for administering the extended interview during the summer months; and (4) family definition changes (described in relation to the types of problems that the family definition caused and discussed in section 7.2).

Poverty Definition. Changes related to the poverty definition involved specification changes, changes in the definition, and some skip errors. The major poverty-related changes are described below, along with the date that the problems was fixed in the program. In total, the poverty-related changes affected 463 households. A total of 471 questionnaires were missing at least one item due to a poverty-related change. Most of these cases were the result of changes in specifications rather than skip problems. The primary changes that were made are listed below. Also listed are the number of items or questionnaires affected by each change. Because some changes affected multiple items in one questionnaire, keep in mind that there is considerable overlap in the numbers given below. All items that were missed because of poverty-related changes were updated with -9 codes (which indicate that the answer was not ascertained). For information on the imputation of these variables, see *Data Editing and Imputation*, Report No. 10 in this methodology series.

- **The Interview Path Changed for Those for Whom Poverty Level Was Unknown.** The program did not originally include items intended for persons below poverty (questions

K19, K33, K35, K36/37, L5/L9, and M7/M7A) for those interviews in which no income information was provided. Because we decided that it was better to be conservative in these cases, a change was made such that questions for those below 200 percent of poverty would also be asked of those whose poverty level was unknown (change made on March 4, 1997). Before this change was made, 1,274 items were skipped (with multiple items skipped in each questionnaire).

- **Poverty Level Cutoffs Were Corrected.** Although the poverty line cutoffs (indicating whether the person was above or below poverty) were correct in the question displays in the extended interview (question J66), the poverty flag in the CATI program reflected an earlier set of poverty cutoffs (change made on March 4, 1997). Twenty-three interviews were affected. These changed from “above poverty” to below poverty.
- **Skips Were Changed in Section K (K20/K21, K34A/K34B).** Four questions in section K were inadvertently screening out those above 200 percent of poverty or those whose poverty status was unknown (change made on March 28, 1997). For items K20 and K21, 53 questionnaires were affected. For items K34A and K34B, 107 questionnaires were affected.
- **Skips Were Changed in Section J (J27OV1, J41OV1).** The amount questions were skipped for those who answered “1,” “don’t know,” or “refused” to J27 and/or J41. (Note: The income range question, J66, came up for these cases, so we do know whether the respondents were above or below poverty; change made on April 17, 1997.) For J27, 20 questionnaires were affected. For J41, 88 questionnaires were affected.
- **The Poverty Definition Was Changed.** The poverty definition was changed such that those who were at the poverty cutoff levels were classified as “below poverty.” Previously, these were counted as “above.” The range questions in the extended interview (J66) were also changed such that the “below” category read “below or at” (change made on April 15, 1997). Ninety-seven interviews were affected by this change.

Section M. Another category of change in the extended questionnaire was related to a skip error in the section on housing and economic hardship (section M). Items were erroneously being asked only of persons below 200 percent of poverty (M10, M10A, M10C, and M11). The items should have been asked of all respondents. The change was made on March 4, 1997. This problem affected 2,395 households. Items that were skipped for respondents at or below 200 percent of poverty were given -9 (not ascertained) codes. Imputation of these variables is discussed in *Data Editing and Imputation*, Report No. 10 in this methodology series.

Summer Administration. A third major area of change was that screeners and extended interviews were altered somewhat in order to be appropriate for administration during the summer months. Questions about household membership had to be changed to include children who were temporarily away for the summer. In addition, questions about school and child care had to be changed because many children are out of school or temporarily away from home during the summer. A total of 4,689 households had at least one completed or partially completed interview in which the special summer questions were asked.

Changes were made to the screener, section C about children's schooling, and section G about child care. Changes to the screener were in the interviewer instructions written in brackets on several screens (in effect between June 4 and September 26). The new instructions in the screener indicated that children who were temporarily away for part of the summer should still be included as household members if they usually live in the household. The summer instructions read as follows:

[ALSO INCLUDE CHILDREN WHO USUALLY LIVE THERE BUT ARE TEMPORARILY STAYING WITH RELATIVES, FRIENDS, OR AT A SUMMER PROGRAM.]

Interviewers were also given cards with these instructions on them, so they could refer to them for screens that did not have these words.

New questions in section C (in effect between June 13 and September 8) asked whether the child was attending school or summer school, and, if the child was out of school, what grade the child attended at the end of the last school year. In addition to the questions, one question (C3) had a few extra words added to it so that it would refer to activities during the regular school year. New question-by-question specifications (Q by Qs) were also written for these questions so that interviewers would have explanations available to them on-line, as they did for other questions in the extended interview.

In the summer version of section C, there was one skip error that affected 28 cases. Shortly after data collection with the new questions started, it was found that C03 was not accepting grades over the eighth grade as answers. A change was made on June 17, 1997, to fix the program.

Changes to another section, section G (child care), involved adding new time references that took into account that children are often away during the summer months (these changes were in effect between June 13 and September 26). The new questions were designed to get respondents to focus on the child care they used during the time that the child was home in the last month, even if it was not for the whole month. For example, if the child was only home for two weeks in the last month, we only asked about child care during the two weeks the child was home.

Within the time period in which the child was home, we also distinguished between time spent in and out of school. This was done because parents use different kinds of child care when their children are in school than when they are out of school. Whether we asked about the time in school or out of school depended on how the child spent the majority of the time he/she was home. If the majority of the time at home was spent in school, we asked about school. Other rules about how questions were asked are shown in the CATI specifications for section G (summer version). The exact wording of each question depended on the answers given within the interview.

In addition to these questions, there were also some other child care questions in section G that were changed in terms of time references. Instead of asking about the last month, the questions asked about certain weeks in the last month when the child was home. Because the time reference varied by interview responses, the Q by Qs for these questions were not changed to show the "tailored" time periods. For example, the Q by Q for the question about how many

hours the child was in Head Start indicated that we were interested in the usual number of hours per week during the last month that the child was in Head Start. The question on the screen may have said something like, “In the three weeks that (CHILD) was in school in the last month, how many hours per week was (CHILD) usually cared for in a Head Start Center?” The difference between the time references in the Q by Qs and the actual displays in the questions was explained to interviewers and did not pose a problem.

**Table 3-4.
Significant Changes in the Content of the Questionnaire**

	Questions Affected	Number of Items Affected
Poverty Definition:		
Interview Path Changed for Those for Whom Poverty Level Was Unknown	K19, K33, K35, K36/37 L5/L9, M7/M7A	Before this changed was made, 1274 items were skipped
Poverty Level Cutoffs Were Corrected	J66	23 interviews
Skips Were Changed in Section K	K20/K21 K34A/K34B	53 questionnaires 107 questionnaires
Skips Were Changed in Section J	J27 J41	20 questionnaires 88 questionnaire
Poverty Definition Was Changed	J66	97 interviews
Section M	M10, M10A, M10C, M11	2,395 households
Summer Administration	Special summer questions were added in sections C and G	4,689 households

3.7 Summary

The extended interview for the 1997 NSAF was initially developed in the summer of 1996 by the Urban Institute and Child Trends, with input and some question suggestions made by Westat. The design of the study called for multiple interviews in a household, with specific rules about what type of interview could follow one another and what questions could be omitted in second interviews. The interviews covered a wide range of content areas, including health care, child care, education, employment, income, welfare participation, and the availability of social services.

A series of pretests for the 1997 NSAF was conducted from September 1996 to February 1997 to test the questions and the CATI program. Questions were changed in response to monitoring interviews and feedback from interviewers.

Data collection for the extended interview started February 15. During data collection, most extended interviews were conducted according to plan, but some required special procedures. Guidelines were developed to handle special cases, such as those in which respondents were not physically or mentally capable of answering questions on the telephone, respondents moved, and respondents inadvertently left persons off the household list.

As data collection continued, changes were made to the program and some skip issues were found and changed. Questions were also added for interviews conducted during the summer months.

4. TRAINING

4.1 Overview of Training Plan

Considerable emphasis was placed on training. In order to produce high-quality training, Westat started by developing an outline of key concepts to be covered. The agenda and the development of materials flowed from this starting point. The appearance of all materials was standardized so that all trainers could follow the format, regardless of the author, and deliver a consistent training program across groups.

Training sessions were also organized according to standardized Westat procedures, with a lead-trainer training that served as a dress rehearsal and check on materials before they were used with supervisors and interviewers. Training teams were organized with staff who had distinct responsibilities (e.g., a lead trainer who delivered the training script, a group leader who evaluated trainees, runners who helped trainees during interactives and role plays, etc.) so that training sessions flowed smoothly.

Initial training was provided to all interviewers in general interviewing techniques and the use of the computer system. The interviewers then received project-specific training that focused on the NSAF screener and extended interviews.

Screener training was conducted January 4, 1997, through January 12, 1997, and extended interview training was conducted February 8, 1997, through March 22, 1997. Screener training for NSAF interviewers took 14 hours. Extended interview training for interviewers took 30 hours. All training sessions were held at three sites—Westat's two telephone research center (TRC) sites in Rockville and Frederick, Maryland, and a subcontractor's site in Lebanon, Virginia.

As a final stage in the training process, interviewers conducted practice interviews until they reached the desired level of proficiency. Interviewers who were not proficient enough received coaching sessions and were monitored until proficiency was achieved or until they were released from the study.

After all interviewers started production, they received supplemental training about specific questionnaire issues that were new since training. They also received more training in gaining respondent cooperation. Interviewers were monitored throughout data collection as a method of quality control.

Some interviewers also received training in handling special procedures. These included interviews with proxy respondents and with persons who had refused to participate during an earlier call to the household. These cases were placed in a special queue so that only interviewers who were trained to handle such cases would receive them.

4.2 Development of Training Materials

Prior to training, key members of the study area staff, the TRC operations manager, and senior TRC staff developed training materials. Guided by an outline of all the concepts relevant to the study, a complete set of integrated training materials was produced. These materials included the following:

- **Training Program Agenda.** The agenda identified the format of the sessions (lecture, interactive, dyad role play, etc.), the topics to be covered (overview of questionnaire, particular questionnaire sections, etc.), and the length of time the session was scheduled to take (see exhibit 4-1). This document was used by trainers to see what materials should be used by the lead trainer and the interviewer during each session. An abbreviated agenda was produced for the interviewers that showed the sessions but not the materials for the lead trainer.
- **Interviewer Training Manuals for CATI Interviewing.** Two manuals were created to serve as training tools and a reference source during data collection. The first manual, *The National Survey of America's Families (NSAF) Interviewer Manual, Screener* (Westat, 1997a), included an introduction to the study, contact procedures, and specifications for each question asked in the screener. The second manual, *The National Survey of America's Families (NSAF) Interviewer Manual, Extended Interview* (Westat, 1997b), included specifications for each question asked in the extended interview.
- **Lead Trainer's Manuals.** These manuals, *The National Survey of America's Families (NSAF) Trainer's Manual, Screener* (Westat, 1997c) and *The National Survey of America's Families (NSAF) Trainer's Manual, Extended Interview* (Westat, 1997d), contained all material presented by the lead trainer. They included interactive scripts and exercises that were designed to fully test an interviewer's comprehension of survey materials and procedures.
- **Dyad Role-Play Scripts.** Role plays focused on contact procedures and provided practice on administering the extended interview.

4.3 Organization of Training Sessions and Teams

4.3.1 Training Sessions

For both the screener and the extended interviews, separate training sessions were conducted with lead trainers, supervisors, and interviewers. The lead-trainer training was considered a "dress rehearsal" for subsequent training. Training was intended to (1) familiarize the trainers with the standardized materials used in training; (2) ensure that the scripts were accurate and

complete; (3) determine the time required for each element of training; and (4) serve as a final test of the CATI training account. Modifications to the training materials were made based on the results of this dress rehearsal.

For the screener, an eight-hour training session was held with TRC staff designated as lead trainers on December 18, 1996. For the extended interview, no formal lead-trainer session was conducted because of time constraints, but the scripts were read in front of the lead-trainer group prior to the supervisor sessions to ensure that all points were adequately covered.

After modifications were made to the training materials from lead-trainer training and review, supervisor trainings were held. For the screener, supervisors attended one of the two five-hour training sessions held on January 2, 1997, and January 3, 1997, using the revised standardized training scripts.

Exhibit 4-1. Lead Trainer Agenda

NSAF SCREENER

LEAD TRAINER AGENDA—EXPERIENCED WESTAT INTERVIEWERS

Day	Session	Time	Length	Topic	Lead trainer materials	Transparencies	Interviewer/trainee materials
1	1	9:00–10:00	1 hr.	Introduction/Key Concepts	<ul style="list-style-type: none"> ■ Introductory Script ■ Agenda ■ Manual ■ Letter ■ Key Concepts 	2	<ul style="list-style-type: none"> ■ Agenda ■ Manual ■ Letter ■ Key Concepts
	2	10:00–10:40	40 min.	Demonstration/Commonly Asked Questions	<ul style="list-style-type: none"> ■ Demonstration Script ■ Commonly Asked Questions 		<ul style="list-style-type: none"> ■ Commonly Asked Question
	3	10:40–1:00	2 hrs. 20 min.	Interactive 1: Screener Scenarios	<ul style="list-style-type: none"> ■ Interactive Script 1 		<ul style="list-style-type: none"> ■ Terminal
	4	1:00–1:45	45 min.	Interactive 2: Contact Procedures	<ul style="list-style-type: none"> ■ Interactive Script 2 ■ Answering Machine Introduction 		<ul style="list-style-type: none"> ■ Terminal ■ Answering Machine Introduction
	5	1:45–2:00	15 min.	Exercise on Contact Procedures Home Study on Commonly Asked Questions	<ul style="list-style-type: none"> ■ Exercise Key 		<ul style="list-style-type: none"> ■ Exercise on Contact Procedures
2	6	6:00–7:00	1 hr.	Answering Respondent Questions	<ul style="list-style-type: none"> ■ Answering Respondent Questions Script ■ Exercise Key 		<ul style="list-style-type: none"> ■ Commonly Asked Questions ■ Exercise
	7	7:00–8:00	1 hr.	Role Plays	<ul style="list-style-type: none"> ■ Role Play Explanation 		<ul style="list-style-type: none"> ■ Terminal ■ Role-Play Scenarios
	8	8:00–8:20 8:20–10:00	20 min. 1 hr. 40 min.	<i>BREAK</i> Problem Sheet/Practice Account	<ul style="list-style-type: none"> ■ Problem Sheet Script ■ Log-On Explanation 		<ul style="list-style-type: none"> ■ Terminal ■ Problem Sheet ■ Practice Account Logon
3	9	6:00–7:30	1 hr. 30 min.	Strategies for Gaining Cooperation	<ul style="list-style-type: none"> ■ Strategies for Gaining Cooperation Script ■ Audio Tape 		<ul style="list-style-type: none"> ■ Commonly Asked Questions
	10	7:30–7:50 7:50–10:30	20 min. 2 hr. 40 min.	<i>BREAK</i> Practice Account/Live Interviewing			<ul style="list-style-type: none"> ■ Terminal

For the extended interview, supervisor training sessions were 16 hours long and took place in Maryland on February 5 and 6 and in Lebanon on February 6 and 7. Supervisor training allowed for further comments on the training materials and gave the lead trainers a chance to rehearse their roles and be completely prepared prior to interviewer training. This approach resulted in a training program that ran smoothly, remained on schedule, and strengthened the interviewers' confidence in both the material and the people that trained them. All members of the training teams, as well as shift supervisors, attended the supervisor training or one of the interviewer training sessions prior to their active involvement in the training process.

We began to train interviewers on January 4 for the screener and February 8 for the extended interview. Screener training for NSAF interviewers took 14 hours. Extended interview training for interviewers took 30 hours.

Interviewers attended training in group sessions. Each trainee was given an NSAF interviewer's manual to use as a reference tool, and all training used the on-line CATI system developed for the NSAF.

4.3.2 Training Teams

The training team for each group consisted of a lead trainer, a data display operator, a group leader, and two runners. The roles and responsibilities of the team members are shown below.

Lead Trainers were responsible for the overall presentation and the pace of training. All lead trainers for the NSAF had several years of training experience and were well versed in training techniques and group control. The lead trainers concentrated on delivery of the material, while trainee evaluation was the responsibility of the group leader.

Data Display Operators were responsible for following the lead-trainer script and making entries in the master terminal that displayed the CATI interview on large screens in the front of the training room. The data display operators were familiar with the CATI program and entered responses given by the lead trainer.

Group Leaders were responsible for taking attendance, coordinating trainee evaluations, troubleshooting, and making certain that all materials were available when needed. They were responsible for pairing trainees for role plays and for making sure that each person was sufficiently monitored in role-play situations to evaluate performance. Most importantly, group leaders were responsible for coordinating an evaluation of each trainee. Information from each member of the training team was compiled and used to determine whether a trainee was ready for live interviewing. If not, a remedial training program was implemented or the person was released. Remedial training typically involved more role play. If the additional role play did not result in sufficient performance improvement, the person was released. Once interviewing began, group leaders were responsible for ensuring that each of the trainees was adequately monitored and provided feedback. The role of group leader was filled by shift supervisors with many years of experience working with interviewers.

Runners, as the name implies, moved around the training room making sure each trainee kept up with the script and assisted trainees who made entry errors that put them in an inappropriate place in the interview. Two runners were assigned to each group. Runners were shift supervisors and senior interviewers who had direct experience working with interviewers in one-to-one settings.

Prior to interviewer training, data display operators, group leaders, and runners attended a meeting at which roles and responsibilities of each position were discussed. The training teams' work was coordinated and closely supervised by the operations manager, as well as by the project director and the director of the TRC.

4.4 Stages of Interviewer Training

Interviewers were trained in three stages. The first two stages, General Interviewing Techniques (GIT) and Teltrain (CATI training), are standard for all CATI interviewers, but the last stage was specific to the project.

4.4.1 General Interviewing Techniques

New interviewer participated in a four-hour GIT session, which was supported by Westat and was not charged to the project. In GIT training, interviewers were introduced to Westat and to survey research, shown samples of types of survey questions and recording conventions, and taught basic ways to obtain accurate data through listening and probing. They learned confidentiality procedures and methods for gaining respondent cooperation. The format included a video presentation that was interspersed with exercises, interactive lectures, role plays, a question-and-answer period, and practice exercises. Each interviewer received a manual (*The Westat General Interviewer Training Interviewer's Manual* [Westat, 1997e]) that documented the material presented in the session. This session also allowed staff to identify interviewers whose reading and speaking skills were inappropriate for the study.

4.4.2 CATI Training with Teltrain

Before specific project training was conducted, each trainee participated in a two- to three-hour training session on the use of the CATI system. This session, which used an interactive, computer-assisted training program that was supervised but self-administered, took each participant through the procedures for conducting interviews using CATI. The session instructed interviewers on the use of the computers, all Westat CATI recording functions, and special CATI commands. The script included practice with logging on to the computer and using the keyboard (particularly the keys that control the flow of the CATI interview). This training also served as an opportunity to identify trainees who could not use a keyboard skillfully. Those who could not learn to use a keyboard were released from the NSAF training program.

4.4.3 NSAF Project Training

After interviewers were trained in GIT and the use of the CATI system, they participated in a training session devoted to the specific procedures and the administration of the NSAF CATI questionnaire.

Because of the multiple skills interviewers need, training focused on the techniques designed to cultivate these skills. This involved the active participation of all trainees by simulating the actual conditions of the interview. This approach required trainees to use the same procedures and data collection instruments they used to conduct the survey. This approach is summarized below.

Interactive Lectures. Interactive lectures were used to familiarize interviewers with the questionnaire. They were conducted as mock interviews, in which the trainer acted as the respondent and the interviewers, using the computer to read the question text, asked the questions. In addition, the trainer took time to explain or define concepts pertinent to the NSAF interviews or to ask the interviewer to read a definition or procedure from the interviewer's manual.

The scripts used for interactive training were prepared using the Cheshire Automated Training Scripts (CATS) system. CATS is a series of macros created in MS Word for Windows for study-area and TRC staff to develop scripted training materials. With this program, NSAF training staff created and saved training scripts. Standards of style mean that each training script looks uniform, regardless of the author, and all training groups hear the same information, regardless of which trainer presented the material.

Dyad Role Plays. In dyad role plays, one trainee took the role of interviewer, using the computer, while the other played the respondent, both using a script that was produced using the CATS system. Interviewers reversed roles after the end of each role play. Each interviewer participated in several dyads. Group leaders and other training team members monitored the role plays.

Written Exercises. In addition, written exercises were given to the interviewers during training to reinforce what was learned during the interactive interviewing sessions. These exercises dealt with contact procedures, defining household membership, and gaining respondent cooperation.

For the extended interview, trainers conducted intensive review of the Q by Qs of several sections of the questionnaire. These Q by Qs were used to teach interviewers about such questions as those on health care coverage, employment and earnings, family income, program participation, and industry and occupation. Exercises were included to reinforce concepts presented. Interviewers were given time to complete the exercises independently, and then each question was reviewed by the group as a whole. The lead trainer used an answer key so that all interviewers heard consistent answers across training groups.

Practice Answering Commonly Asked Questions. Commonly asked questions and answers were discussed and reviewed frequently throughout training. In NSAF training, card-stock copies

were given to each interviewer during the training and made available on the interviewing floor. The questions dealt with both general interviewing issues and NSAF project-specific issues.

Practice Account. The final element of training consisted of having interviewers log onto the NSAF practice account and interview respondents using the same instrument that would be used on the production account. The practice account is discussed in more detail in section 4.7.1.

4.5 Schedule and Number of Interviewers Trained

Training was conducted by Westat training staff at Westat’s TRC in Rockville and Frederick, Maryland, and at an interviewing facility in Lebanon, Virginia. The training dates and locations are included in tables 4-1 and 4-2 for the screener and extended interviews, respectively.

**Table 4-1.
Screener Training Dates and Locations, 1997**

Rockville		Frederick		Lebanon	
Group 1	January 4–7	Group 1	January 4–7	Group 1	January 11–12
Group 2	January 5–7	Group 2	January 4–7	Group 2	January 11–12
Group 3	January 5–9	Group 3	January 4–7	Group 3	January 11–12
Group 4	January 10	Group 4	January 5–10		

**Table 4-2.
Extended Interview Training Dates and Locations, 1997**

Rockville		Frederick		Lebanon	
Group 1	February 11–16	Group 1	February 11–16	Group 1	February 8–12
Group 2	February 11–16	Group 2A	February 15–18	Group 2	February 8–12
Group 3	February 11–18	Group 2B	February 15–19	Group 3	February 8–12
Group 4	February 15–19	Group 3	February 11–19	Group 4	March 1–8
Group 5	March 15–22	Group 4	February 15–22		
		Group 5	February 17–23		
		Group 6	March 15–22		

A total of 652 interviewers successfully completed screener training: 444 in Westat’s Maryland facilities and 208 in Lebanon, Virginia. A total of 504 interviewers completed extended interview training: 333 at Westat and 171 in Lebanon.

Bilingual training, completed by 34 Westat interviewers, was conducted on April 19, 1997.

4.6 Training for Special Procedures

Special training sessions were held to teach interviewers how to handle the procedures described in section 3.5. These sessions were conducted with interviewers who had been assigned to work the “manual” queue because TRC staff felt they could handle more complex cases. The CATI scheduler only delivered manual queue cases to these interviewers.

Cases were moved to the manual queue by the CATI program when circumstances warranted a review before interviewing continued. The queue included cases with selected persons who had moved from the sampled household and sampled persons who were students living away at school. Cases were also moved to the manual queue by project staff who were resolving cases in the problem review queues. These problems included cases requiring a proxy interview; problems completing the household verification section of the interview; cases in which the respondent claimed to have already completed the survey, had moved, or should be called at a different telephone number; and cases in which the telephone number was now nonworking, as well as cases that needed special attention by project and programming staff.

When a case was moved to the manual queue, the program printed out a manual sheet from which the trained interviewer would work. The manual sheet included important information about the case that was much more detailed than that available to the interviewer accessing cases from the scheduler. The manual sheet also included a call record upon which results of the attempt were recorded along with any comments from the interviewer who had made the attempt. If necessary, the supervisor also recorded specific instructions on the manual sheet .

Training started for the manual queue on May 17, 1997, with 25 interviewers from Westat’s Frederick facility. Work began immediately after training on certain types of problems. Additional training took place on May 27, 1997, to cover the remainder of problems. On August 5, 1997, five more Frederick interviewers were trained, to allow for attrition.

Training took four to eight hours, depending upon the interviewer’s prior experience. It included a comprehensive discussion of the NSAF interview’s basic concepts: interview types (adult, child, straggler), household membership definitions, family relationships, importance of the screener completion date, the expected order of interviews, and result codes. Interviewers were trained to read and record data on the manual sheet and to read and use a printout that described the family relationships at three points in time: at the pre-screener, at the household verification, and at section D of the interview. Training also included a review of the guidelines designed to help the interviewers decide how to resolve problem cases. Training was also provided in each of the special areas for which procedures had been developed: selected persons who had moved from the household, selected persons who were students living away at school, and selected persons who were unable to complete without the use of a proxy. The remainder of the training session was spent in completion and discussion of a written exercise that focused on the NSAF basic concepts. Trainees also used a CATI role play to practice proxy interviewing.

Another training session was conducted to handle special procedures for respondents who needed to be interviewed in Spanish. In the beginning, one Frederick interviewer was trained to work bilingual cases in the manual queue. Bilingual manual interviewing began on August 5, but

one interviewer was not sufficient. On September 11, 1997, two additional bilingual interviewers from Westat's Rockville location were trained to work manual cases. They traveled to Frederick to work the manual cases, beginning on September 15, 1997.

Training procedures were also developed for conducting proxy interviews for respondents who spoke neither Spanish nor English. On July 2, 1997, approximately 19 bilingual interviewers at Rockville were trained to conduct proxy interviews in those households where the respondent spoke neither English nor Spanish. Although these cases were delivered by the scheduler rather than via manual sheets, the procedures followed to conduct a proxy interview were similar to those used by the manual interviewers. A total of 201 screener and extended interviews were conducted in this category.

On September 4, 1997, 12 of the already trained manual-queue interviewers were given additional training to reinterview or conduct special questionnaire restarts in the D section of the questionnaire with those respondents who had forgotten to include a spouse or partner as a household member in the initial interview.

An average of 27 interviewers worked on the manual queue. The manual-queue work was overseen by one full-time TRC supervisor and one part-time TRC supervisor, with guidance from a project staff member. The supervisors followed specific guidelines in resolving and finalizing manual queue cases.

4.6.1 Refusal Avoidance and Conversion

During the regular project training, all interviewers received instruction in refusal avoidance methods. Further strategies were reviewed at all sites in special refusal avoidance meetings. Included in the effort to improve respondent cooperation were special coaching sessions by supervisors assigned to small groups of interviewers. In these meetings, the emphasis was on the review of good interviewing techniques by direct observation and intervention. In addition, supervisors selected experienced interviewers with higher-than-average cooperation rates in either the screener, the extended interview, or both for refusal conversion activities.

Refusal conversion focuses on attempts to persuade respondents who have previously refused to participate or to complete an interview. Interviewers received special training in recontacting and encouraging participation by those respondents who had originally declined. The refusal conversion training sessions lasted between one to two hours and covered specific conversion strategies. They explored common reasons for refusals, reasons specific to the NSAF, and the importance of addressing respondent concerns with appropriate responses.

These sessions were conducted at all three phone centers, which included the Rockville and Frederick centers in Maryland and the center in Lebanon, Virginia. Refusal avoidance meetings began in March 1997. Conversion sessions began shortly thereafter, and additional groups of interviewers were trained through August 1997. By September, almost all interviewers who remained on the study had received refusal conversion training.

4.7 Interviewer Performance

Interviewer performance was evaluated in several ways: through practice interviews, examination of cooperation rates, and monitoring of skills needed for effective interviewing.

4.7.1 Practice Interviews

In order to maximize performance when contacting NSAF respondents, interviewers were first assigned to the practice account. Because the practice account design was a mirror image of the production account, interviewers were able to gain experience in gaining cooperation and master the skills needed to administer the instrument. The sample of telephone numbers for the practice account was drawn from the same geographic areas as the production account to simulate experiences with households of similar characteristics.

The practice account was available as a training device from the beginning of the study through the first week of May 1997. Interviewers were initially assigned to this account after screener training in early January. After demonstrating an acceptable level of performance, they were assigned to the production account. In mid-February, after household verification and extended training sessions had been completed, interviewers were again assigned to the practice account in order to refine skills in administering those questionnaires before they were moved to the production account.

Prior to beginning interviewing for production, each NSAF trainee worked on the practice account until he or she had achieved a level of proficiency that met the needs of the study.

4.7.2 Criteria to Bring On-Line and Continue Interviewing

For this study, the minimal acceptable cooperation rate on the practice account was established at 55 percent. Interviewers who achieved this cooperation rate were moved to the production account. After interviewers began working on the production account, their work was closely monitored through monitoring and review of various reports.

Interviewers whose performance fell below acceptable levels attended additional coaching sessions with an emphasis on gaining respondent cooperation and answering respondent questions. Approximately 10 percent of all interviewers who completed training fell into this category. The additional coaching sessions required an additional 1.5 to 2 hours per interviewer. Performance was monitored closely by a coaching coordinator to determine whether minimal performance levels had been reached or surpassed.

In addition to meeting minimum cooperation rates, interviewers were monitored by TRC supervisors and training staff to determine whether the following skills were demonstrated: use of a conversational style; reading fluency; ability to answer respondent questions quickly, accurately, and completely; ability to gain respondent cooperation; ability to read screens verbatim; and use of neutral probes. These skills were evaluated through the course of the study.

4.7.3 Supplemental Training

Approximately one week after screener training began, interviewers were given printed materials designed to provide additional information to help them answer respondent questions. Initially, these materials consisted of a broader statement of the purpose of the study and a brief description of the topics covered in the extended instrument. Interviewer memos were also distributed to the staff to clarify and reinforce issues as well as to inform staff of procedural changes. A total of 15 memos were distributed to interviewers.

4.7.4 Gaining Respondent Cooperation

Approximately two weeks after each training session, interviewers began attending sessions designed to maximize respondent cooperation. Two types of training sessions were conducted: a “monitoring” session designed to accommodate a small group of interviewers, and an interactive session with a larger number of interviewers. The small group sessions involved monitoring interviewers identified as highly effective, with discussion of the techniques used to gain and retain cooperation. These sessions were 1.5 to 2 hours long. The larger group sessions reinforced concepts introduced in project training and techniques observed during monitoring sessions, and included discussion and practice addressing specific objections or questions. The large group sessions were also 1.5 to 2 hours long. All interviewers attended both small and large group sessions.

The following techniques were used to identify and reinforce behaviors effective in gaining respondent cooperation:

- The operations manager sent a daily priority list to shift coordinators. It included lists of interviewers by name and/or category (practice, Spanish, etc.) targeted for heavy monitoring because of recent change in status, such as role play to practice; practice to production; special assignment; cooperation rates lower than average; and evaluation for specialized tasks, refusal conversion, and manual queue. The issues that were to be focused on during monitoring were also provided, such as the interviewer’s ability to answer respondent questions/concerns quickly and accurately; read all screens (in particular the screener introduction) at the appropriate pace and tempo for the respondent; read screens verbatim; and probe neutrally and appropriately. For refusal interviewers, the emphasis was on the ability to engage respondents and use appropriate techniques.
- Supervisors provided feedback to interviewers on an individual basis after monitoring sheets had been completed. This included feedback on poise aspects of the interview and suggestions for improving performance.
- Shift coordinators sent daily reports regarding interviewer performance to the operations manager. Reports identified strengths and weaknesses as reported in monitoring sheets. They also provided input on interviewers recommended for special tasks.
- Shift coordinator reports were used in combination with cooperation rates to identify interviewers for refusal conversion and other specialized tasks.

4.7.5 Interviewer Meetings

Meetings were held with the interviewing and supervisory staff to reinforce procedures, review points of emphasis, provide updates on procedures, and inform staff of study progress.

4.8 Summary

The training plan for the NSAF was developed according to standard Westat procedures and included a series of three training programs for interviewers: general interviewer training, training on CATI, and project-specific training. Project-specific training included interactive lectures, role plays, written exercises, and frequent review of answers to questions that respondents commonly ask.

Training for the screener was conducted from January 4 through January 12, 1997, and extended interview training was conducted February 8 through March 22, 1997. Following training, interviewers conducted live practice interviews until they had achieved a desired level of proficiency. After production interviewing started, interviewers received supplemental training about new issues in the questionnaire and methods of gaining respondent cooperation. Interviewers were monitored throughout the course of the study.

5. SCHEDULING AND RELEASE OF WORK

The strategy for scheduling and releasing telephone numbers to interviewers is described in this section. The chapter begins with a discussion of the steps that were taken to prepare the sample for interviewing. The next several sections describe the initial release and follow-up strategies. The chapter ends with a description of the outcome of the calling strategies.

5.1 Processing the Sample of Telephone Numbers Prior to Calling

There were 483,260 telephone numbers selected (see *Sample Design*, Report No. 2 in this methodology series). Of these, approximately 18 percent (86,614) were removed before the numbers were given to interviewers for screening. Nearly 5 percent (22,975) were eliminated because they were listed only in the yellow pages, and 13 percent (63,639) were eliminated by a computer system that dials numbers to eliminate nonworking numbers. This computer can detect the tritone signal for a nonworking number very quickly, usually without an audible ring of any telephone number that is tested.

The remaining 396,646 telephone numbers were sent to a reverse directory service for addresses. From this service, addresses were obtained for 151,501 numbers (38 percent).

5.2 Advance Mailing

An advance mailing was sent to all telephone numbers for which we were able to obtain an address. This mailing included a letter from the Westat project coordinator encouraging the household's participation. Answers to frequently asked questions were printed on the back of the letter. In four states—Florida, New Jersey, Washington, and Colorado—an endorsement letter, signed by the governor, was enclosed with the Westat letter. In Massachusetts, Minnesota, and New York, endorsement letters were signed by senior officials in health departments. During data collection, one of the states requested their letter no longer be enclosed with the package because of the volume of calls they were receiving.

The letters were mailed to coincide as closely as possible with the initial release date of the telephone number. The schedule is shown below.

**Table 5-1.
Mailing Schedule**

Batch Number	Number of Addresses	Approximate Mailing Date
1	47,807	December 23, 1996
2	25,496	January 5, 1997
3	30,373	January 23, 1997
4	26,249	January 24, 1997
5	10,176	April 7, 1997
6	11,400	May 28, 1997

5.3 Answering Machines

Studies indicate that leaving a message on an answering machine seems to increase cooperation rates (Xu et al. 1993). Apparently the message acts as an advance letter in that it legitimizes the study, allows the respondent time to make an informed decision, and distinguishes the “survey telephone call” from telemarketing calls. Because of this, the message below was left the *first time* an answering machine was encountered at a telephone number.

Hello, I’m calling for the National Survey of America’s Families, a research study concerning health care, education, and human services. The study is sponsored by several private foundations and has been endorsed by state governments interested in measuring the impact of government policies on families and children. I’m not asking for money—I’d only like to ask some questions. We will call back and try to reach you in the next few days. Thank you.

Messages were also left whenever an answering machine was encountered after the “strategy” changed (e.g., the case moved into a refusal or language treatment; for the latter, messages were translated into Spanish [see sections 5.7 and 5.8 for a discussion of the treatments]). There were also several special situations in which messages were left. For example, during the manual operation (described in section 5.9) an interviewer might leave a message geared to the circumstances surrounding the call. During the experiments described in *Response Rates and Methods Evaluation* (Report No. 8 in this methodology series), messages were left as part of the experiment. Then, at the end of data collection, messages were left at households of sampled persons telling them of the \$25 offer to complete the extended interview (this is described in section 5.8.2).

5.4 Initial Release

Our initial release strategy was based upon the premise that telephone numbers for which an address was obtained were more likely to be residential. Residential numbers are more likely to be answered in the evening than during the day, and, for this reason, they were first contacted in the evenings after 7:00 p.m. (within a time zone) or on a weekend. Those without addresses were assumed to be mostly businesses, nonworking, and unlisted numbers. Because of this, their release was heavily weighted toward daytime calling, when most of the nonworking and nonresidential numbers would be eliminated on the first call. This daytime release for unlisted residential numbers had the added advantage of allowing interviewers to leave an answering machine message prior to contact. We hoped this would act as an advance letter at those households.

5.5 Time Slice Strategy

If the initial call attempt resulted in “no answer,” a busy signal, or an answering machine, the automatic call scheduler would place the telephone number into time slice queues so that additional calls would be made over several days at several different times of day. The goal here was to find a time when someone would answer the telephone (Brick et al. 1996; Sebold 1988).

The time slices were defined as Saturday, 10:00 a.m. to 6:00 p.m.; Sunday, 2:00 p.m. to 9:00 p.m.; weekdays, 9:00 a.m. to 2:00 p.m., 2:00 p.m. to 6:00 p.m., 6:00 p.m. to 7:30 p.m., 7:30 p.m. to 9:00 p.m., and 6:00 p.m. to 9:00 p.m. If, after seven calls, there was still no answer, the telephone number was temporarily retired.

Those with an answering machine contact in their history were rereleased after a one-week retirement for seven more calls within the time slices. This rerelease protocol happened up to three times, for a total of 28 attempts. After 28 tries the number was permanently retired and assigned the code NM, for no contact except for an answering machine. Less than 1 percent (3,950) of the telephone numbers ended up as NM.

Numbers without an answering machine contact in their history were retired for two weeks, at which point they were rereleased for seven additional calls within the time slices, for a total of 14 attempts. After 14 calls the telephone number was coded a result of NA (for no answer). At the end of the survey, there were 25,299 NAs (5.2 percent of the sampled telephone numbers).

5.6 Maximum Call Limits

When a person answered the telephone, the telephone number was removed from the time slice strategy described above. Once contact was made, all subsequent calls were based upon the respondent’s assessment of the best time to call or it was left to the interviewer’s discretion to suggest the best time. This was generally in terms of an exact appointment or a general “best

time” to call (i.e., day, evening, or weekend). The maximum call counter for these cases for both the screener and the extended interview was set at 50 each. This high limit was set to allow enough calls for two refusal conversion efforts and calls in Spanish. As a result, less than 1 percent of the calls ended as “maximum calls” (MC) at both the screener and extended levels (2,854 and 549, respectively).

5.7 Language Strategy

In households where there was no adult with the English communication skills necessary to complete the screener, or where the selected respondent could not communicate enough to complete the extended, interviewers coded the telephone number as a “language problem.” This category combined two situations: The household might speak a language other than English or the respondent might have a hearing and/or speech problem that hampered communication. These cases went to special “workclasses,” one for non-English problems and one for hearing/speech problems. The case’s “language problem” classification remained marked on the extended interview after it was complete.

A “workclass” defined a “group of work” that a special group of interviewers was trained to handle. Interviewers who were effective at dealing with elderly, infirm, or hard-of-hearing respondents were assigned the hearing and speech problems. If this specialized interviewer was unable to complete the interview, he/she sent the case to interviewers trained to conduct proxy interviews (see section 5.9).

Bilingual interviewers, who were trained to interview in both English and Spanish, worked on the non-English cases. If the bilingual interviewer was unable to conduct the interview in either language, he/she sent the case to interviewers trained to conduct proxy interviews (see section 5.9). Bilingual interviewers received eight more hours of training than traditional interviewers. During this training, the Spanish language version of the questionnaire was practiced, using interactive lectures and dyad role plays as described in chapter 4.

5.8 Refusal Conversion Strategy

When a respondent refused to be interviewed for either the screener or the extended interview, the CATI program asked the interviewer to complete a Non-Interview Report Form (NIRF). The NIRF was designed to collect information to help interviewers convert refusals. It also provided supervisors with sufficient information to determine whether a particular refusal should be refiled. Refusal conversion was not attempted if the respondent used profanity or was otherwise rude or threatening. This happened very rarely.

Information on the NIRF included the following:

- Where the respondent broke off³
- Why the respondent broke off
- What the respondent said that might help a converter anticipate questions or concerns
- The respondent's sex
- Whether the respondent sounded elderly

Refusal conversion was never attempted on the Version 1 screeners. Instead, Version 1 refusals were held until after the Version 2 screener was introduced and interviewing began on the extended interview. Conversion training began in mid-March 1997 and continued through August, as potential converters were identified.

A total of 101,103 households refused the screener. Of these, 52,878 (52 percent) had an address. At the extended level, 11,671 sampled persons initially refused to be interviewed, of whom 5,861 (50 percent) had an address. The refusal treatments for households with addresses were based upon the results of a series of experiments described in *Response Rates and Methods Evaluation* (Report No. 8 in this methodology series), while those without addresses were not subject to special treatment. The strategies for converting both groups are described in the following sections.

5.8.1 Refusal Conversion Strategy for Telephone Numbers without Addresses

Refusal conversion for this group started in March 1997. Refusals at both the screener and extended levels were rereleased a minimum of three weeks after the initial refusal was obtained. Specially trained interviewers then attempted conversion. If they were unsuccessful, the case was held for an additional minimum of three weeks before a second attempt at conversion was made. Refusal converters had to rely upon the information on the NIRF and their interviewing skills in their attempts to convert the household. Refusals with mailing addresses received a special letter and, in some cases, money to aid in the conversion process. These procedures are described below.

5.8.2 Refusal Conversion Strategy for Households with Addresses

Several experiments were conducted to develop a strategy to optimize refusal conversion. These experiments, as described in *Response Rates and Methods Evaluation* (Report No. 8), were conducted in spring 1997, so refusal conversion on this group did not start until June 1997.

³ At the screener level, over 90 percent of all breakoffs took place during the screener introduction screens. At the extended level, over one-half of the breakoffs occurred by the beginning of Section B; 75 percent had occurred by the beginning of Section E. The percentage of breakoffs in Sections F through P varied from 0.1 to 5.33 percent.

Based upon the experimental results, we developed a refusal conversion strategy to optimize the conversion rate with the available funding. The sites were divided into two categories based upon their cooperation rates (complete interviews / complete interviews plus refusals). The higher cooperation rate group included Alabama, Michigan, Minnesota, Washington, Mississippi, Milwaukee County, Wisconsin, Colorado, and the balance of the United States. States in the lower cooperation group were California, Florida, Massachusetts, New Jersey, New York, and Texas.

Screener—First Refusals. In the low cooperation rate group, express mail letters containing \$5 were mailed to respondents. The mailing was timed to arrive on a Friday and the conversion calls began on a Saturday. Most weeks each telephone number had been dialed at least once by the following Monday. In the high cooperation rate group, regular mail was used to send the respondent \$5. Timing here was also crucial, with letters being mailed 10 to 12 days in advance of the numbers' release to the interviewers. The letter to both groups was exactly the same.

Second refusals for states with both low and high cooperation rates were sent another letter to urge their cooperation. This letter was sent by regular mail and contained no money.

Extended Interviews—First Refusals. The letters sent to extended refusers varied slightly by the type of refusal (e.g., type of family [adult, children], concern with confidentiality/privacy, concern with time, and poverty status). This information was obtained from either the NIRF or the screener data. The letters were sent by express mail to all states and contained \$5 if no incentive had been sent at the screener level (the household never refused the screening interview). If a previous incentive had been sent, no money was enclosed.

Extended Interviews—Second Refusals. Second refusal letters at the extended level were sent by express mail. Incentives were enclosed for only those few sampled persons who had not received an incentive for the extended interview.

5.8.3 Special \$25 Promised Incentive

During the last two weeks of data collection, all respondents were promised \$25 to complete the extended interview. This offer was made to households with and without addresses. The number of interviews increased dramatically during the period when this offer was being made. While the offer of the incentive itself likely accounts for most of the increase, part of the increase may be due to an interviewer effect, since interviewers welcomed the use of a new technique in these last weeks of an extensive data collection effort.

The incentive was offered directly to 3,113 respondents and was also mentioned on answering machines to 477 respondents (total of 3,590). Checks were mailed to 1,202 respondents, 1,196 of whom completed interviews.

5.8.4 Results of Conversion Effort

The results of the conversion effort are shown in table 5-2. The cooperation rate is calculated as

$$\frac{\text{complete interviews} + \text{ineligible interviews}}{\text{complete interviews} + \text{ineligible interviews} + \text{all initial refusals}} \quad (5-1)$$

The conversion rate is calculated as

$$\frac{\text{complete interviews} + \text{ineligible interviews}}{\text{complete interviews} + \text{ineligible interviews} + \text{all final refusals}} \quad (5-2)$$

Table 5-2.
Cooperation and Conversion Rates for the Screener and Extended Interview

Initial release	Screeners			Extended		
	Letter Not Sent	Letter Sent	Overall	Letter Not Sent	Letter Sent	Overall
Complete + ineligibles	54,541	73,115	127,656	19,609	22,994	42,603
Refusals	48,225	52,878	101,103	5,861	5,810	11,671
Total	102,766	125,993	228,759	25,470	28,804	54,274
Cooperation rate	0.531	0.580	0.558	0.770	0.798	0.785
All conversions						
Complete + ineligibles	19,014	30,780	49,794	1,852	2,796	4,648
Refusals	29,211	22,098	51,309	4,009	3,014	7,023
Total	48,225	52,878	101,103	5,861	5,810	11,671
Conversion rate	0.394	0.582	0.493	0.316	0.481	0.398

Cooperation and conversions rates were higher whenever a letter was sent, with the differences being greater at the conversion levels. This may reflect a number of factors, including the letters, how the letters were sent, the incentives that were sent along with some letters, and differences between households for whom addresses could and could not be obtained.

5.9 Manual Treatment

Some of the work was so specialized, varied, and demanding it required the use of a cadre of highly skilled, specially trained interviewers. It consisted of problem cases (e.g., missing persons in the roster), sampled persons who had moved since the screener, students sampled at home who were away at school, interviews with proxy respondents, and so on. These situations are described in more detail in Section 3.5. Often these cases had detailed histories that interviewers needed to read and understand in order to conduct the interview appropriately. Once the material had been read and absorbed, an interviewer was able to call up the case “manually” by entering

the identification number into the computer system. Descriptions of the major categories of work in the manual queue follow.

Proxy and Facilitator Interviews. Proxy interviews were conducted when a respondent was unable to complete the interview because of a physical or mental impairment that limited his/her ability to communicate or when he or she was not in the household for one of a few select reasons (e.g., hospitalization). Facilitator interviews were used when the respondent was mentally competent to answer questions but could not respond because of communication problems (e.g., because of hearing/speech problems or because the respondent spoke a language other than English or Spanish).

Proxy and facilitator interviewers tried to find someone else in the household who was appropriate to answer questions for the respondent. Special interviewers were needed because the interviewer had to change words in the questionnaire that referred to the respondent as “you”

For hard-of-hearing respondents, we offered to conduct the interview using TTY/TDD text telephone services. When this equipment was available to a respondent—which was rare—we did not need a proxy.

Movers. Occasionally, a sampled respondent moved between the time of the screening interview and the extended interview. In these situations we followed the mover if his/her telephone number was known. Because some of the questions in the interview were about the household, and in these situations the former household, these cases had to be removed from the general interviewing population so that the questions could be phrased appropriately.

Students Living Away at School. Occasionally, students were sampled from their parents’ home and were away at school. This required tact and finesse on the part of interviewers because the student’s telephone number had to be obtained from parents who were often uncertain about the purpose of the study. Moreover, the information we asked the student about their household referred to the sampled household, not the student’s residence at school. For these reasons, the specially trained manual interviewers contacted students.

Missing Spouse Reinterviews. There were a few completed interviews (183) in which the respondent neglected to include his/her spouse in the household. These interviews were redone by manual interviewers who offered the respondent a special incentive of \$20; 150 respondents were successfully reinterviewed.

Persons Missing from the Roster and Other Problems. There were several problem situations that were so complicated that respondents were recontacted by manual interviewers. Typically, these situations involved households in which it was discovered that someone was missing after the roster (section D) had been administered. These interviews had to be set back to section D to correct the household enumeration and then restarted. This restart (called the “special D restart” in section 3.5.3) was the work of the manual interviewers.

5.10 Switching the Order of Interviews

When there were multiple adult interviews in a household, the first interview that was attempted was normally finalized before attempts were made to complete the second interview in the household. The move from a finalized first interview to a second adult interview was done automatically by the scheduler if neither interview had begun. But if the first adult interview had already started, the scheduler did not switch to the second interview. As the study came to a close, it became apparent that there was a need to attempt the second interview even if the first was not yet finalized. The order of interviews in this type of household was intentionally switched if the first interview had started but had not yet finished and was considered a final refusal or if the maximum call counter had been reached. This closed off the first interview, and it was never released again. The order of interviews was not switched if there was still a chance that the first interview would be completed.

Many cases with multiple interviews ended up being worked manually. Decisions about switching the order of interviews were made on a case-by-case basis. Generally, if a first adult interview was not beyond section E and the respondent was difficult to contact, or if messages indicated that the first respondent had not been providing accurate information, the order of interviews was switched. The first interview data were deleted, and the second respondent in the household became the B1 interview (see section 3 for definitions of interview types). Switches were not made if the interview was beyond section E or if the first respondent was simply hard to reach. Once a first interview was deleted and closed off, it was never released again.

Switches that took place when the first interview was beyond section E were typically made because the first respondent had moved and was not locatable, or because the first interview was a final refusal and there was reason to believe the second respondent would be more cooperative.

For child interviews, the normal procedure was to complete the older child's interview first. In a few instances, a first child interview for which there was no hope of completion was finalized and the data deleted so that we could begin the interview of the younger child as a first child interview. This was typically done because the older child and MKA had moved from the household or the older child's MKA was a final refusal. In no instance was the order of interviews switched from a child interview to an adult interview (called an Option B straggler).

If the decision was *not* to switch the order of interviews, the aid of the second respondent was enlisted in completing the first interview. A money incentive was offered to the second respondent if he/she could help get the first respondent's interview completed and then also complete his/her own interview.

5.11 Delaying Some Interviews for Additional Respondent Mailings

On approximately June 6, 1997, a programming change was implemented to facilitate sending the extended reminder letter after the screener was complete and prior to an attempt to complete the extended interview. This change was meant to gain cooperation from the extended respondent by providing him/her with written information about the study before asking him/her to complete the interview. The mailing consisted of the extended reminder letter, a state support letter (where applicable), the NSAF brochure, and \$5. It was sent by regular mail. The letter was available in English and Spanish.

If the person who completed the screener was also selected as the first extended interview respondent, we assumed that he/she was already cooperative and did not offer the mailout to that person. In those cases, the extended interview immediately followed the screener. However, if the screener respondent had refused to answer the screener question about income or income could not be ascertained, it was assumed that the respondent was less cooperative and the mailout was offered anyway.

Mailouts were also offered in between extended interviews in multiple-interview households. At the completion of an extended interview, when there were others to be attempted, the first respondent was offered a mailout if he/she had not already received one. He/she was then immediately offered a mailout for the next extended respondent as well. This next extended interview was not attempted until the mailout had been received. However, if the first respondent refused the mailout for him/herself, interviewers did not ask if we could mail to the second respondent; interviewers asked to speak to the second respondent and offered the mailout to him/her directly.

The interviews of respondents who agreed to the mailout were held for 10 days before a callback was initiated. This allowed sufficient time for the respondent to receive and read the mailing. Unusual situations in which the respondent wanted the mailing but also wanted to continue with the interview immediately were accommodated as well. The interviewer, with a supervisor's assistance, had the ability to continue the interview without waiting the 10 days.

5.12 Call Attempt Results

As shown in table 5-3, it took an average of 6.3 call attempts, or over 2.5 million telephone calls, to finalize all the numbers that were released to interviewers for screening. The number of attempts varied greatly by final result. Among the cooperating households, 5.16 average call attempts were made, with fewer calls needed among the ineligible than among the eligible households. Many more call attempts were made to nonresponding households, with refusals requiring an average of 14.6 calls. As mentioned in section 5.6, the maximum call counter was set high, so the average "maximum call" case received over 40 calls prior to finalizing. Many calls were also made to telephone numbers whose residential status was uncertain. "No

Answers” received an average of 15 call attempts and “Answering Machines” 29. Nonresidential and nonworking numbers received the fewest call attempts, at just over three.

Table 5-3.
Average Number of Call Attempts per Telephone Number, by Final Result at the Screener Level.

Final Result	Telephone Numbers	Average Number of Calls
Complete/ineligible households	179,281	5.16
Complete and sampled	50,417	6.43
Complete not sampled	57,493	5.06
Ineligible	71,371	4.34
Nonresponding households	44,125	13.60
Refusals	39,395	14.60
Language problems	1,638	15.60
Maximum calls	2,854	41.30
Other nonresponse	238	8.49
Uncertain household status	29,249	17.30
Answering machines	3,950	29.10
No answers	25,299	15.50
Nonhouseholds	143,991	3.30
Nonresidential	49,186	3.60
Nonworking	94,805	3.20
Total	396,646	6.30

5.13 Summary

The 483,260 telephone numbers that were sampled for the survey were processed to eliminate businesses and nonworking numbers. After this, 396,646 numbers remained. In order to increase cooperation rates, an advance mailing was sent to households for which Westat had a mailing address (38 percent of the telephone numbers). Answering machine messages were also left the first time there was no answer (and whenever the treatment changed for a particular case) to legitimize the study and allow respondents time to make an informed decision about participating.

The scheduling and release of work were affected by a variety of factors. For example, numbers thought to be residential because they had a mailing address were first contacted in the evenings, when respondents would most likely be home. Numbers thought to be nonresidential were first called in the daytime to eliminate ineligible cases most quickly.

Cases that were not successfully contacted at the first attempt were placed in different time slices for future calls so that calls could be made over several days at different times of day. Once contact was made, subsequent calls were made based on general or exact appointments with the respondent. A limit was placed on the maximum number of calls that could be made, in order to allow enough calls for refusal conversion efforts and calls in Spanish.

Specialized interviewers were used for different types of cases. For example, some interviewers worked with cases that required bilingual interviewers, others specialized as refusal converters, and others worked in a manual queue that required procedures individualized to specific cases.

In March 1997, refusal conversion started. Strategies varied by whether an address was available for the household, whether the respondent's state of residence had a high or low cooperation rate, and whether it was the first or second refusal at the screener or extended interview level. Techniques involved the use of letters to respondents (both express and regular mail letters) and incentive money. Cooperation and conversion rates were higher whenever a letter was sent. In the last two weeks of data collection, respondents were all offered \$25 on the telephone to complete the extended interview. This also increased the number of interviews obtained.

Other procedures that affected the release of work included switching the order of interviews in multiple-interview households when a first adult interview was not finalized and delaying some interviews for additional respondent mailings in order to gain cooperation. The first technique was used near the end of the study and the second one was used in June, after analyses on cooperation rates indicated that it could be useful.

An average of 6.3 call attempts were made to numbers released to interviewers for screening. The number of attempts varied by final result (e.g., more call attempts were made to nonresponding households).

6. QUALITY CONTROL

Westat's quality control procedures were in place throughout the study. Some of them, such as CATI testing and training, were used prior to the beginning of data collection as preventive quality controls. Others, such as supplemental interviewer training, monitoring, and comment and problem sheet review were used during data collection to respond to issues with interviewers or to make adjustments to the questionnaire. Each quality control method is described briefly below.

6.1 CATI Testing

Quality control procedures started with making sure that the CATI instrument was working properly. The questions and skip patterns were tested as soon as the questionnaire was programmed. This testing included review by project staff, TRC staff (including interviewers), data preparation staff, the statistical staff and programmers, and staff at the Urban Institute. The testing by staff members representing different aspects of the project was done to ensure that the system was working properly from all of these perspectives.

6.2 On-Line Range and Logic Checking

Another method of quality control involved the use of edits in the CATI system. Specifically, on-line range checks were programmed for several sections of the questionnaire to catch unlikely or impossible responses and also to catch errors that might result from typographical errors by interviewers. Each check had defined ranges with minimum and maximum values. For example, there were checks to ensure that a child's reported grade level made sense in terms of his or her age. A message would appear, for instance, if an 8-year-old was reported to be in nursery school (below the minimum value) or the fifth grade (above the maximum value). However, because some 8-year-olds could actually be in those grades, the edit was a "soft-range" check that allowed the interviewer to continue after confirming the response with the respondent.

Some questions had both soft and hard ranges. "Hard-range" checks did not allow the interviewer to continue without entering an answer within the range programmed. For example, one question asked about the amount received in an AFDC/TANF check. The soft range for a monthly amount was \$0 to \$1,250. The hard range was \$0 to \$9,999. An answer above \$1,250 could be entered after confirmation, but an answer of \$10,000 was not allowed.

Other checks were used to check logic. For example, one check did not allow a respondent with multiple jobs to report that the hours worked in all jobs combined were less than or equal to the hours worked in one job.

These edit checks proved very valuable in the 1997 survey. Because of time constraints, only a select few could be programmed. However, many more edits were added for the 1999 survey.

6.3 Training

A good training program is another important aspect of quality control. Westat has found that thorough, intense training yields the best results in the collection of high-quality data. Training was standardized across sessions so that all interviewers received the same information. Supervisors attended the same project-specific training sessions as the interviewers so that they would be well prepared to handle their duties, and were also considered prepared because of their previous experience. Many of our TRC supervisory staff occupy permanent positions at Westat, have worked on many RDD surveys, and are very familiar with the specific questions asked by interviewers and respondents and the common problems that occur.

6.4 Practice Interviews and Supplemental Training

As discussed in chapter 4, interviewers conducted live practice interviews until they reached an adequate level of proficiency to start real production interviews. This practice gave interviewers an opportunity to use the techniques learned in training. Practice interviews also gave TRC staff the opportunity to monitor interviewers and determine their strengths and weaknesses before any problems affected data collection.

Interviewers were also given other types of supplemental training. About one week after screener training began, interviewers received additional information to assist them in answering respondent questions. For example, interviewers were given a broader statement of the purpose of the study and reviewed a brief description of the topics covered in the extended instrument so that they would easily be able to describe the content of the questionnaire to respondents.

In addition, about two weeks after each training session, interviewers began attending sessions designed to maximize respondent cooperation. Following this training, interviewers were monitored further and were given feedback about how well they were doing and what they might do to improve their performance.

6.5 Interviewer Memos

As discussed in chapter 4, interviewer memos were given to the staff to clarify and reinforce issues, as well as to inform staff of procedural changes. A total of 15 memos were distributed to interviewers (see Cycle 1 of the NSAF Interviewer memos).

6.6 Interviewer Meetings

Interviewer meetings were also held as a quality control procedure. The meetings were conducted as needed with the interviewing and supervisory staff to reinforce procedures, review points of emphasis, provide updates on procedures, and inform staff of study progress. These were important to the interviewing process whenever minor changes were made during data collection.

6.7 Interviewer Monitoring

Westat monitored telephone interviewer performance throughout the field period. Monitoring forms for each interviewer were reviewed weekly, and any interviewers who were identified as in need of additional monitoring were monitored more heavily in the following week. Supervisors also performed additional monitoring if there was concern about an interviewer's performance.

Westat's capacity to monitor telephone interviewers is based on our investment in sophisticated equipment and electronic linkages. From a remote location, our supervisors and monitors intercepted calls and silently listened to both the interviewer and the respondent. At the same time, the supervisor could see what appeared on the interviewer's computer screen and the responses that the interviewer entered. Supervisors simultaneously checked on interviewing technique and the interviewer's ability to correctly capture data. Ten percent of the interviewing time was monitored.

Westat supervisors and monitors selected 15-minute intervals of each interviewer's working time to monitor. Interviewers were monitored each shift, but this was not always possible, because resources had to be allocated to other activities (e.g., special coaching sessions with interviewers, meetings). Supervisors performed extra monitoring if there was a concern about an interviewer's performance. An interview monitoring report form was completed each time an interviewer was monitored. Interviewers who continued to have significant problems after receiving feedback or remedial training were released from the study.

During the first weeks following completion of training, the results of monitoring were discussed with each interviewer immediately following the monitoring session. This discussion provided feedback and suggestions to improve the interviewer's techniques to gain cooperation, ask questions, or record responses. Subsequent reports were only reviewed with an interviewer if there was a specific problem, in which case the report was discussed immediately. Supervisors reviewed the monitoring reports throughout the survey period to identify any common problems that might reveal the need for additional interviewer-wide training.

6.8 Triage

Interviewing during all hours of TRC operation was supported by a specially trained "triage" supervisor. The triage supervisor was called whenever a problem interfered with the ability to conduct CATI interviewing. When triage supervisors received a problem report, they diagnosed the problem and called the appropriate personnel. Hardware, software, and project-specific support were always available via home telephones or beeper numbers. The appropriate support personnel were able to respond to problems within minutes of a problem report, regardless of the time.

6.9 Using Comments and Problem Sheets to Find Problems

Interviewers made comments within the CATI questionnaire whenever a response did not fit a category and/or when they perceived a problem with a question. With input from the Urban

Institute, some of these comments were used to update data. Data updates and other data preparation issues are discussed in detail in *Data Editing and Imputation*, Report No. 10 in this methodology series.

Comments were also used as indicators of difficulties with the questionnaire. If there were many comments about a particular item, it might indicate that a question needed to be changed or reinforced with an interviewer memo or meeting.

Problem sheets were also used for quality control. When interviewers or supervisors encountered a problem in conducting or monitoring an interview, they completed a CATI problem sheet. These sheets were reviewed by triage supervisors and forwarded to the appropriate staff member for resolution. Any problems that suggested a change to the questionnaire were discussed with the Urban Institute.

6.10 Programmatic Checks

A number of programmatic checks were also made to the data to find inconsistencies and improbable information. These checks were done to find problems with relationship and gender matches (e.g., male mothers), problems with age coding (e.g., grandparents who were coded as younger than grandchildren), incorrect edits to variables that were dependent on other variables, and other issues. These checks are described in more detail in *Data Editing and Imputation*, Report No. 10 in this methodology series.

6.11 Summary

Westat had multiple quality-control procedures in place both before and after data collection. Prior to the beginning of data collection, CATI testing was conducted to ensure that the system was working properly. In addition, several range and logic checks were programmed into CATI so that erroneous data were not entered.

Training interviewers thoroughly and intensively was another step in quality control. All staff involved in training, monitoring, and interviewing attended training sessions to ensure consistency in understanding the study concepts. Part of training also involved live practice interviews. This gave interviewers the opportunity to use their new skills and staff the chance to monitor interviewers before they started data collection.

After data collection started, supplemental training was provided, along with interviewer meetings to discuss changes and review procedures. Interviewers were also sent memos to clarify issues and inform them about changes. Ongoing interviewer monitoring ensured that interviewers performed well and that issues discussed in supplemental trainings, memos, and meetings were understood. In addition, data preparation staff reviewed comments and problem sheets to determine whether any data or questionnaire changes were needed or whether an interviewer memo was required to clarify an issue. Programmatic checks were also conducted on the data to find inconsistencies or illogical patterns. Finally, Westat's triage system was used to handle any problems that arose with the CATI system.

7. DIFFICULTIES WITH THE NSAF SURVEY

As in any large-scale study, there were some difficulties. One of these involved higher-than-expected rates of change between reported household income in the screener and family income in the extended interview. Another difficulty was the level of response rates for the survey. Both of these issues are discussed in *Sample Design*, Report No. 2, and *Response Rates and Methods Evaluation*, Report No. 8 in this methodology series; they are not included here. Changes in reported poverty status in the interview are also discussed in *Variance Estimation*, Report No. 4.

Two difficulties that are discussed in this chapter are within-household coverage issues and family definition issues and changes.

7.1 Within-Household Coverage

Children and adults were eligible for sampling depending on the household composition. For example, in a household with children, adults who were not the MKA could be sampled as Option B stragglers (adult interviews that follow child interviews) if they did not have children living in the household *and* if the household was sampled for adult interviewing. In unusual circumstances, persons who were 18 to 64 years of age may not have been included in the sampling process, resulting in a small undercoverage bias. One situation in which this might have occurred was in a household where the MKA was the grandmother of the sampled child and the mother was in the household and was an adult. The mother was not eligible to be sampled with the child, because she was not the MKA, nor was she eligible to be sampled as a straggler, because she had a child in the household. Despite the undercoverage issue with such cases, the sampling rules remained the same because of the added complications of introducing different rules. For example, if the mother in the above example had another child, she might have been selected as a MKA if her other child had been selected. If she were made ineligible as a straggler, she would be given two chances of selection. Thus, the sampling rules were not changed because new rules could have created other problems.

7.2 Family Definition

For purposes of the interview, a “family” included all persons living together in a household who were related by blood, adoption, or marriage to the target person (either the selected child or adult). Also included as family was any unmarried partner that the respondent may have had, as well as any children of the unmarried partner. Nonrelatives, such as roommates, were considered part of a separate family and, as such, were not included in questions related to the “family” within the questionnaire.

At the beginning of data collection, we thought this definition was inclusive. However, early in the process, some less-common family configurations were encountered, leading to problems with how extended interview data were collected. For example, if the focal child was a foster child or a stepchild, the CATI program “missed” including step/foster siblings as members of the family. There were also problems with including a person in more than one family, which

occurred whenever the respondent did not know or refused to report a relationship. Programming changes in March and April corrected most of these problems, although many had to be handled in the manual treatment (section 5.9). In the end, only 150 households were affected, although much more time was spent resolving the problems created than on nonfamily problem cases

7.3 Summary

Considering the NSAF's size and complexity and that it was the first time that these data were collected for the study, very few difficulties were encountered. There was a problem of not allowing some straggler adults a chance for selection for the "straggler" interview in a few rare situations, described in section 7.1. During data collection, we found a problem with the definition of a family that required a programming change and extensive work on the approximately 150 interviews that were affected.

There were also discrepancies between the screener and extended interviews in reports of household versus family income and response rate issues, both of which are discussed in other methodology reports in this series.

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