

SAFER • HEALTHIER • PEOPLE™



Monitoring the

Nation's Health

Vital and Health Statistics

Series 1, Number 48

September 2009

Planning and Development of the Continuous National Survey of Family Growth



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Copyright information

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

Suggested citation

Groves RM, Mosher WD, Lepkowski J, Kirgis NG. Planning and development of the continuous National Survey of Family Growth. National Center for Health Statistics. *Vital Health Stat* 1(48). 2009.

For sale by the U.S. Government Printing Office
Superintendent of Documents
Mail Stop: SSOP
Washington, DC 20402-9328
Printed on acid-free paper.

Vital and Health Statistics

Series 1, Number 48

Planning and Development of the Continuous National Survey of Family Growth

Data from the Programs and
Collection Procedures

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
September 2009
DHHS Publication No. (PHS) 2009-1324

National Center for Health Statistics

Edward J. Sondik, Ph.D., *Director*

Jennifer H. Madans, Ph.D., *Acting Co-Deputy Director*

Michael H. Sadagursky, *Acting Co-Deputy Director*

Jennifer H. Madans, Ph.D., *Associate Director for Science*

Jennifer H. Madans, Ph.D., *Acting Associate Director for Planning, Budget, and Legislation*

Michael H. Sadagursky, *Associate Director for Management and Operations*

Lawrence H. Cox, Ph.D., *Associate Director for Research and Methodology*

Linda B. Torian, *Acting Director for Information Technology*

Linda B. Torian, *Acting Director for Information Services*

Linda T. Bilheimer, Ph.D., *Associate Director for Analysis and Epidemiology*

Charles J. Rothwell, M.S., *Director for Vital Statistics*

Jane E. Sisk, Ph.D., *Director for Health Care Statistics*

Jane F. Gentleman, Ph.D., *Director for Health Interview Statistics*

Clifford L. Johnson, M.S.P.H., *Director for Health and Nutrition Examination Surveys*

Division of Vital Statistics

Charles Rothwell, M.S., *Director*

Delton Atkinson, M.P.H., M.P.H., *Deputy Director*

Stephanie J. Ventura, M.A., *Chief, Reproductive Statistics Branch*

Contents

Acknowledgments	v
Abstract	1
Executive Summary	1
Introduction to the National Survey of Family Growth	2
A Brief History of the National Survey of Family Growth	2
The Transition to Continuous Interviewing	4
Preparing for Continuous Interviewing	5
Questionnaire Changes for 2006 and 2007	6
Important Features of the Continuous National Survey of Family Growth	6
Overview of the Sample Design	7
Implementing the Sample in a Responsive Design Context	9
Overview of Sample Weighting	9
Overview of Variance Estimation	9
Development of the Questionnaires and Questionnaire Programs for the Continuous National Survey of Family Growth	10
Computer-Assisted Personal Interviewing (CAPI) and Audio Computer-Assisted Self-Interviewing (ACASI)	
Development	10
Testing	10
Spanish Translation	10
Overview of the National Survey of Family Growth Questionnaire Content	11
The Female Questionnaire	12
The Male Questionnaire	17
How the Data Were Collected	19
Recruitment Protocol	19
Interviewer Training	20
Interviewer Materials	21
Supervision	22
The National Survey of Family Growth Fieldwork and Responsive Design	23
Paradata Used in the National Survey of Family Growth	23
Tracking of Response Propensities in Phase 1	24
Data Collection Quality Control	26
Production Review Interviews	26
Verification	26
Interviewer Comments on Individual Questions	26
Interviewer Documentation on Respondent Reactions to Interview	27
Response Rate Tracking and Respondent Pool Balance	27
Preparing Public-Use Data Files	27
Data File Creation	27
Overview of Item Imputation	27
Structure of the Data Files	28
Data File Documentation	28

Using the National Survey of Family Growth Data from Continuous Interviewing	28
Analyzing Continuous Interviewing Data	29
References	29

Appendixes

Appendix I. Glossary	31
Appendix II. Advance Letters	33
Appendix III. Interviewer Introduction Materials	41
Appendix IV. Brochures	45
Appendix V. Consent/Assent Forms	49
Appendix VI. Other Respondent Materials	52
Appendix VII. Interviewer Training Agenda	55
Appendix VIII. Project Manual Table of Contents	57
Appendix IX. FAQ's for National Survey of Family Growth, Continuous Interviewing	63

Text Figures

1. History of the National Survey of Family Growth	3
2. Principal Staff Involved in the Design and Planning of the Continuous National Survey of Family Growth.	4
3. A Brief Chronology of the Transition from Periodic to Continuous Interviewing in the National Survey of Family Growth.	5
4. Continuous National Survey of Family Growth: Selection of Primary Sampling Units	7
5. Continuous National Survey of Family Growth: Sample Allocation Summary.	8
6. Outline of the Female Questionnaire	13
7. Outline of the Male Questionnaire	15
8. Data Structure for National Survey of Family Growth Paradata	24
9. The National Survey of Family Growth Dashboard for Paradata Indicators	25

Acknowledgments

The continuous National Survey of Family Growth (NSFG, begun in 2006) was conducted by the National Center for Health Statistics (NCHS) with the support and assistance of other organizations and individuals. Interviewing, data processing, and other tasks were carried out by the University of Michigan's Institute for Social Research (ISR), under a contract with NCHS.

The continuous NSFG was jointly planned and funded by the following programs and agencies of the U.S. Department of Health and Human Services:

- The Eunice Kennedy Shriver National Institute for Child Health and Human Development (NICHD), National Institutes of Health
- The Office of Population Affairs
- The Centers for Disease Control and Prevention's National Center for Health Statistics (CDC/NCHS)
- The CDC's Division of HIV/AIDS Prevention (CDC/DHAP)
- The CDC's Division of Sexually Transmitted Disease Prevention (CDC/DSTDP)
- The CDC's Division of Reproductive Health (CDC/DRH)
- The Office of the Assistant Secretary for Planning and Evaluation (OASPE)
- The Children's Bureau of the Administration for Children and Families

NCHS gratefully acknowledges the contributions of these programs and agencies, and all others who assisted in designing and carrying out the NSFG.

This report was prepared under the general direction of Charles J. Rothwell, Director of the Division of Vital Statistics (DVS), and Stephanie J. Ventura, Chief of the Reproductive Statistics Branch, DVS. The authors gratefully acknowledge the assistance

of Anjani Chandra, Ph.D.; Gladys Martinez, Ph.D.; Jo Jones, Ph.D.; Joyce Abma, Ph.D.; and Howard Riddick, Ph.D. for their comments on previous drafts of this report.

This report was edited by Gail V. Johnson, CDC/CCHIS/NCHM/Division of Creative Services, Writer-Editor Services Branch and typeset by Zung T. Le, CDC/CCHIS/NCHM/Division of Creative Services, Graphic Services Branch. Graphics were produced by Odell Eldridge, CDC/CCHIS/NCHM/Division of Creative Services, Graphic Services Branch, NOVA contractor.

Objectives

This report describes how the continuous National Survey of Family Growth (NSFG) (begun in 2006) was designed, planned, and implemented. The NSFG is a continuous national survey of men and women 15–44 years of age designed to provide national estimates of factors affecting pregnancy and birth rates; men's and women's health; and parenting.

Methods

The survey used in-person, face-to-face interviews conducted by trained female interviewers. One person per household was interviewed from a national area probability sample. The data collection used computer-assisted personal interviewing (CAPI). Separate questionnaires were used for male and female respondents. The last section of the questionnaires used a self-administered technique called audio computer-assisted self-interviewing or ACASI. Each data collection period lasted 12 weeks—10 weeks for “Phase 1,” the main data collection protocol, and 2 weeks for “Phase 2,” an intensive attempt to locate and interview nonrespondents.

Results

Each year, about 5,000 persons were interviewed in about 33 areas, called primary sampling units (PSUs). Over a 4-year period, 110 PSUs will be used. This report gives an overview of the procedures used in the conduct of the continuous NSFG. A later report will describe response rates and other results of the data collection, but the early fieldwork has gone well.

Keywords: survey methodology • continuous interviewing • responsive design • paradata

Planning and Development of the Continuous National Survey of Family Growth

By Robert M. Groves, Ph.D., Institute for Social Research, University of Michigan; William D. Mosher, Ph.D., Division of Vital Statistics, National Center for Health Statistics; James M. Lepkowski, Ph.D., and Nicole G. Kirgis, Institute for Social Research, University of Michigan

Executive Summary

This report describes the design and planning work for the transition to continuous interviewing in the National Survey of Family Growth (NSFG), and the procedures used in fieldwork operations. A subsequent report will describe response rates and other results of the data collection.

The substantive content of the continuous NSFG is very similar to the most recent periodic NSFG (conducted in 2002). However, the methodology and management of the continuous survey is a significant departure from the previous periodic survey methodology. So this initial report describes how the survey was planned, what its objectives were, and the overall concepts and procedures for carrying out and managing the survey fieldwork. This report is being released before the public-use data file so that researchers will have the necessary background to understand the data when the data file is released. After each data file is released from this new design, a new report will include specific updates, including response rates and further details of the data collection results. In this way, users of the data will have more of the information they need in a timelier manner.

The information in this report should be useful to at least two types of readers. First, researchers who wish to use the NSFG public-use data files may want to know more about how the

NSFG was actually conducted, and why, and how its conduct may affect their plans for analyses of the data. Second, the information presented here may also be useful to those interested in survey methodology, and whose surveys might benefit from the approaches used in the continuous NSFG. Recognizing that the report may be read by persons with varying backgrounds, [Appendix I](#) defines a number of technical terms used in this report.

The report begins with a brief history of the NSFG as a periodic survey conducted six times between 1973 and 2002. The report also explains the limitations of the periodic design that was used during those years, with fieldwork carried out every 6 to 7 years in more than 100 areas all at once. The new continuous design was meant to adapt to a new, and less favorable, environment for in-person household surveys. The central goal of the NSFG design remained the same: interviewing a large, nationally representative sample of men and women 15–44 years of age, in person, in English and Spanish. The continuous design attempts to attain that goal with greater cost-efficiency and greater control over sample size, data quality, and cost through the use of a more efficient sample design, and extensive use of paradata to make real-time management of interviewer effort possible. Thus, while the content and substantive goals of the continuous NSFG remained similar to the previous periodic cycles of the NSFG, the way

those goals were attained changed markedly with the new design.

The sample design for the continuous NSFG was to divide the national sample used in the 2002 NSFG into four annual subsamples of about 33 primary sampling units (PSUs) each year, with new PSUs included each year. This greater concentration of the sample at a given time allowed the NSFG to have a smaller field staff with a simpler and more cost-effective management structure than the old periodic design.

The next section of the report describes how the questionnaire programs were tested and how they were translated into Spanish. Then the content of the male and female questionnaires is described and the uses of the information are explained. In this section, it is shown that the male and female questionnaires were organized somewhat differently, and that their content was similar, but some types of information (for example, recent contraceptive use) were collected in somewhat more detail for women than for men.

This is followed by an account of how the data were collected: after PSUs were selected and segments (neighborhoods) randomly selected from PSUs, households in those neighborhoods were listed, randomly selected, and screened to see if there were any men or women 15–44 years of age living there. If so, one person 15–44 years of age was selected for the sample and asked to complete the interview. Adults were asked for signed consent. For minors (15–17 years of age) years of age, parental consent was obtained first and then the minor’s signed assent was requested before they completed the interview.

The materials used in NSFG fieldwork—advance letters, brochures, consent forms, and the Life History Calendar, among others—are described in the report and shown in [Appendices II–VI](#), while materials used for interviewer training are shown in [Appendices VII–VIII](#).

Briefly, interviewer training consisted of an in-home portion that included reading the NSFG Interviewer

Manual and reviewing an in-home study module provided on a DVD, followed by an in-class training session at the contractor’s headquarters. The in-class portion consisted of 5 full days, primarily devoted to practice with the male and female questionnaires. New interviewers and bilingual Spanish interviewers were trained for an additional day.

Quality control and preparation of the public-use data files are described next, including how the high-priority analysis variables (“recodes”) are prepared and imputed. Finally, the importance of using the correct weights (weights for the time period during which the data were collected) in analysis is described.

A forthcoming companion report describes the sample design, weighting, imputation, and variance estimation of the continuous NSFG in more detail.

Introduction to the National Survey of Family Growth

The continuous NSFG began interviewing around July 1, 2006. At this writing, it is yielding about 5,000 in-person interviews each year of women and men aged 15–44 years of age in the household population of the United States. The interviews are done in person in the homes of respondents by professional female interviewers using laptop computers. Interviewing is ongoing for 48 weeks each year. A sample has been released four times per year. Each year interviewing has been conducted in about 33 areas, with a rotation of 25 new areas each year.

The survey produces national estimates of characteristics relating to:

- Trends and differentials in birth and pregnancy rates
- Determinants of birth and pregnancy rates, including sexual activity, contraceptive use, infertility, and sterilization
- Marriage, divorce, and cohabitation
- Adoption and factors related to the demand for adopted children

- Use of medical services for birth control, infertility, and selected health screening
- Behavior related to the risk of HIV and other sexually transmitted diseases
- Men’s roles in raising and supporting their children
- Men’s and women’s attitudes about marriage, children, and families

Public-use data files will be released periodically. Each data release will be accompanied by more specific information about the results of the data collection included in that release. A subsequent NCHS report will include results of the data collection. This report gives an overview of how the continuous NSFG was designed, planned, and managed.

A Brief History of the National Survey of Family Growth

The NSFG was established at the National Center for Health Statistics (NCHS) in 1971. Cycle 1 was conducted in 1973. Before then, smaller national surveys of married women were conducted by private organizations in 1955 and 1960 (1,2). In 1965 and 1970, they were conducted by university researchers with federal funding (3–5).

As shown in [Figure 1](#), the NSFG was conducted six times between 1973 and 2002 by NCHS. Picking up where previous studies left off, the NSFG continued making improvements in the national measurement of fertility. A “cycle” consisted of several years of effort, including planning, pretest, fieldwork, data processing, file preparation, and documentation for a single survey, but the year given is the year the interviewing (or most of the interviewing) was done. In each cycle, a large number of interviewers were hired and the interviewing was done in 12 months or less.

Cycle 1 interviewing was conducted in 1973, and based on interviews of 9,797 women 15–44 years of age, the largest sample at that time for a U.S.

Cycle	Year	Survey contractor	Scope or population covered	Number of interviews	Source of sample	Over-samples	Average length in minutes	Incentive payment
1	1973	NORC	Ever-married women 15–44	9,797	Independent 101 PSUs	Black women	60	No
2	1976	Westat	Ever-married women 15–44	8,611	Independent 79 PSUs	Black women	60	No
3	1982	Westat	All women 15–44	7,969	Independent 79 PSUs	Black women teens	60	No
4	1988	Westat	All women 15–44	8,450	NHIS 156 PSUs	Black women	70	No
5	1995	RTI	All women 15–44	10,847	NHIS 198 PSUs	Black women Hispanic women	100	\$20
6	2002	University of Michigan ISR	Men 15–44 Women 15–44	12,571	Independent 121 PSUs	Blacks Hispanics teens	Men=60 Women=85	\$40
Continuous	2006–	University of Michigan ISR	Men 15–44 Women 15–44	5,000 per year	Independent 110 PSUs in 4 years	Blacks Hispanics teens	Men=60 Women=80	\$40

NOTE: PSU is primary sampling unit. NHIS is National Health Interview Survey.

Figure 1. History of the National Survey of Family Growth

national fertility survey. Cycle 2 was conducted in 1976, with 8,611 women. Cycles 1 and 2 were restricted to women who were currently or formerly married or never-married mothers; never-married women who had not had children were excluded. Cycles 1 and 2 focused primarily on a pregnancy history, contraceptive use, birth intentions, marriage histories, and a variety of social and economic characteristics (6).

NSFG Cycle 3 in 1982 included interviews with 7,969 women. The sampling frame was expanded to include all women 15–44 years of age regardless of marital status, making it possible to study the sexual activity, contraceptive use, and use of family planning services of never-married women and teenagers in addition to the populations covered by Cycles 1 and 2 (7).

NSFG Cycle 4, fielded in 1988, included interviews with 8,450 women 15–44 years of age. New questions were introduced on cohabitation, adoption, and sexually transmitted diseases (STDs). The new questions included items covering respondents' knowledge

of Chlamydia, genital herpes, and AIDS-related knowledge and behavior (8).

Cycle 5 of the NSFG was fielded in 1995 and included interviews with 10,847 women 15–44 years of age. Several changes were introduced in the 1995 NSFG (8–10) to increase the usefulness of the data. The survey was converted from paper and pencil interviewing to computer-assisted personal interviewing (CAPI) in an effort to improve the consistency and quality of the data. Several event histories were introduced: an education history, a work history, and a cohabitation history, to help understand their associations with the pregnancy, marriage, and contraception histories that the NSFG has always collected. A Life History Calendar was added to help organize all the event history information. A file of contextual data was created and made available through the NCHS Research Data Center, allowing researchers to examine the ways in which characteristics of the place of residence—census tract, county, or state—influence behaviors (11). Another innovation in the 1995 NSFG

was audio computer-assisted self-interviewing (ACASI), in which respondents used laptop computers to hear and read the most sensitive questions and enter answers by themselves.

Cycle 6 of the NSFG, which was conducted in 2002, introduced another major innovation. An independent national sample of males 15–44 years of age was added to the sample, with a new questionnaire specially designed for males. The 2002 survey was based on 12,571 interviews—7,643 with females and 4,928 with males 15–44 years of age—the largest NSFG sample ever interviewed. The content of the ACASI section of the NSFG was also expanded significantly in 2002 to collect data on behaviors related to the risk of HIV and other STDs. Further, changes in some question series were informed by a set of white papers commissioned between the 1995 and 2002 surveys, as well as a large pilot study conducted in 2001. Those results are presented and described in the Series 1 report for Cycle 6 (12); also available from: http://www.cdc.gov/nchs/data/series/sr_01/sr01_042.pdf.

The Transition to Continuous Interviewing

The history described previously illustrates that the first six NSFG data sets were produced with large one-time data collection efforts. In the late 1990s large shifts in the reactions of the household population to survey requests were experienced by many surveys in the United States and Europe (13). These shifts were evident in almost all developed countries of the world, and the United States did not escape the trend. It was becoming increasingly difficult to predict how many interviewer hours of work would be required to contact and screen a sufficient number of eligible households and then obtain a given number of interviews with those households. It was also unclear how large a sample was needed, and how many interviewers were required, to complete the task.

The continuous interviewing design was motivated by increasing uncertainty in the performance of complex face-to-face surveys in the United States. These uncertainties arise because of unknown eligibility rates in samples of U.S. addresses, unknown contact and cooperation rates, and various diseconomies of scale in the staffing organization of large, one-time field effort designs. An officer of the American Association for Public Opinion Research observed in 2003 that:

“For a handful of years, it has seemed to all of us in survey research that response rates pose a substantial challenge to our work. A series of factors have made it more difficult to contact potential respondents, driving up costs. During the same time period, respondents’ willingness to participate has declined slightly. Taken together, these shifts have led to lower response rates than those of twenty years ago” (14).

National Survey of Family Growth staff (NSFG), National Center for Health Statistics
(In alphabetical order, former staff marked with an *)

Joyce C. Abma, Ph.D.	Gladys Martinez, Ph.D.
Anjani Chandra, Ph.D.	*Brittany McGill, M.P.P.
*Paula Goodwin, Ph.D.	William D. Mosher, Ph.D.
Jo Jones, Ph.D.	

Chief, Reproductive Statistics Branch:
Stephanie J. Ventura, M.A.

Design Statistician:
Karen E. Davis, M.A.

Office of Population Affairs:
Eugenia Eckard, M.A.

National Institute for Child Health and Human Development (NICHD)
Christine Bachrach, Ph.D. and Rosalind King, Ph.D.

U.S. Department of Health and Human Services, Children’s Bureau, Administration for Children and Families
Penelope Maza, Ph.D.

U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation
Linda Mellgren, M.P.A.

Centers for Disease Control and Prevention, Division of HIV/AIDS Prevention, Atlanta, GA
Amy Lansky, Ph.D., and Elizabeth Di Nenno, Ph.D.

Centers for Disease Control and Prevention, Division of STD Prevention, Atlanta, GA
Nicole Liddon, Ph.D., and Jami Leichter, Ph.D.

Principal University of Michigan staff involved in NSFG design and planning

William G. Axinn, Ph.D.	James M. Lepkowski, Ph.D.
Peter Granda, Ph.D.	Patricia Maher
Robert M. Groves, Ph.D.	Shonda Kruger Ndiaye
Nicole Kirgis	

Figure 2. Principal staff involved in the design and planning of the continuous National Survey of Family Growth, 2001–2007

Further, Cycles 1–6 of NSFG required the redevelopment of survey questionnaires, reprogramming of computer-assisted personal interviewing software, recruiting, hiring, and training large numbers of interviewers, hiring layers of field management oversight, and large numbers of central office staff—all required to do all of the fieldwork in 12 months or less.

Thus, in the late 1990s the performance of large-scale survey efforts was becoming less predictable. The result was that cost inefficiencies and a loss of management control of the survey design were increasingly likely. Given the limited funding available for the NSFG, a new design was needed for the new environment—a design that provided much greater control over the costs and results of the survey fieldwork. Work began on a proposal for a reform of NSFG, to be called the “continuous NSFG.”

The launch of the continuous NSFG was a complex project that required the efforts of many professionals across several disciplines and organizations. Some of the principal staff who were involved in the design and planning of the launch of the continuous NSFG are listed in Figure 2. The principal events are listed in chronological order in Figure 3.

In late 2000 and early 2001, the NSFG’s funding agency representatives held a series of meetings to consider the future of the survey and the most advantageous ways to make it more useful. Part of those deliberations was a draft memorandum by the ISR’s NSFG Project Director on the outlines of an affordable and cost-effective continuous interviewing plan. The NSFG’s co-sponsors concluded that the content of the survey was now generally satisfactory, particularly given the addition of men to the sample, and the expansion of the content of Audio CASI

March 19, 2004	NSFG funding agencies approve continuous interviewing.
Fall 2004	Transition teams formed at ISR.
Summer–Fall 2005	OMB and IRB clearance materials are drafted.
Fall 2005	Consultations with NSFG collaborating agencies on questionnaire changes for continuous interviewing.
January 2006	National Center for Health Statistics IRB approval is received.
April 2006	OMB clearance is received.
January–May 2006	Questionnaire programs are programmed and tested.
March–June 2006	Training program and materials developed and reviewed.
June 2006	Forty-one interviewers and other staff are trained in Ann Arbor, MI.
July 1, 2006–June 2007	Year 1 of interviewing.
Fall 2006	Consultations with NSFG collaborating agencies on questionnaire changes for year 2 of interviewing.
January–May 2006	Questionnaire programs are programmed and tested.
March 2007	IRB approval of changes for year 2 is received.
April 2007	OMB approval for changes in year 2 is received.
July 2007–June 2008	Year 2 of interviewing.
July 2008–June 2009	Year 3 of interviewing.
July 2009–2010	Year 4 of interviewing—full sample design (110 PSUs) complete in 2010.

NOTE: NSFG = National Survey of Family Growth; ISR = Institute for Social Research, University of Michigan; OMB = Office of Management and Budget; IRB = Institutional Review Board; and PSU= primary sampling unit.

Figure 3. A brief chronology of the transition from periodic to continuous interviewing in the National Survey of Family Growth

in the 2002 NSFG. The principal way in which the survey could be made more useful, they concluded, was to collect more interviews more often and release the results more frequently.

A series of discussions and studies was conducted in 2003 through early 2004, using the experience of the 2002 NSFG and additional research. In that research, a continuous design was compared with the design of the 2002 NSFG. At that series of meetings, the NSFG staff and contractor presented research comparing the continuous design with a design like that used in 2002 (Cycle 6). The continuous design had several features that suggested it should be more cost-efficient:

1. The sample design would be a stratified clustered design allocated to optimize the workload of interviewers (in order to control costs of data collection).
2. The questionnaire would be relatively fixed, with a small number of changes introduced once a year.

3. Interviewing would be continuous over time, amortizing the costs of hiring and training over a longer period of time, and the benefits of an increasingly experienced field staff.
4. The number of primary areas in the sample design would be relatively small at any one time period, to permit a greatly simplified (and more cost-efficient) organization to manage the data collection.
5. The primary areas (PSU's) would rotate over years, assembling over time a more and more precise sample for national estimation.
6. Production data would be processed each day, and post-collection editing would be done continuously every day. This would allow data sets to be released in a more timely fashion.
7. Increased amounts of administrative data ("paradata") would be monitored daily during data collection and active interventions would be guided by those data in order to react

to unanticipated changes in the U.S. public's reaction to the survey request over time.

After much discussion, the agencies funding the NSFG agreed in March 2004 that the continuous interviewing design appeared to be valid and that continuous interviewing should be implemented.

Preparing for Continuous Interviewing

In 2004 and 2005, the NSFG teams at NCHS and ISR began to implement the new continuous design. This implementation process considered five types of issues:

1. Programming and data processing, including examining available hardware and software for interviewing, data processing, and data file documentation. One innovation here was the use of tablet computers that could collect electronic signatures, which eliminated the need to mail and store paper consent forms.
2. Administrative systems, including improvements to the software systems for collecting and analyzing data on fieldwork.
3. Fieldwork and sampling, including an assessment of commercial address lists as a base frame for sampled blocks; defining interviewer workloads to optimize production; revising training procedures to use in-class time more efficiently; and revising the in-home study module and including the material on DVD.
4. Preparing materials for the Office of Management and Budget (OMB) clearance of the survey and for the IRB review. These materials were prepared in summer and fall 2005 and reviewed. NCHS IRB approval was received on January 27, 2006. OMB approval was received on April 14, 2006.
5. Changes in the questionnaires for continuous interviewing, including improvements in specifications and substantive questionnaire

improvements. ISR and NCHS suggested technical improvements. NCHS discussed substantive improvements internally and with collaborating agency representatives. These changes are described in the following text.

Questionnaire Changes for 2006 and 2007

Changes for 2006

It was decided that there would not be any major revisions in the content of the questionnaires between the 2002 NSFG and the start of continuous interviewing in 2006. Nevertheless, it was not desirable to use the 2002 questionnaires as they were. Some moderate revisions were deemed desirable and feasible for 2006. After considerable in-depth analysis of the Cycle 6 (2002) results, and discussion of needed upgrades, the questionnaire revisions between 2002 and 2006 were of six main types:

1. Fixing errors or gaps in the specifications or the program—Some of these stemmed from a lack of consistent specifications for the routing of “Don’t Know” and “Refused” answers, which are not common in the NSFG, but nonetheless can cause missing and apparently inconsistent answers for some respondents. Careful attention was paid to ensure that routing for these responses was fully specified. When necessary, improvements were also made in the wording of “fills” within a question (for example, specifying the name of a baby or partner to ensure that the respondent understood the question correctly).
2. Simplifying or restructuring some sections that became too complex to program and test—These sections were simplified enough so that their specifications and programs could be verified.
3. Improving edit checks—Edit checks are checks for logical consistency that are built into the interview. In

the 2002 NSFG, not all were fully scripted for the interviewer. Writing the words for the interviewer ensured that the edits were administered more consistently.

4. Improving comparability for males and females—Some changes were made to make some important questions more comparable for males and females than they had been in 2002.
5. Updating—When necessary, questions were updated—for example, to include contraceptive methods introduced in the United States since 2002, and new HIV testing techniques.
6. Coding improvements—Using interviewer comments, consistency checking, and other information, new or additional code categories were added to some questions. Other questions that had “Other” codes in Cycle 6 were changed to “Other (specify)” codes so that the meaning of the “Other” responses could be ascertained.

Changes for 2007 (“Year 2,” June 2007–2008)

The themes of the changes made in the questionnaires in 2007 were the same as in 2006—fixing errors or gaps, simplifying, improving edit checks, improving male-female comparability, updating, and coding improvements—but the number and scope of the changes were far less because most of those deemed necessary had been made in 2006. Nonetheless, a few technical fixes were made based on experience gained in the first 6–9 months of interviewing. In addition, a small number of substantive improvements were made (amounting to about 2 minutes of interview time for males and females), based on examination of the data, and suggestions made by the NSFG’s collaborating agencies and by researchers during the NSFG Research Conference in October 2006. These revisions were submitted to the NCHS IRB and to OMB, and approved in early 2007.

Important Features of the Continuous National Survey of Family Growth

Pretest

Elaborate pretests, similar to pilot studies, were conducted to prepare for the 1995 and 2002 NSFG surveys. The Cycle 5 pretest was conducted in late 1993; 500 women were interviewed. The Cycle 6 pretest was conducted in 2001 and yielded 615 completed interviews with men and women 15–44 years of age. These pretests tested a number of innovations, and the questionnaires and procedures were revised significantly after them (12,15,16).

The continuous NSFG was different, however, because the volume of questionnaire change was much less than for the 1995 and 2002 surveys. In effect, the 2002 survey was a kind of pretest for the continuous NSFG, because the experience of the 2002 NSFG was used as the most important input into the changes for 2006. In addition, the first 2 months of interviewing in 2006 were designated as the pretest, but the intent was that, if successful, the pretest interviews would be included in the dataset. The test was successful, and the cases from the first 8 weeks of interviewing were included in the main data set.

Reduced scale

The 2002 NSFG had utilized about 260 interviewers over a field period of about 12 months. Quality and cost control with large sets of interviewers is difficult. Interviewer productivity is reduced and survey costs are increased by the inevitable learning curves that new interviewers experience in the first months of work. In contrast, the current continuous NSFG uses about 40 interviewers in any given year because the sample is divided into four annual replicates. This smaller group of interviewers works consistently over the entire year, with workloads designed to maximize their productivity. This design allows the average interviewer to produce considerably more interviews

per interviewer than in the 2002 survey, which increases efficiency and reduces the costs of training and recruiting.

Active management of the fieldwork

One of the most important innovations in the NSFG in 2002 and 2006 was the active management of the fieldwork using “Responsive Design” concepts (16–18). This is discussed in more detail later in this report, but here it is sufficient to note that this active management of the fieldwork helps to prevent cost over-runs, control costs, and ration interviewer labor so that interviewers’ effort is used with maximum effectiveness.

Overview of the Sample Design

A total of approximately 5,000 women and men were being interviewed annually from a sample selected using probability sampling methods in the early stages of continuous interviewing for the NSFG. A national sample of 110 Primary Sampling Units (PSUs) was selected at the beginning of data collection around July 1, 2006 (Figure 4). PSUs are metropolitan areas, counties, or groups of adjacent counties.

This national sample was divided into *national quarter samples* of 33 PSUs that are in turn used in each of four successive years (Figure 5).

These national quarter sample PSUs consist of eight large metropolitan areas in the United States (which remain in the sample each year) and 25 smaller metropolitan and nonmetropolitan PSUs that change, or rotate, each year. The 110 PSUs in the national sample are located in most states and include the largest metropolitan areas in the United States.

From each PSU, secondary units, called segments, were selected. Segments are, roughly, neighborhoods or groups of adjacent blocks. In each selected segment, one of two procedures was used to enumerate housing units in the area. In the “update” segments, addresses were obtained from a commercial source and visited by interviewers to check and correct the

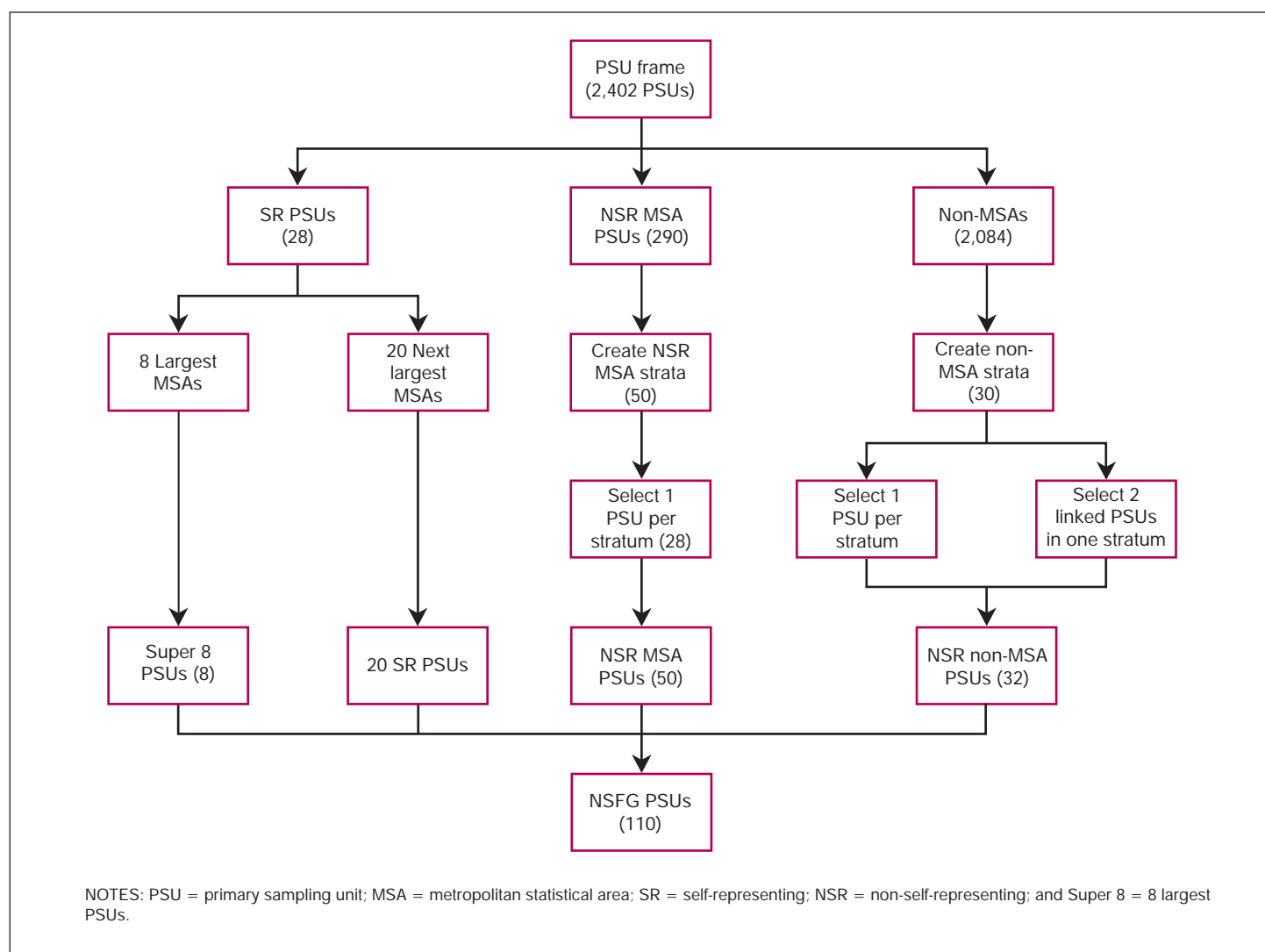


Figure 4. Continuous National Survey of Family Growth: Selection of Primary Sampling Units

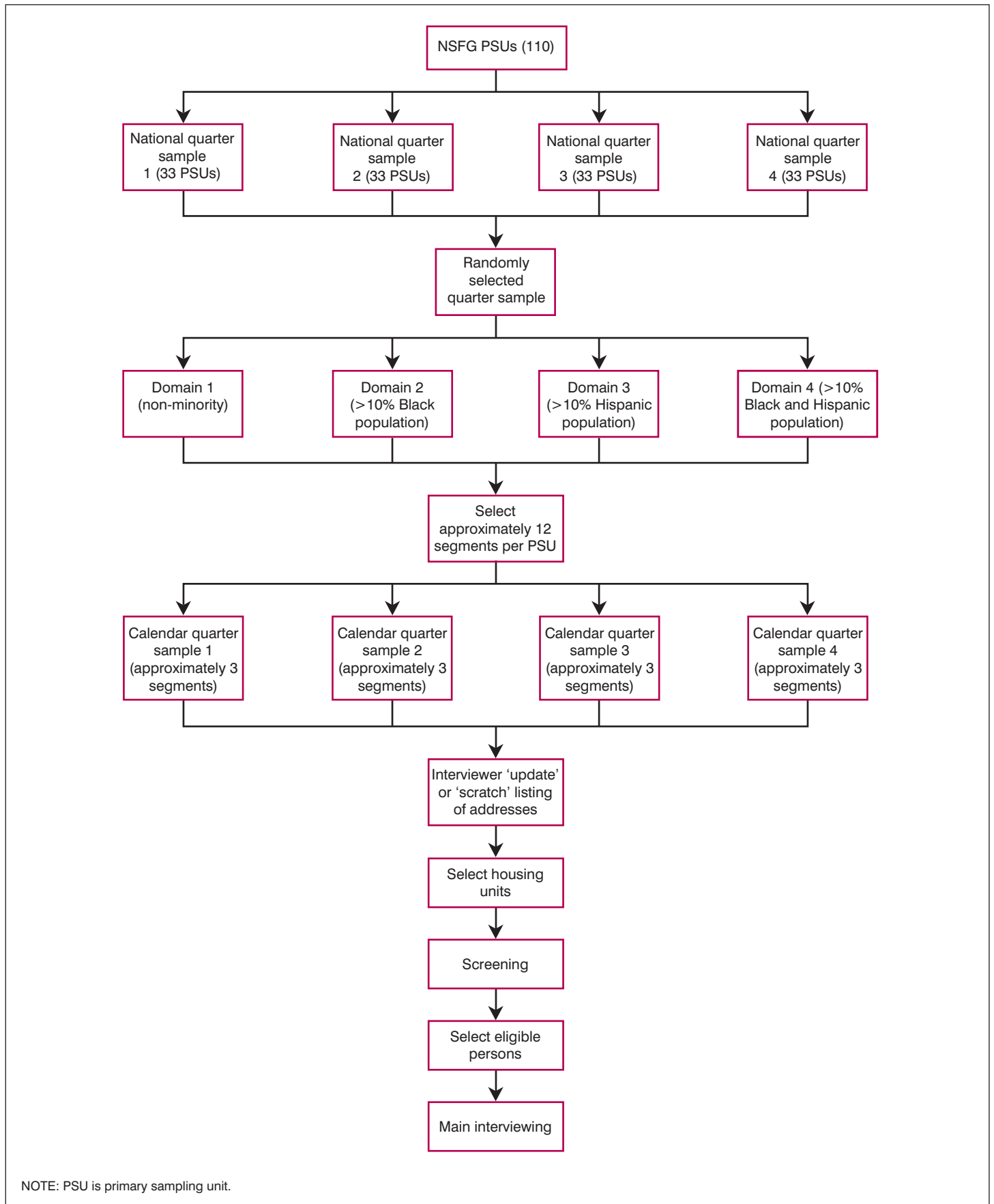


Figure 5. Continuous National Survey of Family Growth: Sample Allocation Summary

accuracy of the list. In the “scratch” segments, interviewers visit the segment and list all housing units. ISR central office staff selects a sample of the updated or listed addresses for screening and interviewing. More details on the stages of sample design can be found in the Series 2 report for continuous interviewing (18).

The sample housing units were then contacted, and a “screener” interview was requested, in which the persons living at that address (including persons living away from the household in a college dormitory, sorority, or fraternity) were listed. If one eligible person 15–44 years of age was living at the address, he or she was asked to do an interview. If more than one eligible person lived there, one was randomly selected and asked to do an interview.

Implementing the Sample in a Responsive Design Context

Surveys with high response rate goals and limited budgets, such as the continuous NSFG, need a way to stay informed on the level of key survey design parameters, such as completed interviews, eligibility rates, response rates, expenditures, and interviewer productivity. If these data are going to be useful for managing the fieldwork and controlling costs, they must be available daily, so that changes to the design and fieldwork strategy can be made in response to conditions in the field (12,16,17).

The continuous NSFG has information systems that allow survey design changes throughout the data collection. The information systems provide daily data (called paradata) on such features as how much interviewer labor and money are being spent on data collection, what areas and interviewers are having good and poor results, and what types of nonresponse are most prevalent in an area. ISR used a system called SurveyTrak to provide that daily information.

Overview of Sample Weighting

A detailed explanation of weighting in the 2002 NSFG has been published (16), and another will be published for continuous interviewing (18). This section gives a brief general overview of weighting in the NSFG. Use of sampling weights is necessary to produce accurate statistics (for example, percentages and means) and also to produce correct estimates of the standard errors of those statistics.

A simple random sample in which response rates and coverage are the same in every subgroup would create a “scale model” of the population. However, many survey samples are not “scale models” in that sense. If a “scale model” of the population is selected, smaller groups in the population (for example, teenagers, African Americans, and Hispanics) would have too few observations in the sample to provide adequate precision for characteristics of interest for those groups. As a result, survey samples often select groups at higher and lower rates deliberately to over-represent smaller groups in the sample. This allows analysts the opportunity to answer key survey questions for the total population and for those small but often important groups of the population.

For example, in the NSFG, non-Hispanic black women and men were being chosen to account for about 20 percent of all respondents in the sample, even though they are approximately 13 percent of the population 15–44 years of age. Hispanic women and men and teenagers of all races were also sampled at higher rates than non-Hispanic non-black adults in this cycle of the NSFG. “Sampling weights” adjust for these different sampling rates.

A respondent’s sampling weight can be interpreted as the number of persons in the population that he or she represents. For example, if a woman’s sampling weight is 8,000, then she represents 8,000 women in the population. For the NSFG, the fully adjusted sampling weights are assigned

to each respondent and consist of three factors. The first is the inverse of the probability that the case was selected. For example, in the NSFG, records are maintained to allow the computation of the probability of selection for each sample person. If the probability is 1 in 6,000, then the initial sampling weight is 6,000. The second factor is an adjustment for nonresponse calculated separately and based on the probability of completing a screener and the probability that a completed screener results in a completed interview. If, for example, the probability of a completed screener was .91 and the probability of a completed interview was .825, then the probability of a completed interview was about $(.91 \times .825)$ or .75, and the adjusted weight would be 6,000 divided by .75, or about 8,000. The third factor is termed “poststratification” and is an adjustment to control totals of the number of persons by age, sex, race, and Hispanic origin, provided by the U.S. Census Bureau (and, for military personnel living in a household outside of a military facility, the Defense Manpower Data Center).

Overview of Variance Estimation

Sampling variance is a measure of the quality of a statistic (such as a proportion or a mean) caused by having taken a sample instead of interviewing the full population. For example, in the NSFG, the sampling variance measures variation caused by interviewing approximately 5,000 women and men in a single year, instead of interviewing all of the approximately 120 million women and men 15–44 years of age in the nation. Sampling variance measures the variation of the estimated statistic over repeated samples. The sampling variance is zero when the full population is observed, as in a census.

For the NSFG, the sampling variance estimate is determined by the sample design and the population parameter being estimated, and it is called the design-based sampling variance. The NSFG data file contains a final weight and information necessary

to estimate the sampling variance for a statistic. Many statistical software packages by default compute “population” variances that may severely underestimate the sampling variances.

Special software is required to accurately estimate sampling errors in a complex sample such as the NSFG, but such software is increasingly common and easy to use and obtain. Examples of how to use such software to estimate sampling errors for the 2006–2008 NSFG are not included in this report, but examples will be presented with each data release from the continuous data collection. For examples of variance estimates based on the 2002 NSFG, see reference 16; for further details about variance estimates for continuous interviewing, see reference 18.

Development of the Questionnaires and Questionnaire Programs for the Continuous National Survey of Family Growth

There are two versions of the NSFG questionnaire, one for females and one for males. The questionnaires were programmed in a CAPI software system called Blaise®. The questionnaires were based on complex contingent logic, which tailors the wording of questions to the circumstances of the respondent, automatically skips the interviewer to the appropriate next question based on earlier answers, and alerts the interviewer to inconsistencies in responses. The male and female questionnaires were organized differently, and each contained some unique content, but they also contained similar questions for most substantive topics. Both questionnaires were translated into Spanish, as described in the following text.

Computer-Assisted Personal Interviewing (CAPI) and Audio Computer-Assisted Self-Interviewing (ACASI) Development

The CAPI and ACASI questionnaires used in the 2002 NSFG were the basis for the questionnaires used in 2006–2008. The effort to improve the content and organization of those questionnaires was described in the “The Transition to Continuous Interviewing” discussed previously.

The NSFG staff at NCHS led the effort to revise the questionnaire specifications, aided by the NSFG staff at ISR. The NSFG staff at ISR worked with the ISR programmers on the implementation of the new instrument specifications. The female and male questionnaires were revised, reprogrammed, and then tested on a coordinated schedule. While the programmers worked on one instrument, the other instrument was tested at ISR and NCHS. This schedule made efficient use of available resources and avoided unproductive downtime for either group.

Audio files used in the ACASI section of the questionnaires, both in English and Spanish, were also updated each year as necessary.

Testing

Testing of the questionnaire programs was conducted by ISR staff and by NCHS in numerous rounds, with a slightly different focus in each round. Identified problems were fixed and the instruments were sent to NCHS for more testing. Overall, there were usually four to five rounds of testing for each instrument (male and female) as well as sign-off rounds of testing for the Spanish questionnaire, the version of the questionnaires used for interviewer training, and the final version for production, as well as testing of the questionnaire integrated into SurveyTrak (the ISR sample management system).

For the most part, each instrument was tested as an integrated unit, including the screening portion of the

questionnaire and the male or female interview. The first round of testing focused on the logic, flow, and edit checks in the instrument as well as checking that the text of the programmed questions matched the CAPI Reference Questionnaire (CRQ) that was developed to direct the CAPI programming. In the later rounds of testing, problems identified during the earlier rounds were tested to see if they had been resolved; screen formatting, electronic “Help” screens, and ACASI sound files were also tested.

Spanish Translation

Given the growth of the Hispanic population into the largest minority group (19), it is critical for the NSFG to obtain accurate information about the attitudes and behaviors of Hispanic men and women. Census 2000 showed that 49 percent of Hispanic persons over the age of 5 who spoke Spanish did not speak English very well (20). Therefore, it is important to have a Spanish version of the NSFG questionnaire. Roughly 6–7 percent of the completed NSFG interviews were conducted in Spanish. About one-third of Hispanic men and women interviewed in the NSFG chose to do the survey in Spanish.

Potential respondents who do not speak English or Spanish are not included in the NSFG. In 2006–2008, this group accounted for about 0.6 percent of screened households and 0.5 percent of main interview households.

The Spanish translation of the NSFG instruments for the 2002 and 2006–2008 NSFG was done by Research Support Services (RSS), a firm specializing in translation, working in close collaboration with ISR and with bilingual staff at NCHS. (For a description of the translation and review process used in the 2002 NSFG, see reference 21).

For the 2002 NSFG (Cycle 6), a Modified Committee Approach was used, in which the original translation was performed by three translators, doing one third of the instrument each, instead of three whole independent translations (22). This approach had been used extensively by RSS and

found to maintain the strength of the traditional committee approach, while being less expensive and less time consuming. The division of material among the translators was done in a way that avoided giving entire sections or modules to a single person. Instead, pages are sorted into three piles, one for each translator, “in the alternating fashion used to deal cards in card games” (23). This assured that all three translators were familiar with the different topics covered in the instruments.

The modified committee approach did not include back translation (giving a second translator the Spanish instrument and having him or her translate it back into English in order to compare the two versions of the instrument). A major drawback of the back-translation method is that even when the back translation text is identical to the original, this does not give the researcher any sense of whether respondents will be able to understand the translated version.

The translation had to be sensitive to differences in vocabulary choices among major groups of Hispanics, including Mexicans, Puerto Ricans, Cubans, and others, given that the survey was to be administered in Spanish to a nationwide sample of Hispanic persons. In addition, the Spanish version had to be appropriate for less educated and newly arrived Spanish-speakers because this is the Hispanic group that is most likely to request to be interviewed in Spanish.

The committee that worked on the NSFG translations included translators who were native speakers of some of the main varieties of Spanish spoken by the Hispanic population in the United States (one from Mexico, one from Puerto Rico, and one from South America). Two of the translators were males, while the other translator and the referee were female. The committee translated the female questionnaire, the male questionnaire, and the accompanying materials (for example, informed consent letters). The translation reconciliation sessions took a total of 21 hours. A referee, with extensive experience in survey instrument translations, chaired the

reconciliation meeting. The strength in this model comes from the consensus among bilinguals, which results in more accurate text than in a subjective single translation. In addition, problems of personal idiosyncrasies, culture, and uneven skills in either language could be overcome.

Items or terms were flagged for further research when the team was unable to reach an agreement. A subset of items was tested in cognitive interviews in order to identify questions that presented problems and reasons for the existence of these problems. RSS interviewed nine Spanish-speaking women and nine Spanish-speaking men. All were immigrants from eight different countries in Latin America. Their ages ranged from 16 to 41 and their age at the time of immigration also ranged widely, from age 10 to 36. Their years of schooling varied from 3 to 19. The cognitive interviews consisted of three types of questions: questions that tried to ascertain participants’ understanding of specific words for which familiarity to speakers was uncertain; questions asking about definitions; and questions about hypothetical situations in the form of vignettes. The Spanish language instruments were edited based on information learned from the cognitive interviews.

Once the Spanish language version of the questionnaire had been finalized, it had to be incorporated into the Blaise® program. Using the English language program as a template, the Spanish text was copied and pasted into the program by ISR staff. Programmers were called upon to work on areas of the questionnaire that required substantial technical changes from English to Spanish, such as major restructuring of fills. Bilingual testers were used to make sure the Spanish instruments had been constructed properly. Specifically, they examined the instruments to make sure there were no English words showing up in the Spanish questions and that the fills worked correctly. Although it was not their main focus, their review provided an additional check of the basic instrument flow and structure.

In Blaise®, interviewers can switch the language of the instrument with a single keystroke. The ACASI portion of the interview is also translated into Spanish with an audio part in Spanish. The recorded voice is from a woman of Colombian descent as previous research shows that the accent can be understood by a majority of Spanish-speaking communities (24).

In the continuous NSFG, the translation did not need to be repeated from scratch, but translation work was necessary for parts of the questionnaires that changed between 2002 and 2006. RSS translated new questions, new response categories, and supporting materials to reflect questionnaire changes for 2006, 2007, and 2008. Changes in ACASI also required the re-recording of the audio part of the modified questions. The original “Spanish voice” was brought back to record the new or revised text to maintain consistency in the audio portion of ACASI each year.

Overview of the National Survey of Family Growth Questionnaire Content

The most important goal of the NSFG is to collect nationally representative data on factors affecting birth and pregnancy rates, family formation, and the risks of HIV and other STDs. To avoid burdening the following text with dozens of references, we will cite the following studies that contain numerous examples of how NSFG data are used and presented:

- For the female data, see Chandra et al 2005 (25); and Mosher et al 2004 (26).
- For the male data, see Martinez et al 2006 (27).
- For data on both sexes, see reports on teenagers (28), sexual behavior (29); and HIV risk behaviors (30).

The next two sections review the main areas covered in the female and

male questionnaires and explain the uses of the data in the major sections of the questionnaires.

The male and female questionnaires collected much of the same information, but the questionnaires were structured somewhat differently. The female questionnaire was organized by major topics: first a pregnancy history was collected in chronological order from first to last, then marriages and cohabitations in chronological order, and then a contraceptive history.

In contrast, the **male** questionnaire was organized relationship by relationship: information on contraceptive use, sexual activity, and children fathered was collected by asking about them in the context of the marriage or other relationship in which they occurred. Experts from surveys on closely related topics suggested to NCHS that many men can recall this type of information more easily and accurately if the survey ties these behaviors to the partners with whom they occurred (31).

A summary of the female questionnaire is shown in [Figure 6](#), while the male questionnaire is summarized in [Figure 7](#).

The Female Questionnaire

Female Section A: Introduction, calendar instructions, demographic characteristics, household roster, childhood background

Many studies have shown that demographic characteristics—such as age, race, education, employment, and family background—have important effects on outcomes that are central to the NSFG, such as living together, marriage, family size, sexual activity, and contraceptive use. Section A began by asking about the age, sex, race, and Hispanic origin of each household member, and how household members are related to the respondent. At this point in the female questionnaire, the respondent was introduced to the Life History Calendar ([Appendix VI](#)). This calendar was used mainly to help the

respondent remember dates during the interview.

Next, the respondent was asked about her current or last attendance at school or college, her highest level of education completed, whether she has a high school diploma or GED, and any college degrees she may have. The next questions concern whether she always lived with both of her biological or adoptive parents until she turned 18, and if not, with whom she was living at age 14. Age 14 was used as an estimate of the respondent's situation in adolescence. Questions were also asked about the respondent's mother's and father's education, whether her mother (or mother-figure) worked during the respondent's formative years, the total number of children the respondent's mother had, and her mother's age when her first child was born.

Female Section B: Pregnancy and birth history, adoption, and nonbiological children

One of the primary purposes of the NSFG is to provide data on women's lifetime experiences with pregnancy and childbearing. Section B of the survey covered pregnancies, biological children, and adoption. First, the respondent was asked about the onset of menstruation, whether or not she was currently pregnant, and how many times, if any, she has been pregnant. For each pregnancy, she was asked about the pregnancy outcome (i.e., did it end in live birth, miscarriage, and so forth) and the pregnancy (or gestational) length.

If the pregnancy resulted in a live birth, she was asked follow-up questions about the baby that was born and about the delivery. For births and pregnancies that ended within the last 5 years, more detailed information was collected on cigarette smoking, prenatal care, maternity leave, and payment for the delivery. For all of her children currently aged 18 or younger, the respondent was asked whether and for how long she breast-fed each baby.

Following the pregnancy questions, the questions focused on adoption. First, the respondent was asked about any children born to her that she had placed for adoption. Women 18–44 years of

age are asked a short series of questions about any nonbiological children who may have lived with them under their care and responsibility. Greater detail was obtained for children she legally adopted or for whom she became legal guardian. Finally, adult women (18–44 years of age) were asked about their current and previous pursuit of adoption. Women currently seeking to adopt were asked some additional questions about their preferences for the characteristics of a child they would adopt (for example, age and race). This information is important for describing the current demand for adoption in the United States (32).

Female Section C: Marital and relationship history

In Section C, information was gathered on marriage, cohabitation, and sexual activity. These data are used to understand family formation and dissolution, as well as the patterns of sexual relationships. For every husband or cohabiting partner the respondent reports, she was asked whether they have had biological children together and whether he had prior marriages or children from prior relationships. Additional questions on his education, race, and Hispanic origin are asked for current husbands or cohabiting partners. Respondents were asked about their expectations to marry or cohabit.

The latter half of Section C focuses on the first sexual intercourse and recent sexual activity. First, all respondents who have never been married, never cohabited, and never been pregnant were asked whether they had ever had sexual intercourse. If the respondent had had intercourse, she was asked the month and year she first had intercourse and her age at that time. Next, respondents who are younger than 25 years old are asked about their experience with sex education.

Then, for those who have had sex, basic information was collected about the respondent's first intercourse, her first male partner, and male sexual partners she has had within the past 12 months (up to three partners). If a recent sexual partner is "current," questions are similar to those for current husbands

Section	Main Topics
Section A	<ul style="list-style-type: none"> • Respondent demographic characteristics (age; DOB; marital/cohabitation status; race and Hispanic origin) • Household roster (age; sex; relationship to respondent) • Introduction to Life History Calendar • Education (degrees; highest grade completed; date last attended) • Childhood family background and parents
Section B	<ul style="list-style-type: none"> • Onset of menstruation (menarche) • Current pregnancy status • Number of pregnancies • Detailed pregnancy history (more details if in last 5 years) • Confirmation of pregnancy history • Care of nonbiological children (women 18–44) • Relinquishment of biological children for adoption • Adoption plans and preferences (women 18–44)
Section C	<ul style="list-style-type: none"> • Marital history and characteristics of each husband • Details on current cohabiting partner, if there is one • Cohabitation history; characteristics of former cohabiting partners • Whether the respondent has had biological children with each of her husbands and cohabiting partners • Ever had sexual intercourse (asked if never married, never pregnant and never cohabited): <ul style="list-style-type: none"> – Age and date of first intercourse – Characteristics of first sexual partner (if not already discussed) – Date and age of first intercourse after menarche • Sex education (R's 15–24); timing relative to first sex • Number of sexual partners (in lifetime; in past 12 months; before first marriage) • Recent (last 12 months) partner history, up to 3 partners (or last partner ever, if none in the past 12 months); more details on current partners
Section D	<ul style="list-style-type: none"> • Sterilizing operations (respondent and husband/cohabiting partner) • Desire for sterilization reversal (tubal ligations and vasectomies only) • Nonsurgical sterility and fertility problems (respondent and husband/cohabiting partner)
Section E	<ul style="list-style-type: none"> • Ever-use of contraceptive methods, how emergency contraception was obtained, discontinuation of use, and reasons for dissatisfaction with selected methods • Details on first method ever used (even if before first intercourse) • Method use at first sexual intercourse • Months during which she had intercourse for past 3–4 years or since first intercourse (if within the last 3–4 years) • Contraceptive method history by month, for past 3–4 years or since first method used • Method used at first and last sex, for up to three partners in last 12 months • Wantedness of each pregnancy (by respondent and by father of pregnancy) • Happiness to be pregnant scale • Further details on circumstances surrounding pregnancies in last 3 years (including wantedness with that partner) • Current method use, reasons for current nonuse • Recent pill use (reasons; brand and type, consulting the Pill Chart) • Consistency of condom use in last 4 weeks • Frequency of sex in past 4 weeks
Section F	<ul style="list-style-type: none"> • Use of medical services related to birth control and reproduction in the last 12 months (services include receipt of: birth control method; checkup or medical test related to using birth control; counseling about birth control; sterilization; counseling about getting sterilized; emergency contraception; counseling about emergency contraception; pregnancy test; abortion; Pap smear; pelvic exam; prenatal care; post-pregnancy care; testing or treatment for sexually transmitted disease (STD)) • Provider and payment information for each visit for these services in last 12 months (more detail if specific clinic is cited) • Activation of clinic lookup if service was received at a clinic • First service ever received is asked of women 15–24 years of age, including when received, and type of provider • If clinic is regular source of medical care • Ever visited a clinic
Section G	<ul style="list-style-type: none"> • Do you want a/another baby (respondent and partner) • Intentions to have a/another baby • Number of additional children (respondent/respondent and husband) intend to have

Figure 6. Outline of the Female Questionnaire

Section	Main Topics
Section H	<ul style="list-style-type: none"> • Infertility services (help to get pregnant; help to prevent miscarriage) • Infertility diagnoses received, if ever pursued medical help to get pregnant • Vaginal douching • Health problems related to childbearing (pelvic inflammatory disease; diabetes (gestational & nongestational); ovarian cysts; uterine fibroids; endometriosis; problems with ovulation or menstruation) • Physical disabilities/limitations • HIV testing experience (some items limited to last 12 months) • Where HIV test was received, if within the last 12 months • HPV vaccine-related knowledge and experience
Section I	<ul style="list-style-type: none"> • Health insurance coverage in last 12 months • Current residence and residence as of April 1, 2000 • Place of birth (date came to the United States, if born outside of the United States) • Religion and attendance at religious services, at age 14 and currently • Work in past 12 months and current work status (respondent and husband/cohabiting partner) • Child care arrangements used (if any) in past 4 weeks for children under 13 • Attitudes: relationships, sex, condom use, gender roles, parenthood
Section J (ACASI)	<ul style="list-style-type: none"> • General health, including height and weight • Pregnancy history (numbers ending in live birth, abortion, or other outcomes) • School suspension/expulsion (for respondents 15–24 years old) • Substance use (cigarettes; alcohol; marijuana; cocaine; crack; crystal meth, IV drugs) • Sexual experience with males (vaginal intercourse, oral sex, and anal sex; condom use at last occurrence of each type of sex; timing of oral sex relative to vaginal intercourse (if age 15–24 and have had both types of sex); nonvoluntary intercourse with males (asked only for age 18 or older); numbers of male partners in lifetime; numbers of male partners in last 12 months (including numbers by specific type of sex); and other HIV/STD risk behaviors) • Sex with females, including number of female partners • Sexual orientation and attraction • STD experience (some items limited to last 12 months) • Individual earnings, family income, and public assistance during the previous year

Figure 6. Outline of the Female Questionnaire—Con.

or cohabiting partners. These questions ask about his age and education. Partner characteristics are important to assess the changing patterns of contraceptive (particularly pill and condom) use—trends central to the prevention of teen pregnancy, unintended pregnancy, STDs, and HIV. Data were also obtained about the total number of male sexual partners she had had in her entire life, in the past 12 months, and for those who have been married, the number she had before her first marriage.

Female Section D: Sterilizing operations and fertility problems

In Section D of the survey, questions were asked about surgical sterilizations and fertility problems. Data on surgical sterilizations are needed to measure how many women use sterilization as a contraceptive method, and changing preferences for sterilization versus other contraceptive methods. If the respondent reported that

either she or her current husband or cohabiting partner has ever had a sterilization operation, she was asked the date of the operation. For each operation within the last 5 years, respondents were asked the location where it was done, the method of payment, and the reasons for the operation. Women were also asked about possible medical reasons they may have had for the sterilization operations they report, as well as reasons related to their previous methods of birth control. Any respondent reporting tubal sterilization or vasectomy as her and her husband's or partner's only operation is asked about reversal procedures and desire for reversal.

Finally in this section, the respondent was asked if she was sterile for any nonsurgical reasons, if she would have a physical difficulty getting pregnant or carrying a child to term, or if her partner had any fertility problems. The NSFG is the only national data source on the prevalence of fertility problems among U.S. women and their

husbands or cohabiting partners, and these questions are a key ingredient of the NSFG infertility measures (25).

Female Section E: Contraceptive history and pregnancy wantedness

Contraceptive use and unintended pregnancy are key topics for the NSFG and they are the focus of Section E. Data were gathered regarding the birth control methods used by the respondent, including types of contraceptives she has ever used, discontinuation of any contraceptive method used, and reasons for dissatisfaction with selected methods. The respondent was also asked which method was **the first** method she ever used.

Then, to measure how well methods work to prevent pregnancy and to measure the prevalence of infertility, she was asked to identify months when she was and was not having intercourse during the past 3–4 years. Next she was asked to identify contraceptive methods

Section	Main Topics
Section A	<ul style="list-style-type: none"> • Respondent demographic characteristics (age; DOB; marital/cohabitation status; race and Hispanic origin) • Household roster (age; sex; relationship of each member to respondent) • Education (degrees; highest grade completed; date last attended) • Basic information about his childhood family background and parents • Numbers of marriages and cohabitations
Section B	<ul style="list-style-type: none"> • Ever had sexual intercourse • Sex education received (Rs aged 15–24 only) • Sterilizing operations • Ever had biological child(ren); how many • Enumeration of (up to) three most recent female sexual partners, or last partner ever
Section C	<ul style="list-style-type: none"> • Marital and cohabitation dates for current wife/partner • Surgical sterilization and infertility (wife/partner) • Biological children with current wife/partner (more details if born in last 5 years) • Other children his current wife/partner had from previous relationships (more details if he lived with the child) • Other nonbiological children he or his current wife/partner ever cared for • First and last sex: dates and contraceptive use • Contraceptive use in last 12 months
Section D	<ul style="list-style-type: none"> • Characteristics of (up to) three sexual partners in the past 12 months or last partner ever, contraceptive use at first and most recent sex, and date of first sex in the last 12 months • Information on children with these partners (collected as above in C) • First intercourse ever (if not already discussed): date, contraceptive method use, and characteristics of partner
Section E	<ul style="list-style-type: none"> • Characteristics of former wives and first cohabiting partner
Section F	<ul style="list-style-type: none"> • Other biological children (information collected as above in C) • Other nonbiological children ever raised (more details if adopted, as above in C—E) • Pregnancies fathered in his lifetime that did not result in live birth (total number and numbers by outcome) • Exact number of female partners—lifetime and in last 12 months
Section G	<ul style="list-style-type: none"> • Activities with the children living in his household • Activities with his biological and adopted children living elsewhere • Financial support of his biological and adopted children living elsewhere
Section H	<ul style="list-style-type: none"> • Desire for (wanting) a/another baby (respondent & wife/cohabiting partner) • Intentions to have a/another baby, asked individually or jointly, as appropriate
Section I	<ul style="list-style-type: none"> • Usual source of health care • Health insurance coverage in last 12 months • Health services received in last 12 months (more details if under age 25) • Infertility services received • HIV testing experience
Section J	<ul style="list-style-type: none"> • Current residence and residence as of April 1, 2000 • Place of birth (date came to United States, if born outside of the United States) • Religion and attendance at religious services, at age 14 and currently • Military service • Work status (respondent and wife/cohabiting partner) • Attitudes: relationships, sex, condom use, gender roles, parenthood
Section K (ACASI)	<ul style="list-style-type: none"> • General health questions • Significant life events • School suspension/expulsion (for respondents 15–24 years old) • Pregnancies fathered • Substance use (alcohol; marijuana; cocaine; crack; crystal meth; IV drugs) • Sexual experience with females (vaginal intercourse, oral sex, and anal sex; condom use at last occurrence of each type of sex; timing of oral sex relative to vaginal intercourse (for respondents 15–24 who have had both types of sex); nonvoluntary intercourse with females (asked only for respondents 18 or older); numbers of female partners in lifetime; numbers of female partners in last 12 months (including numbers by specific type of sex); and other HIV/STD risk behaviors) • Sexual experience with other males; condom use at last occurrence of anal or oral sex; nonvoluntary sex with males (asked only for respondents 18 or older); HIV/STD risk behaviors, including number of male partners) • Sexual orientation and attraction • STD experience (some items limited to last 12 months) • Individual earnings, family income, and public assistance during the previous year

Figure 7. Outline of the Male Questionnaire

she used each month during the past 3–4 years. This detailed information on intercourse and contraceptive use allows researchers to analyze how well the methods work in preventing pregnancies (33).

The NSFG provides important national data on unintended pregnancies among U.S. women (34). Information was also obtained about respondents' current pregnancy intentions, current methods of birth control, where birth control methods were obtained, and if they were not using birth control, their reasons for nonuse. The section concluded with a few specific questions about birth control pills (the most commonly used method in the United States) and condom use.

Female Section F: Family planning and medical services

Questions on the use of family planning and related medical services are essential to an understanding of contraceptive use and reproductive health. In Section F, women were asked about services received in the last 12 months, including whether their care was received from clinics or private doctors, and how the care was paid for (private insurance, Medicaid, etc.) Women who received services at a clinic in the last 12 months were classified by the type of clinics they used.

Female Section G: Birth desires and intentions

Questions in Section G focused on the respondent's desire to have children in the future and her intentions to actually have children. Currently married or cohabiting women were asked whether she and her partner intend to have children in the future. Respondents who are not currently married or cohabiting were only asked about their individual intentions for future children. This information is used to track trends and group differences in expected family sizes.

Female Section H: Infertility services and reproductive health

The NSFG is the only nationally representative source of information on the use of medical services for infertility in the United States. In Section H, the respondent was first asked whether she or her partner (in any of her marriages or relationships) had ever received medical help to get pregnant. If yes, she was asked about the specific types of medical help she or her partner(s) received and related details about her recent pursuit of these medical services. The respondent was also asked about any medical help she may have ever received to prevent miscarriages. Taken together, these series of questions help to measure the use of various treatments and services for infertility.

Questions about other behaviors and conditions that might affect childbearing and health then follow, including questions on vaginal douching, pelvic inflammatory disease (PID), diabetes, and physical disability. Since HIV infection and AIDS are critical health concerns in the United States and elsewhere in the world, the questions in this section focused on HIV testing and receipt of HIV-related counseling. The last series of questions in this section (added in 2007) asked about knowledge of and experience with the Human Papillomavirus (HPV) vaccine.

Female Section I: Insurance, residence, work experience, and attitudes

Section I gathers important background information about the respondent and her husband or cohabiting partner (if she is married or cohabiting). First the respondent is asked about her health insurance coverage over the past year. This is followed by questions about the respondent's current residence, her residence at the time of the 2000 Census, and whether she was born outside the United States. These questions are asked in part because neighborhood conditions can have

important influences on the fertility, contraceptive, and marital behavior of the men and women living there (11). Questions were also asked about the respondent's religious affiliation and attendance, both while growing up and at the time of interview.

Research has documented important effects of employment on childbearing and marriage. Section I includes a short series of questions about the respondent's work experience and current employment status. A similar series of questions is asked about the current or most recent employment of the respondent's husband or cohabiting partner, if she has one. Women living with any children under 13 years of age are asked about child care arrangements they may have used during the last 4 weeks.

This section concludes with a set of questions about the respondent's attitudes and opinions about marriage and divorce, sexual activity, condom use, gender roles, and parenthood.

Female Section J: ACASI (audio computer-assisted self-interview)

Section J, available in both English and Spanish, gives the respondent an opportunity to answer a series of sensitive questions privately using the computer and headphones. In the interviewer-administered (CAPI) part of the interview, we only ask about intercourse that can result in pregnancy and birth—heterosexual vaginal intercourse. In the ACASI part of the interview, the questions were broadened to include oral and anal sex and same-sex activity, because they affect the risk of HIV and other STDs.

The first few questions served as practice to familiarize the respondent with the mechanics of the ACASI section. During these practice questions, the respondent was given the chance to ask the interviewer any questions about how to use the computer in order to move through this last part of the interview. Once the laptop was turned over to the respondent, general health questions were asked, followed by

questions about cigarette, alcohol and drug use; numbers of pregnancies; sexual experience with males and females; nonvoluntary sexual intercourse with males (asked only of adult women 18–44 years of age); STD/HIV risk behavior with males; sexual orientation and attraction; STD experience; individual and family income; and receipt of public assistance in the year prior to the interview. These questions provide a national estimate of the number of men and women at risk of HIV in the United States, and the specific behaviors that put them at risk (29,30).

The Male Questionnaire

The male and female questionnaires cover many of the same topics but are structured differently. The female questionnaire asked a series of questions about pregnancies, followed by series on marriages and other relationships, and then contraceptive use. In contrast, the male questionnaire asked about contraceptive use, sexual activity, and fatherhood for each female marital, cohabiting, or sexual partner. For example, the male questionnaire includes:

- A complete marriage history (in Sections C, D, and E).
- Information on biological, adopted, or other children the respondent has fathered or lived with, asked in the context of questions about the mother of the child (in Sections C, D, and E). In Section F, we ask about any other children who were not covered in the earlier sections.
- Information on contraceptive use for up to three partners in the last 12 months (asked in Sections C and D, depending on who those partners were).
- Greater detail on contraceptive use and relationship characteristics for partners deemed “current” (i.e., the current wife or cohabiting partner described in Section C, and any of the “up to three most recent partners in the last 12 months” described in Section D).

Male Section A: Demographic characteristics; household roster; childhood background; numbers of marriages and cohabitations

Section A is the same as in the female questionnaire, until **male** respondents were asked how many times they have been married and how many times they may have lived together (cohabited) with female sexual partners. The responses to these questions determine what questions are asked in the rest of the interview.

Male Section B: Sex education, sexual experience, and sterilization and infertility

Section B is designed to measure the population of males who are sexually experienced (roughly the population at risk of causing pregnancy) and to estimate changes in sexual behavior over time. Men who are or have been married, or have ever cohabited, are assumed to have had intercourse. Men who have not been married or cohabited are asked whether they have ever had vaginal sexual intercourse with female partners. Then respondents younger than 25 were asked about sex education they may have received and whether this instruction was before or after the first time they had intercourse. Respondents who have had intercourse are asked about any biological children they may have fathered. Questions are also asked about the respondent’s total number of female sexual partners in his lifetime and in the past 12 months. Finally, respondents were asked to report the month and year in which they last had intercourse in the last 12 months, for each partner (up to 3).

This section also obtains information on sterilizing operations (most commonly a vasectomy) and male infertility. If the respondent reports a sterilizing operation within the last 5 years, he is asked about the place where the operation was performed and how it was paid for. Data on vasectomies are needed to measure how many men use this contraceptive method, and changing

preferences for sterilization versus other contraceptive methods.

Male Section C: Current wife or cohabiting partner

In Section C, respondents were asked to provide information about contraception and fertility with his current wife or cohabiting partner. This section asked for dates of marriage and cohabitation, demographic characteristics of the wife or cohabiting female partner, and her experience with sterilization and fertility problems. The dates of his first and most recent sexual intercourse with this partner, and methods of contraception used with this partner in the last 12 months, were also obtained.

The respondent was then asked a series of questions about biological children he has had with his current wife or cohabiting partner, including whether he wanted each pregnancy (if the birth was in the last 5 years), paternity establishment (if the birth occurred outside of marriage), and the current living arrangements of the children. This was followed by a series of questions about children his current wife or partner may have had from previous relationships. The section concluded with a series of questions about any other nonbiological children he may have cared for with her, if the child ever lived with the respondent. For both of these groups of children, he was asked for basic demographic information, current living arrangements, and whether he adopted or assumed legal guardianship of the child.

Male Section D: Recent sexual partners and first sexual partner

The NSFG collected information in Section D on the characteristics of up to three recent female sexual partners (i.e., in the 12 months preceding the interview) or the last partner (if none in the last 12 months). These questions included demographic information, date of first sex with her, contraceptive methods used, and births fathered. Partner characteristics are important in assessing the changing patterns of use of the condom and other contraceptive

methods—trends central to the prevention of unintended pregnancy, STDs, and HIV.

For each of the partners discussed in Section D, he was also asked about biological children he may have had with her, with questions similar to those described above in Section C, as well as nonbiological children. This section ends with questions about the respondent's first sexual intercourse, if it has not already been covered, including his age, some characteristics of that partner, and contraceptive use.

Male Section E: Former wives and the first cohabiting partner

This section collected information about former wives and the first female cohabiting partner. The respondent is asked for the month and year of marriage, cohabitation, and dissolution. Questions about children with former wives or cohabiting partners are similar to those asked for current partners in Section C.

Male Section F: Other biological children, other adopted children, other pregnancies

Section F completes a man's fertility history by asking about any other biological children he fathered with women not previously discussed in the interview—that is, he was never married to them, they were not among his three most recent partners in the last 12 months, and they were not his first cohabiting partner. The questions about these children are similar to the ones asked in Sections C through E. However, the respondent is also asked a few characteristics of the mother of each child who was not previously discussed (for example, her age at time of the birth). It also asks about other nonbiological children that the respondent cared for, if they were not covered in earlier sections.

Male Section G: Fathering

Section provides important information on what the respondent does to raise his children. Separate series of questions are asked for children that he

lived with and those he did not live with. The specific questions asked depend on the age of the children. For example, some questions are asked for children under 5 years of age (for example, whether he “bathed, diapered, or dressed” them); and some for children 5–18-years-old (for example, whether he helped them with homework). The respondent was also asked about financial support of any biological or adopted children who did not currently live with him.

Male Section H: Desires and intentions for future children

Questions in this section asked the respondent about his desire and intention to have children in the future and the number of children he would like to have. If the respondent is married or cohabiting, he was asked about the joint desires and intentions of the respondent and his partner. These questions were the same as the questions for females on this topic. This information is used to help track trends over time in expected family sizes.

Male Section I: Health conditions and health services

Information from this Section I is used to collect some of the first national data on the reproductive health care of men of reproductive age (35). The respondent was first asked about his usual source of health care and his health insurance coverage over the past 12 months. He was also asked about use of family planning services. Men were then asked about specific health services they may have received in the 12 months preceding the survey, including a routine physical exam, screening for testicular cancer, counseling about contraception or sterilization, and testing or treatment for STDs, including HIV and AIDS. If respondents under age 25 report receiving any of these services in the last 12 months, they were asked about the providers of these services and how they were paid for.

This section also collects data on use of infertility services. The female NSFG has long been the only nationally representative source of information on

the use of medical services for infertility in the United States. The male NSFG provides an opportunity to learn more about infertility services from the male perspective. If the respondent has ever received this kind of help in any of his relationships, follow-up questions are asked concerning the specific services he received.

The last questions in the section are about HIV testing and counseling, a critical health concern in the United States and elsewhere in the world. These questions are essentially the same as the series asked of females in Female Section H.

Male Section J: Residence, work experience, and attitudes

This section gathered important background information about the respondent and his current wife or cohabiting partner, similar to the information collected in Female Section I. First, the respondent was asked about his current residence, his residence at the time of the 2000 Census, and whether he was born outside the United States. These questions are used to construct the contextual data files for the NSFG. These files are available through the NCHS Research Data Center. These questions are asked because neighborhood conditions can have important influences on the fertility, contraceptive, and marital behavior of the men and women living there (11). We also ask questions about the respondent's religious affiliation, both growing up and at the time of the interview.

Research suggest that employment has important effects on men's experiences with marriage and fatherhood. Section J includes a short series of questions about the respondent's military service, if any, and his (other) work experience. Questions are also asked about the current or most recent job of the respondent's wife or cohabiting partner, if he has one. Respondents were also asked about their expectations to marry or cohabit.

This section concluded with a set of attitude questions about marriage and divorce, sexual activity, condom use, gender roles, and parenthood.

Male Section K: ACASI (Audio computer-assisted self-interview)

As the ACASI section does for females (discussed previously), Section K gives the respondent an opportunity to answer a series of sensitive questions privately using the computer and headphones, and it can be completed in English or Spanish.

Most of the section was identical for males and females, but there were a few differences. Men are asked more detail about sexual behavior and STD/HIV risk behaviors because same-sex activity among males carries generally greater risk of STD/HIV than same-sex activity among females (29,30). Men were also asked in ACASI whether they have ever been in jail or prison (women were not asked this because imprisonment among women is not common enough to be measured reliably in the NSFG).

How the Data Were Collected

In order to perform screening and in-person interviewing, NSFG interviewers had to be trained; supplied with letters, consent forms, and other materials; provided with laptop computers and other equipment; and supervised. The following section first describes the steps in data collection (also called the “recruitment protocol”), followed by training, materials, then equipment, and finally, supervision, responsive design, and quality control.

Recruitment Protocol

A “recruitment protocol” is a set of procedures specified by the survey designer for interviewers to use to contact, request cooperation from, and interview respondents. The procedures of the recruitment protocol were reviewed and approved by Institutional Review Boards at both NCHS and the University of Michigan (Appendix I).

Many of the materials described or mentioned here and in the following sections of this report are shown in the

appendices. The key steps in the recruitment protocol were:

1. Before contacting households in person, the contractor sent an advance letter and brochure to all sampled households (Appendix II and IV). These materials explained who was sponsoring the survey, who was conducting it, why it was being done, and how the voluntary and confidential nature of the survey was implemented. Spanish versions of the questionnaires, the advance letter, and other introductory materials were available. The materials also cited toll-free phone numbers and the NSFG web site as sources of additional information.
2. In many cases, interviewers were unable to make contact with anyone in the sample household on the first visit and often had to return several times until the household was contacted. If contact was successfully made but the household member (or screener respondent) had no time to complete the screener, the interviewer and the household member tried to find a convenient later time. If the household member had more questions about the survey, the interviewer attempted to answer them.
3. When a field interviewer contacted a sample household, she introduced herself, displayed her identification badge, showed the authorization letter if necessary (Appendix II), and explained the purpose of the study, referring to the advance letter that the household should have already received (see Appendix III). The interviewer may also reference the Question-and-Answer brochure (Appendix IV) to answer the most common questions the household might have about the study.
4. The interviewer conducted a brief household screening interview to determine who, if anyone, might be eligible for the NSFG. If there were no age-eligible persons (15–44 years of age) living in the household, no further contact with the household was made.
5. When a person 15–17 years of age was selected for the sample, signed parental consent had to be obtained before the interviewer could talk to the selected minor. A parental consent form (Appendix V) was used to explain the survey to the minor’s mother, father, or guardian, and request written parental consent. If the parent gave their consent, the minor was asked for his or her signed assent. If either the parent refused to sign the parental consent form, or the minor respondent refused to sign the Minor’s Assent Form (Appendix V), the case was treated as a refusal. (In three states, the age of majority is 19 or 21 instead of 18. In those states, the state’s age of majority was used. In other words, in those states, parental consent was sought for anyone 15–18 years of age if the age of majority is 19, or 15–20 if the age is 21.) Emancipated minors—15–17-year-olds who are married or cohabiting and living away from their parents—are rare in a sample of this size, but when encountered, they are excluded from the sample.
6. If the respondent was 18 years of age or older, the interviewer gave the respondent an Adult Consent Form, which explained the survey and requested signed consent (Appendix V). If an adult respondent agreed to do the survey but refused to sign the form, the interviewer could offer to begin the interview and ask for a signature at the end of the interview. If the respondent again refused to sign (this was rare), the interviewer was permitted to sign noting that the respondent agreed to the interview but did not wish to sign the form.
7. The interviewer gave the respondent \$40, as a token of appreciation for the respondent’s help.
8. The interview was conducted, with the interviewer reading the questions and entering the responses into a laptop computer. Female respondents used a Life History Calendar (Appendix VI) to record the dates and details of events, such as contraceptive use and recent

pregnancies. Interviewers were instructed to conduct the interview in a private setting to ensure confidentiality. If another member of the household came into the room where the interview was being conducted, the interviewer was instructed to pause the interview until the household member left the room. (In those cases where the respondent did not think that a private setting within their own household was possible, the interview could be held outside, or at another nearby location.)

9. Finally, at the end of the interviewer-administered interview, the interviewer gave the respondent a pair of headphones and the laptop computer and showed the respondent how to make simple entries on the computer. The respondent then completed a 10–20 minute Audio CASI. The interviewer could not hear what questions the respondent was asked over the headphones and **could not** see the respondent's answers—in the household or later. Moreover, **no one** in the household could hear or see either the questions or the answers.
10. At the end of the Audio CASI section, the interviewer turned off and locked the computer, thanked the respondent, and left the housing unit.

Interviewer Training

To prepare interviewers for the successful completion of the tasks discussed previously, the NSFG interviewer training program had three parts: home study, general interviewer training, and NSFG project-specific training. Bilingual interviewers also completed an additional day of training in conducting the NSFG interview in Spanish. Interviewer training was held every year in June, with additional smaller training sessions held as needed. The agenda for a recent training session is shown as [Appendix VII](#).

For the continuous NSFG, much of the lecture material that had been presented in-person for Cycle 6 was moved to a DVD format to allow

interviewers to study it at home. Moving lecture content to the DVD allowed the in-person training time to be dedicated to hands-on practice with the questionnaire and with other tools for completing the work of an interviewer. Prior to coming to training, interviewers were required to watch the DVD about the NSFG and read the NSFG Interviewer Project Manual (the table of contents for the manual is shown as [Appendix VIII](#)).

Interviewers were required to complete a self-study exercise electronically, which was sent to the University of Michigan prior to training. This exercise was graded and returned to the interviewer when she arrived at training. Interviewers who had not interviewed before for the University of Michigan or at all were required to attend a 1½ day general interviewing techniques session where they were taught the fundamentals of good interviewing technique and how to use the core interviewing systems used by the University of Michigan–Blaise® for questionnaire administration and SurveyTrak for sample management. Interviewers were also taught how to complete administrative work as part of their employment (for example, completing electronic time and expense reports).

In NSFG project-specific training, interviewers were taught in a large-group setting with smaller break out groups for hands-on learning. (In 2006, the first year of continuous interviewing, this “large” group contained about 40 interviewers; the smaller groups ranged from 10 to 20. In 2007, the second year of fieldwork, the “large” group was only about 20, and the “small” group, about 10 trainees.)

In addition to the role of lead trainer, other trainers assisted by operating the data display and serving as a “runner” (someone who assists trainees during the training, helping them with any technical problems). Most of the in-person training consisted of hands-on practice in administering the questionnaire. This practice involved completing five “round-robin” scripted interviews (three female interviews and two male interviews), during which the large group was divided into two

smaller groups and interviewers took turns asking questions of a mock respondent. The first mock interview was a fairly simple case, but each interview after that was progressively longer and more complex. Trainees took turns asking questions, the trainer gave the responses from a prepared script (which included carefully planned learning objectives), and the trainees entered the responses into their computers.

The first day of project-specific training was devoted to learning how to use the electronic listing program. These lists were required to build the sample frame from which a random sample was drawn for the study.

The next 4 days were devoted to contacting and screening households, completing informed consent with respondents selected for the study, learning how to administer the questionnaires, and addressing respondent concerns.

NSFG staff from NCHS and senior ISR staff attended the training sessions to observe and to answer questions. Interviewers enjoyed hearing about the importance of the research done with the NSFG and the opportunity to ask the researchers substantive questions about how the data from the survey are used.

Addressing Respondent Concerns

During the morning of the last day of training, interviewers participated in a special workshop on “how to address concerns” that potential respondents may have about the study. The basic premise of the training, based on years of scientific research on survey response (36,37), is that potential respondents often have legitimate questions about someone who comes to their door asking for something. Since people coming to their door are often selling something or asking for money for a charity or help for a cause, those might include questions such as:

- Who are you and what do you want from me?
- Are you selling something?
- Do you want money from me?

Once it is understood that the interviewer is there for a study, respondents may have questions such as,

- How was I chosen? Why can't you interview my neighbor?
- What is the study about? Who is sponsoring it?
- Why is it important that I participate in it?
- Do I have to do it right now?

The purpose of this focused workshop was to review the most common kinds of questions and concerns that respondents have about surveys, learn to recognize them, and learn to give an appropriate response that answers the question. Interviewers received a workbook, "Encouraging Participation in the NSFG: A Handbook for Addressing Respondent Concerns," to use during the training program. The training course outlined the steps to encourage respondent participation, including preparing for the interaction, diagnosing the main concerns of the person, selecting an appropriate response, and quickly delivering relevant information.

The training program had several exercises that progressively built the interviewer's skills to meet the overall objective—successfully identifying the concern and addressing it quickly and accurately. There were written exercises, as well as extensive role plays that progressed from simple to complex but each taught the interviewers to identify the concern, pick an appropriate response, and deliver it promptly.

Certification interview

Passing certification was required in order to conduct interviews. The certification interview was conducted one-on-one with each trainee and duplicated many essential aspects of a real interview situation. A trainer, following a prepared script, played the part of a respondent for a trainee.

At the end of the certification interview, the trainer gave the trainee verbal feedback and completed the certification scoring sheet for ISR staff. The evaluation of the certification interview included:

- Explaining the study, selection process, and consent procedures
- Administering the Screener
- Addressing respondent questions
- Reading questions verbatim
- Using study specific and general interviewing probes correctly
- Providing feedback to the respondent
- Using the interview aids correctly (Q×Qs, Show Cards, Pill Chart, Life History Calendar, Clinic database)
- Explaining and setting up the ACASI for the respondent

Depending on the certification scores, the interviewers were either released to begin work on sample cases or required to study and complete another certification interview. Regardless of her score, if the interviewer did not correctly complete the informed consent process, she was required to redo that portion of certification before she was released to work sample cases.

After being certified in English, bilingual interviewers attended the bilingual training session. During this session, the interviewers reviewed and practiced using the Spanish version of the respondent materials and the CAPI questionnaires. The bilingual training was conducted by training staff fluent in both Spanish and English. Once these trainees returned home, they completed a certification interview in Spanish over the telephone.

Interviewer Materials

Manual

The manual describing the details of the NSFG data collection procedures is used by field staff in training and as a reference during field work. The *National Survey of Family Growth Project Manual* was sent to each interviewer trainee approximately 2 weeks before training, along with a study-specific training DVD and home-study questions, which the trainees were asked to complete on-line prior to training.

The NSFG Project Manual covered:

- NSFG project design

- Background of the NSFG project
- NSFG sample design and sampling procedures
- Computer equipment and software used for the survey
- Procedures for contacting sampled households, requesting cooperation, screening sampled households, and obtaining consent for the survey
- An overview of the questionnaire and how to administer it
- Quality control measures
- Project administrative procedures

Along with the Project Manual, the interviewers received manuals explaining how to conduct listing (of households within selected segments) and how to use SurveyTrak, the sample management software used for the survey. The field supervisors also received a manual and training on WebTrak, the production monitoring software used for the survey.

Materials used for listing housing units and contacting selected households and respondents

During the listing process, maps of the selected blocks and the surrounding areas were accessed and notated electronically in SurveyTrak. Once complete, the listings and notated maps were also available for interviewer reference during screening and main interviewing.

Before the interviewers attempted to contact the sample households, advance letters ([Appendix II](#)) and Question-and-Answer brochures ([Appendix IV](#)) were mailed. This mailing was done from the contractor's office at the time the sample was initially released to the field. The letter introduced the study to the household and informed them that an interviewer would be contacting them soon.

After households were selected, interviewers attempted to make contact and conduct a screening interview to determine whether any household members were eligible to participate in the main interview. Interviewers were provided with copies of the Household Advance Letter and Question-and-Answer brochures to show to

householders in case they did not receive or did not remember receiving them.

Materials used for requesting participation in the survey

Several items were used to help request the participation of members of the sample household. The Household Advance Letter was used to make initial contact with residents and to gain cooperation. Once a respondent had been selected to complete the survey, a Respondent Advance Letter ([Appendix II](#)) was provided to the selected respondent. It resembled the Household Advance Letter, but provided more information about the main interview.

Another set of letters was available to address various concerns raised by household members or respondents during the initial contacts by the interviewer. The concerns addressed in the letters were: being too busy, feeling the interview was too personal, not being interested in the survey, and being generally reluctant to participate. There were also letters designed for household members who were difficult to find at home, for parents or guardians who were reluctant to give consent for their child, and for managers of locked buildings. These letters were sent from the contractor's office upon request of the interviewers.

Interviewers were provided with several other types of materials: a picture identification badge, a letter of authorization verifying the interviewer's position as an NSFG interviewer; a Confidentiality Brochure ([Appendix IV](#)) developed for interviewers to use at the doorstep if a household member or respondent was concerned about confidentiality, and the NSFG Family Facts Sheet ([Appendix VI](#)), to illustrate how NSFG data are used and reported.

In addition to the questionnaire translation, all other NSFG respondent materials were translated into Spanish. Because no information about the households existed ahead of time, the Advance Household and Respondent Letters were double-sided, with an English version on one side and Spanish translation on the other. Other materials

were prepared in separate English and Spanish versions. All interviewers received both English and Spanish respondent materials and interviewers who did not speak Spanish also made use of a Spanish Phrase Card and a card in Spanish left with Spanish-speaking households.

Computer hardware and related supplies

The computers used in the NSFG in 2006–2008 were Fujitsu Lifebook tablet computers. The related computer supplies included an AC adaptor, an AC car adaptor, an extra laptop battery, and headphones for use during the ACASI portion of the questionnaire. Staff members were provided with a convertible bump case to facilitate use of the computer in tablet mode, a locking laptop case, printers, and shredders for secure disposal of any paper materials bearing confidential information.

Materials used to administer the interview

Both the female and male questionnaires had several interview aids used to assist with the administration of the questionnaires.

Show Cards—Some questions had many answer choices, so it could be hard for a respondent to remember all of them. To help the respondent, some sets of response choices were printed in a Show Card Booklet. This booklet contained response categories for both male and female questionnaires. A Spanish version of the booklet was printed separately. Each page, called a “Show Card,” had one set of answers on it. Being able to refer to a response by a letter or number instead of reading the phrase may reduce sensitivity, because it avoids the need to say the response aloud.

Question-by-Question Instructions—On certain questions in the questionnaires (both male and female), help screens were available. These question-by-question instructions gave definitions, further probing instructions and coding instructions to the interviewer in situations when the

question may otherwise be difficult for some respondents to understand.

Life History Calendar—Used in the female interview only, the Life History Calendar helped the respondent answer questions asking for dates of events and to record other details, usually about the recent past. For example, the respondent was asked to write something on the calendar to show contraceptive methods she used recently, dates of marriages, cohabiting unions, births and other pregnancies, and first sexual intercourse. Early in the questionnaire, the interviewer described the purpose of the calendar. During the interview, the respondent was reminded to refer to the calendar to help her recall important dates of events and then to mark those dates on the calendar. The calendar was available in both English and Spanish.

Pill Chart—Used with the female questionnaire only, this poster showed pictures of some currently available oral contraceptive pills in order to help the female respondent identify the type of pill she had used (if she reported that she was a current or recent user of oral contraceptive pills).

Supervision

The field organization for the continuous NSFG at any one point consisted of about 35–40 interviewers, overseen by two field supervisors and a production manager. The field supervisors guided and supported the interviewers and helped them meet the quality and production goals established for the NSFG. The supervisors specific duties included monitoring daily production, effort, and costs for each of the interviewers on their team; helping interviewers develop effective techniques for requesting cooperation from respondents; managing the distribution of the workload for their team; evaluating interviewers to ensure they are following study protocols; and providing feedback to interviewers about the quality of their work.

Supervisors held weekly conference calls with their teams to discuss progress on the sample and problems the interviewers were facing, to review protocols and procedures, and to disseminate information from ISR about

the study. The supervisors were always available by telephone or email to provide advice or resolve issues the interviewers were facing.

The field staff members were supported by an electronic sample management system called “SurveyTrak.” This system tracked the status of each sample case from its release to the field through its completion as a final interview or other final result code. SurveyTrak resided on the interviewer laptops and organized their sample assignment. For each sample household, SurveyTrak stored and displayed data on the day, time, and outcome of each call attempt, reminder notes to the interviewer about the call attempt, and appointment day and time. If the interviewer talked to someone, she entered any questions asked, or comments made, by the household member she talked to. Sample segment information relevant to processing the case was also stored in SurveyTrak. The software was interactive, so she could update it to record her contact attempts at the sampled households and to make general notes about the cases. Active cases could be sorted by interim disposition codes, so the interviewer could organize her workdays. At least once a day, the interviewer performed an electronic communication to send her most recent work to the contractor’s office.

The National Survey of Family Growth Fieldwork and Responsive Design

The NSFG contractor, in consultation with NCHS, required interviewers to record simple characteristics of neighborhoods (sample segments), sampled households, and things that respondents said during attempts to contact them to request an interview. The contractor collected and analyzed these data during fieldwork to help decide how to manage interviewer resources during each quarter. These

observations were examined daily during the quarter in search of imbalances in the respondent pool on correlates of the key survey variables. During the first 10 weeks of each quarter, various interventions were attempted—for example, to place more callback emphasis on cases in subgroups that are underrepresented in the respondent pool. These variables were also used to stratify and assign probabilities of selection to the second phase sample approached in the last 2 weeks of each quarter.

This approach is called a “responsive design” (12,17). By way of definition, responsive survey designs:

- A. Pre-identify a set of design features potentially affecting costs and errors of survey estimates
- B. Identify a set of indicators of the cost and error properties of those features and monitor those indicators in initial phases of data collection
- C. Alter the features of the survey in subsequent phases based on cost-error trade-off decision rules
- D. Combine data from the separate design phases into a single estimator.

Such design features are attractive for the NSFG because they help manage the uncertainty of some of the key determinants of the number of completed interviews: occupancy rates for sample units, eligibility rates for sample units, and nonresponse likelihood for different sample persons.

Paradata Used in the National Survey of Family Growth

Observational data were collected by interviewers at various points during the survey administration. These data are called “paradata” or “process data,” and they were used in design decisions throughout data collection. Collection of paradata began at the listing stage and continued through the last call on each sample line. The data include:

Segment observations

- A. Does the structure appear to be abandoned or unoccupied?
- B. Extent of commercial, church, school, and other nonresidential use in the neighborhood
- C. Physical access impediments (for example, locked buildings)
- D. Evidence of non-English speakers in the neighborhood (signs, businesses)
- E. Evidence of safety concerns for the interviewer

Housing unit observations

- A. Access impediments to the unit (for example, locked entrance, doorkeeper)
- B. Number of housing units in the structure
- C. Observation of children under 15 years of age living in the household
- D. Observation of whether people living in the household are 45 years of age or older

Observations on each call to the unit

- A. Time of day
- B. Day of the week
- C. Outcome of call
- D. Mode of contact

Observations on each call yielding a contact with a household member

- A. Whether the householder asked a question (for example, “How did you choose my house?”)
- B. Whether the householder made any comments related to certain topics such as time or burden, confidentiality, or personal or sensitive questions.

Eligibility observation before the screening interview

- A. Whether there are children under 15, cohabiting or married man and woman, both, or neither.

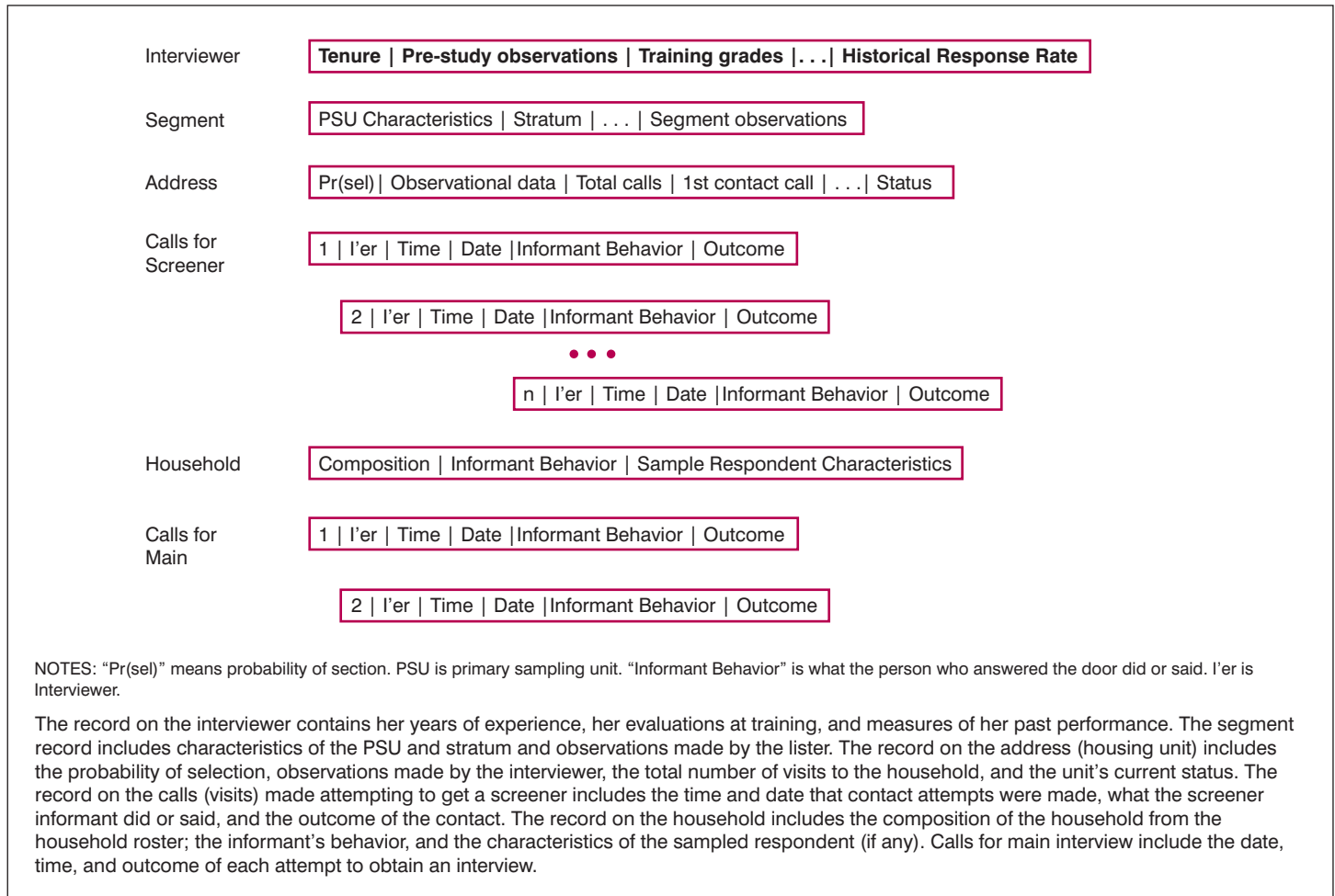


Figure 8. Data Structure for National Survey of Family Growth Paradata

Marital and cohabiting status observation after the screening interview

- A. Whether the interviewer believes the selected respondent is married to or cohabiting with an opposite-sex partner.

Observations for each interviewer day

- A. Number of hours spent traveling to the segment
- B. Number of hours spent on administrative activities
- C. Number of hours spent on listing activities
- D. Number of hours spent attempting screening interviews
- E. Number of hours spent attempting main interviews

Each of these data items was designed based on prior studies

indicating their relationship to the respondent's propensity to complete the interview. These data were organized as shown in Figure 8.

Interviewers are the highest level of aggregation; the sample segment paradata form the second level; the housing unit is the third level; records on each contact attempt (or "call" or "visit") form the lowest level of the paradata structure. Paradata exist for the screening stage and the main interview stage of the interviewing. Needless to say, the paradata files can become quite complex. However, as Figure 8 implies, statistical analysis on the data can answer questions like, "What calling pattern on screener interviews predicts the need to make more callbacks to obtain the main interview?" or, "What interviewers achieve more efficient interview production with different kinds of sample persons?"

Tracking of Response Propensities in Phase 1 (first 10 weeks of each quarter)

A key set of observations were monitored each day of the survey and formed the basis of a management tool called the NSFG Dashboard (Figure 9).

As implied in the dashboard, the continuous NSFG used a simple data collection production model, whereby the final production of interview records is a function of **effort** applied to a set of raw materials—in this case, the sample housing units of the NSFG quarterly sample ("Active Sample"). The cases that were most easily contacted and most interested in participating in the interview were measured earliest. As the 10-week period proceeded, the remaining active cases were ones whose residents were rarely at home or whose

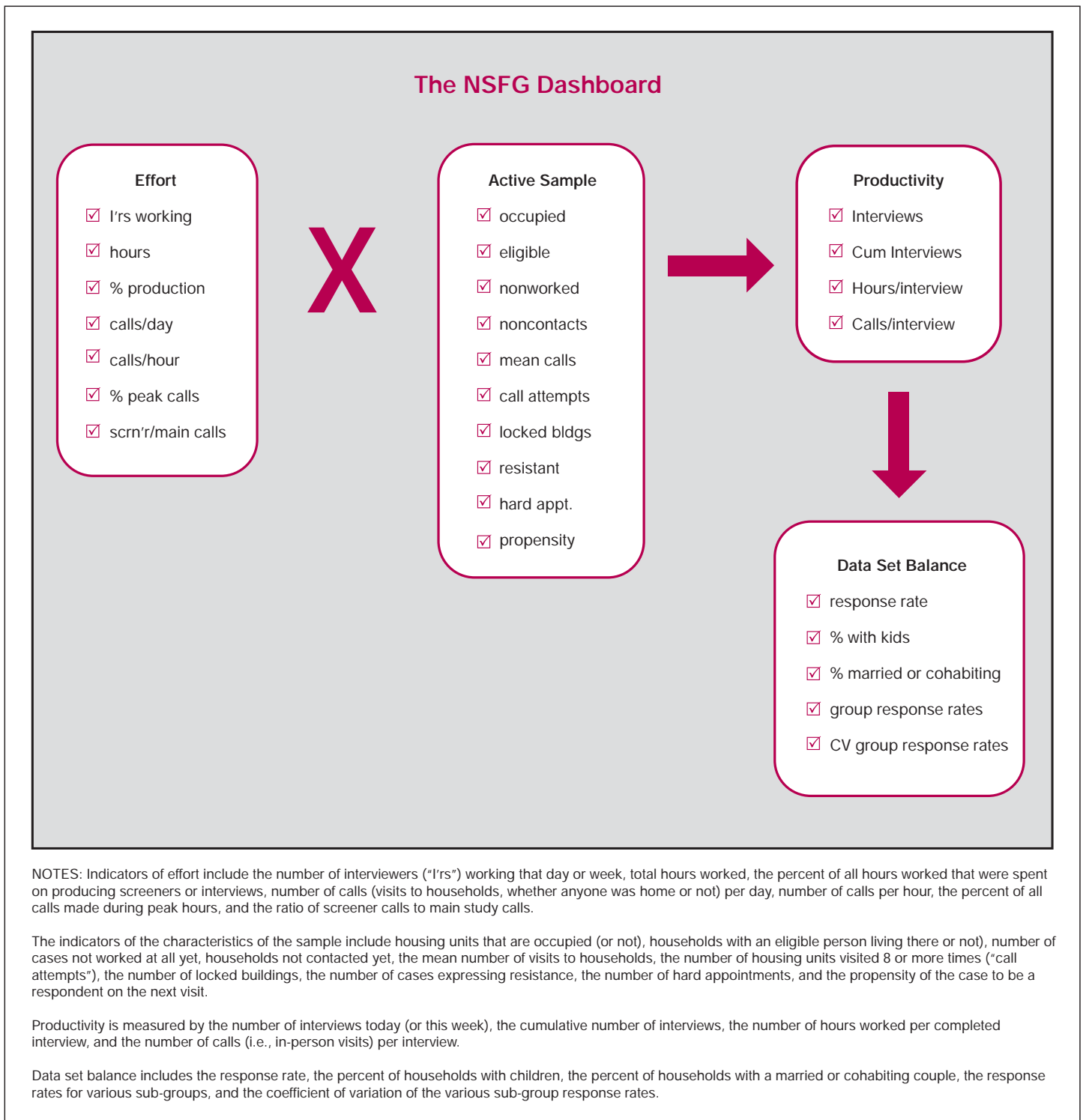


Figure 9. The National Survey of Family Growth Dashboard for Paradata Indicators

lives leave them only rare moments to participate in the survey. Thus, the amount of effort needed to obtain one interview (in numbers of contact attempts) increases over the days of the period. A key management challenge has been to direct those efforts over time to achieve a respondent pool that

represents the full target population as well as possible within budget constraints.

Each evening after midnight, the contractor reran computer programs to refit two propensity models to the entire calendar quarter's sample. One model predicted the likelihood that a case not

yet providing a screener interview would do so on the next call. Another model predicted the likelihood that a sample person not yet providing a main interview would do so on the next call. Expected values for each active case, given the model, were computed each day during the data collection period.

The expected values were summed over all cases within a sample segment (weighting the screener model expected values by the expected eligibility of the households).

Based on the propensity models and selection weight values, a subsample of active cases (both cases yet to be screened and sample persons yet to give a main interview) was chosen. The specific sample designs of each quarter vary slightly.

After working the sample for 10 weeks and visiting each remaining nonresponding household an average of eight times, Phase 2 was implemented for weeks 11 and 12 of each 12-week quarter. With the support of the NCHS IRB and OMB, the Phase 2 recruitment protocol had the following components:

- A. A subsample of the remaining incomplete cases was selected for further fieldwork.
- B. Increased use of proxy informants for the screening interview was allowed.
- C. A prepaid \$5 incentive (versus no incentive) was used for cases that had not yet completed the screening interview.
- D. A prepaid \$40 incentive for the main interview (versus a \$40 incentive provided after the informed consent was signed).
- E. A promised additional \$40 incentive at the time of the main interview.

Phase 2 was limited to a 2-week period, with most attention given to main interview cases. Thus, there were four 12-week data collection periods each year, with a 10-week “Phase 1” protocol and a 2-week “Phase 2” protocol. As experience was accumulated over these 12-week quarters, the survey management techniques were refined.

Data Collection Quality Control

Production Review Interviews

Production Review Interviews were conducted with each field interviewer several times throughout data collection. These Production Review Interviews were similar to the certification interview done at the end of training except that they were done over the phone and used different prepared scripts. Production Review Interviews were conducted by the field quality control coordinator. After a Production Review Interview, the quality control coordinator gave oral feedback to the interviewer and sent a copy of her evaluation to the interviewer, the interviewer’s supervisor, and the contractor’s home office. If the interviewer did not pass the Production Review Interview, she was instructed to stop fieldwork until she had reviewed the problem areas with her supervisor, practiced her skills, and passed a new Production Review Interview.

Verification

As a quality control measure, a sample of the completed interviews and screeners were routinely called back. Occasionally, during these calls, a person did not recall being contacted, or reported some other information that contradicted the information collected. Whenever a situation was discovered that appeared to involve possible falsification by the interviewer, the supervisor and production manager were contacted immediately. If they confirmed that there appeared to be a problem, the interviewer was instructed to stop working her sample immediately. Additional cases for that interviewer were flagged for verification calls. If, based on these additional calls and further investigation into the original case, the supervisor and production manager determined that there was no falsification, the interviewer was allowed to resume working her sample.

If further evidence of falsification was found, or if there was a high level of nonresponse in verification, all sample lines (all selected households) finalized by the interviewer were verified. If any case confirmed interviewer falsification, the interviewer was terminated immediately. If an interviewer was terminated, all of her completed interviews and age-ineligible households had to be verified. The cases that did not pass verification or had not been verified by telephone were sent to another interviewer in the field to be verified.

Interviewer Comments on Individual Questions

Sometimes during the course of an interview, issues may arise that create a problem or raise a question for the interviewer. Using a preprogrammed key [F2], interviewers could immediately make a note about the issue within the questionnaire. There were several different reasons why interviewers recorded F2 comments:

- The interviewer or respondent made a self-assessed error and the interviewer needed to provide an explanation of what should have been done.
- The questionnaire program did not seem to permit the interviewer to record the answer given by the respondent (for example, the response categories did not seem to fit the meaning of the respondent’s answer).
- The response was coded, but there was an important qualification to the response that was worth noting.

The content of these “F2 comments” from completed interviews was reviewed periodically, summarized and evaluated for evidence of application errors or human-computer interface weaknesses. In some cases, this information triggered fixes in the computer application itself; in other cases the information in the comments was used later to make decisions about remedial training and/or data editing. In addition to providing insight into the problems of individual interviews or

interviewers, the comments can be helpful in making improvements to the questionnaire in the next year of the NSFG.

Interviewer Documentation on Respondent Reactions to Interview

Interviewers completed a set of observations about the interview while respondents were completing the ACASI portion of the interview. The task of completing the observations on paper helped to provide an atmosphere of privacy by giving the interviewer something to stay busy with while the respondent completed ACASI. The observation questions were used to describe the interview situation and to assess its quality.

In general, two types of questions were asked:

1. Factual questions about the environment in which the interview was conducted and the use of interview aids during the interview (for example, where the interview was conducted and to what extent the headphones were used by the respondent during ACASI).
2. Questions asking the interviewer for her perceptions about the interview interaction (for example, what was the interviewer's perception of the quality of the information provided by the respondent).

Response Rate Tracking and Respondent Pool Balance

As implied by the structure of the NSFG Dashboard, the data collection management team monitored whether respondents and nonrespondents to the main interview resemble one another on a set of auxiliary variables that are correlates of key NSFG survey variables. These included observations of whether there are any children in the household, whether the sample person is judged to be in a marriage or cohabiting relationship, and a set of screener variables (for example, age, gender, and race and ethnicity). Throughout Phase 1

(the first 10 weeks) of the 12-week calendar quarter data collection, when large imbalances between respondents and nonrespondents appeared on these auxiliary variables, randomized interventions were conducted on subsamples of the groups then underrepresented in the respondent pool, in order to achieve greater balance on these variables in the resulting data.

Preparing Public-Use Data Files

The continuous interviewing environment allowed project staff to perform initial data processing and documentation tasks at the beginning stages of data collection. Modifications to these procedures were made as experience with the data was accumulated, and as the data collection instruments changed.

Data File Creation

Every month, the contractor's project staff produced initial versions of the full male and female data files directly from the Blaise® data models. These files included all responses captured through the main sections of each questionnaire, the computed variables, and answers provided by each respondent during the ACASI portion of the instrument. In addition to the respondent files for males and females, a female pregnancy file was also produced with each record representing a pregnancy reported by a female respondent.

NCHS provided specifications to create about 600 recoded variables. "Recoded variables" are high-priority variables, often based on several different questions in the questionnaire, that are used frequently by NCHS staff and other data users. Specifications for these recoded variables were converted into SAS programming code and discrepancies were resolved before merging the completed recode variables into the main data files. Upon completion of the recode process, cases with missing data on that recode were imputed for each release of a public-use

file. An imputation flag accompanies each recode. Special post-data-collection programs created new variables, including a roster of a male respondent's biological children in chronological order; also, some variables were collapsed or re-categorized to reduce the risk of disclosure.

Overview of Item Imputation

In any survey, not every question is answered by every person interviewed. Sometimes a respondent cannot remember a fact asked for in a question; sometimes he or she refuses to answer. Other times, the answer that the respondent gives is clearly inconsistent with other information in the interview; one or more of the inconsistent answers is then set to "missing." Such "missing data" create inconsistencies in estimates, which may be confusing for many users of the data. Assigning predicted values to these missing items is called "imputation."

Imputation has several advantages. It makes the data more complete and consistent and therefore easier to use, eliminating the sometimes confusing decreases in sample size when cases with missing values are dropped from an analysis. It also allows all of the collected data to be used in analysis. In an analysis involving several different variables simultaneously, entire cases may be dropped because they are missing values for one variable, even though there are reported values for the other variables for the case. The analyst thus discards collected data by deleting cases with item missing values.

Discarding cases with missing values implicitly assigns a value to the missing items. Effectively, discarding cases assigns the average of the nonmissing values to each of the missing values. Imputation is a procedure that attempts to improve on this assignment by assigning a replacement value for each item missing value that is a prediction from other variables, and not just an average of the same variable from cases without missing values.

There are thousands of variables in the continuous NSFG data files. Of these, approximately 600 recoded variables (called “recodes”) were selected for imputation because they have been used frequently in analysis. Selecting, editing, and imputing this more limited set of variables is a way to ensure high-quality data for the most important variables without delaying the release of the data file.

The frequency of missing values for the recoded variables in the continuous data set was low, as in the 2002 data file—in part because CAPI requires the interviewer to enter an acceptable response and then goes automatically to the next appropriate question. The CAPI program performed range and consistency checks to help prevent logically impossible answers. An estimated 1–2 percent of the values of all recoded variables, in male, female, and pregnancy files combined, were missing and subsequently imputed.

The two imputation techniques used in the continuous NSFG were:

1. Logical imputation
2. Regression imputation

Logical imputation involves having a subject matter expert (usually at NCHS) look at a missing value, examine related variables, and assign a value to the missing value that is essentially an educated prediction of the true value. **Regression** imputation uses software that imputes a missing value using potentially all other variables in the data set as predictors.

A major part of the work of imputation involves making certain that the values imputed are within acceptable ranges and are consistent with other data reported by the respondent. Except when a reported value is obviously incorrect, actual reported data are never replaced by an imputed value. For each recoded variable in the database, an imputation flag identifies whether the value of that variable is imputed or not. Using the imputation flag, a researcher can identify the observations with an imputed value and the specific type of imputation procedure used for each specific recoded variable. For more information on imputation, see references 16 and 18.

Structure of the Data Files

In the following text, “raw variables” are those based on questions asked in the questionnaire; “computed variables” are variables defined within the questionnaire program to facilitate routing through the instrument. Many “computed variables” prove useful for analysis or for the construction of recodes, and are therefore included on the public use files. The basic layout of the data files is as follows:

Female respondent file

- Respondent ID
- Screener variables including screener date
- Raw and computed variables
- Recodes and imputation flags
- Recodes computed from pregnancy interval file
- Weights and related variables
- Date of interview and related variables

Female pregnancy interval file

- Respondent ID
- Pregnancy order
- Raw and computed variables from female sections B and E
- Recodes from female sections B and E
- Respondent characteristics from the female respondent file
- Imputation flags
- Weights and related variables
- Date of interview and related variables

Male respondent File

- Respondent ID
- Screener variables including screener date
- Raw and computed variables
- Chronologically arranged biological child variables
- Recodes and imputation flags
- Weights and related variables
- Date of interview and related variables

Data File Documentation

Public-use file documentation is available to researchers in two forms:

1. As a Web-based tool to permit easy access to all variables, quick navigation between different sections of the instrument and the capability to search for key concepts and questions (see <http://www.cdc.gov/nchs/nsfg.htm>.)
2. As a PDF file on the NSFG web site.

As part of the documentation package, both forms of the documentation are accompanied by a User’s Guide that provides detailed information on the conduct of the survey and on such topics as recoding, imputation, data quality, sample design, estimation procedures, and variance estimation. Full specifications for each recoded variable are also provided. The User’s Guide is provided as a supplementary part of the documentation but is directly linked and accessible through the online documentation system.

In addition to the codebooks and the User’s Guide, the documentation includes the questionnaires, which are also provided to researchers in two forms: the CAPI-Lite, which is intended to be readable, and resemble a paper-and-pencil-questionnaire; and a CAPI Reference Questionnaire or CRQ, which is the full record of all specifications transmitted to the questionnaire programmer.

Using the National Survey of Family Growth Data from Continuous Interviewing

The data from the continuous NSFG come from a complex sample design. Noncoverage and nonresponse affect how analysis must be conducted on the respondent data. To facilitate analysis, the NSFG data are made compatible with several data file formats, for software systems that permit the use of case weights and properly reflect complex sample design in estimating standard errors (for example, SAS,

SPSS, Stata). Each data release will provide details on how to use that specific data set and how to use the pooled continuous interviewing data set.

Analyzing Continuous Interviewing Data

The first six cycles of NSFG were collected over a series of months and represented the U.S. target populations appropriate to those time periods. Between the cycles there was no data collection at all. In one sense, the continuous interviewing design is similar. It has small national samples that represent the target populations of the United States during any given year.

The difference between Cycles 1–6 and continuous interviewing is that:

1. Estimates can be made for different time periods.
2. The overall sample design is the same over time.

First, consider the different time periods for which estimates can be made. The respondent data from continuous interviewing are released in separate data sets that combine consecutive quarters of data (for example, the first is the period July 2006–December 2008, or approximately 2.5 years). Separate weights are provided to analysts to combine different time periods of data across the different releases.

For example, imagine an analyst wants to estimate quantities using a variable that was in the NSFG in 2006–2008 (30 months) and another variable that was first asked in mid-2007–December 2008 (18 months). With the first variable, there are 30 months of data and about 13,000 interviews; with the second variable, there are 18 months of data and about 8,000 interviews. But in both cases the size of the U.S. population 15–44 years of age is about 120 million. Different weights will have to be used to produce estimates for those two interviewing periods. It is important for analysts to use the weights that are appropriate to the time period of interest. Erroneous results will be obtained when incorrect weights are used.

The second difference between continuous interviewing and prior cycles of NSFG is that comparisons over time have the advantage of being made within the same sample design. If an analyst wanted to compare two different data releases of the NSFG, the standard errors of estimates of change across time will tend to be lower than if the two time periods had independent samples. The analyst must use the correct variance estimation procedures to reflect the sample design, but this is built into the sampling error computing unit coding. If the analyst ignores the sample design and treats the data as if they came from a simple random sample, erroneous results will be obtained.

Each data set released will have more details on how to analyze data from it, how to combine it and contrast it with previously released NSFG data, both within the continuous design and outside it.

References

1. Freedman R, Whelpton PK, Campbell AA. Family planning sterility and population growth. New York: McGraw-Hill. 1959.
2. Whelpton PK, Campbell AA, Patterson JE. Fertility and family planning in the United States. Princeton, NJ: Princeton University Press. 1966.
3. Ryder NB, Westoff, CF. Reproduction in the United States, 1965. Princeton, NJ: Princeton University Press. 1971.
4. Westoff CF, Ryder NB. The Contraceptive revolution. Princeton, NJ: Princeton University Press. 1977.
5. Westoff CF. The yield of the imperfect: The national fertility study. *Demography* 12(4):573–80. 1975.
6. Mosher WD. Fertility and family planning in the 1970s: The National Survey of Family Growth. *Fam Plann Perspect* 14(6):314–20. 1982.
7. Mosher WD. Fertility and family planning in the United States: Insights from the National Survey of Family Growth. *Fam Plann Perspect* 20(5):207–17. 1988.
8. Mosher WD, Bachrach CA. Understanding U.S. fertility: Continuity and change in the National Survey of Family Growth, 1988–95. *Fam Plann Perspect* 28(1):4–12. 1996.
9. Mosher WD. Design and operation of the 1995 National Survey of Family Growth. *Fam Plann Perspect* 30(1):43–46. 1988.
10. Kelly JE, Mosher WD, Duffer AP, Kinsey SH. Plan and operation of the 1995 National Survey of Family Growth. National Center for Health Statistics. *Vital Health Stat* 1(36). 1997.
11. Mosher WD, Deang L, Bramlett MD. Community environment and women's health outcomes: Contextual data. National Center for Health Statistics. *Vital Health Stat* 23(23). 2003.
12. Groves RM, Benson G, Mosher WD, et al. Plan and operation of cycle 6 of the National Survey of Family Growth. National Center for Health Statistics. *Vital Health Stat* 1(42). 2005.
13. De Leeuw E, De Heer W. Trends in household survey nonresponse: A longitudinal and international comparison. In: Groves R, Dillman DD, Eltinge J, Little R eds. *Survey nonresponse*, 41–54. New York: John Wiley and Sons. 2002.
14. Krosnick JA. Response rates, Huffington, and more: Reflections on the 58th annual conference. AAPOR News, American Association for Public Opinion Research. 2003.
15. Mosher WD, Pratt WF, Duffer AP. CAPI, event histories, and incentives in the NSFG cycle 5 pretest. In: American Statistical Association, ed. *Proceedings of the section on survey research methods*, 59–63. 1994.
16. Lepkowski JM, Mosher WD, Davis KE, Groves RM, van Hoewyk J, Willem J. National Survey of Family Growth, Cycle 6: Sample design, weighting, imputation, and variance estimation. National Center for Health Statistics. *Vital Health Stat* 2(142). 2006.
17. Groves RM, Heeringa SG. Responsive design for household surveys: Tools for actively controlling survey errors and costs. *J Royal Stat Soc A* 169, Part 3:439–57. 2006.
18. Lepkowski JM, Mosher WD, Davis KE, et al. Continuous National Survey of Family Growth: New concepts for sample design and analysis. National Center for Health Statistics. *Vital Health Stat*. Forthcoming.
19. Therrien M Ramirez R. The Hispanic population in the United States: March 2000. U.S. Census Bureau, Current Population Reports, Series P20–535. Washington, DC: U.S. Government Printing Office. 2001.

20. Shin H, Bruno R. Language use and English-speaking ability: 2000. Census 2000 Brief, Series C2KBR-29. U.S. Census Bureau, Washington, DC. 2003.
21. Martinez GM, Marin BV, Schoua-Glusberg A. Translating from English to Spanish: The 2002 National Survey of Family Growth. *Hispanic J Behavioral Sciences* 28(4): 531–45. 2006.
22. Harkness JA, Pennell BE, Schoua-Glusberg A. Survey questionnaire translation and assessment. In: Presser S, Rothgeb JM, Couper MP, et al., eds. *Methods for testing and evaluating survey questionnaires*. New York: John Wiley and Sons. 2004.
23. Harkness JA. Questionnaire translation. In: Harkness J, Vijver F, Mohler P, eds, *Cross cultural survey methods* 35–56. New York: John Wiley. 2003.
24. Hinsdale M. Spanish translation issues related to the development of computer assisted interviewing instruments: National Household Survey on Drug Abuse. Paper presented at the Annual Meeting of the American Association for Public Opinion Research, Montreal, Quebec, Canada. 2001.
25. Chandra A, et al. Fertility, family planning, and reproductive health of U.S. Women: Data from the 2002 National Survey of Family Growth. *National Center for Health Statistics. Vital Health Stat* 23(25). 2005.
26. Mosher WD, et al. Use of contraception and use of family planning services in the United States, 1982–2002. Advance data from vital and health statistics; no. 350. Hyattsville, Maryland: National Center for Health Statistics. 2004.
27. Martinez GM, et al. Fertility, contraception, and fatherhood: Data on men and women from the 2002 National Survey of Family Growth. *National Center for Health Statistics. Vital Health Stat* 23(26). 2006.
28. Abma JC, et al. Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2002. *National Center for Health Statistics. Vital Health Stat* 23(24). 2004.
29. Mosher WD, Chandra A, Jones J. Sexual behavior and selected health measures: Men and women 15–44 years of age in the United States, 2002. Advance data from vital and health statistics; no. 362. Hyattsville, Maryland: National Center for Health Statistics. 2005.
30. Anderson JE, Mosher WD, Chandra A. Measuring HIV risk in the U.S. Population aged 15–44: Results of the 2002 NSFG. Advance data from vital and health statistics; no. 377. Hyattsville, Maryland: National Center for Health Statistics. 2006.
31. Tanfer K, Billy JOG, Grady WR. Application of experience from the National Survey of Men to including Males in the National Survey of Family Growth. Battelle, Seattle, WA. 1998.
32. Jones J. Adoption experiences of women and men and demand for children to adopt by women 18–44 years of age in the United States, 2002. *National Center for Health Statistics. Vital Health Stat* 23(27). 2008.
33. Kost K, et al. Estimates of contraceptive failure from the 2002 National Survey of Family Growth. *Contraception* 77(1):10–21. 2008.
34. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspect on Sex and Reprod Health* 38(2):90–96. 2006.
35. Kalmuss D, Tatum C. Patterns of men's use of sexual and reproductive health services. *Perspect on Sex and Reprod Health* 39(2):74–81. 2007.
36. Groves RM, Couper MP. *Nonresponse in Household Interview Surveys*. New York: John Wiley and Sons. 1998.
37. Groves R, McGonagle K. A theory guided interviewer training protocol regarding survey participation. *J Official Statistics* 17(2):249–62. 2001.

Appendix I. Glossary

Audio computer-assisted self-interviewing (ACASI)—An interviewing technique in which respondents read questions on a computer screen while using headphones to listen to the questions being read. Respondents then enter their own responses. Using ACASI prevents anyone else from hearing the survey questions or the respondent's answers to the questions, ensuring greater privacy. Both the female and male questionnaires of the NSFG include ACASI sections.

Blaise®—The software program or language that is used to create the NSFG questionnaire.

Computer-assisted interview (CAI)—An interviewing technique in which the questionnaire is programmed and administered using a computer.

Computer-assisted personal interview (CAPI)—An interviewing technique in which the questionnaire is programmed into a computer and administered by an interviewer using a computer, in a face-to-face interview.

Contact observations—A feature in SurveyTrak that prompts the interviewer to answer certain questions about the nature of each contact with the respondent or informant. This information can be used to tailor future interactions, for methodological research, and to help manage the costs of the study.

Continuous interviewing—NSFG's planned work model for the NSFG calls for ongoing collection of data over a 4-year period. For fieldwork, sample is released for 12 weeks at a time, 4 times a year.

Double sample—At the end of the first 10 weeks of interviewing in a 12-week data collection period, some of the remaining nonrespondent cases are selected at random to receive 2 more weeks of field effort. These selected (sampled) cases are referred to as the "double sample" because they are a sample of the original sample. The final 2 weeks of each 12-week quarter are devoted to working the double sample.

Edit checks—Consistency checks programmed into the NSFG questionnaire. Specifically, edit checks

ensure that the respondent has the opportunity to provide accurate information by prompting for clarification of answers that appear to be inconsistent.

Electronic signatures—To improve efficiency and accuracy, consent form signatures were captured electronically in the continuous NSFG using a tablet PC. After the respondent read the consent form, he or she signed an exact replica of the form directly on the tablet PC. The interviewer saved the form with the respondent's signature and it was transmitted electronically to the contractor's headquarters.

Household (HH)—A general term encompassing both the housing unit and the household members.

Household members—Persons who usually live in the household. "Usually live" means that the person eats and sleeps in the household most of the time and considers it his/her permanent residence. The NSFG has specific protocols for identifying household members who live in a dormitory, sorority, or fraternity.

Household roster or household listing (HHL)—The list of all members living in a housing unit on a regular basis, or who consider that address to be their permanent residence.

Housing unit (HU)—A discrete residence (typically a single-family house, apartment, or condominium) defined by two general criteria: the fact that the living quarters are used separately by their occupants and by certain physical characteristics of those quarters (for example, existence of cooking facilities).

Informant (INF)—An adult household member who completes the screening interview (screener). The informant may or may not be selected as the respondent.

Interview observation form—A paper questionnaire about the interview that the interviewer completed while the respondent was completing ACASI questions at the end of the questionnaire. The interviewer later entered her responses to the interview observation questions into Blaise®.

Life History Calendar (LHC)—A worksheet used by female respondents to help them remember and accurately

report events that took place over several time frames (during the past year, during the past 3 years, and in their lifetimes) by placing them in context with other events, such as births and marriage.

Listing—Recording a complete list of all housing units located within a segment boundary. A list is used to randomly select specific housing units to participate in the survey.

Institute for Social Research, University of Michigan—The Institute for Social Research (ISR) at the University of Michigan conducts the fieldwork and data processing for the continuous National Survey of Family Growth (NSFG) under a contract with NCHS. ISR has several centers that participated in the NSFG: the Survey Research Center provides overall coordination and is responsible for data collection, weighting, and variance estimation; the Interuniversity Consortium for Political and Social Research processes data and develops documentation and web based systems; and the Population Studies Center provides substantive expertise on demography and family growth.

Institutional Review Board (IRB)—A committee of peer and community reviewers of research procedures involving human subjects that weighs the benefits of the research relative to the risks of harm to human subjects. The NSFG was reviewed and approved by the NCHS IRB, which NCHS calls a "Research Ethics Review Board," or RERB.

Item imputation—The process of assigning answers to cases with missing data ("don't know," "refused," or "not ascertained.") In the NSFG, item imputation is only performed on approximately 600 "recoded variables," or "recodes" (defined below, under "recodes"), rather than all of the thousands of variables in the data set. The purposes of imputation are to make the data more complete, more consistent, easier to use, and, most importantly, to reduce bias caused by differential failure to respond. For nearly all of the recoded variables for which imputation is done in the continuous NSFG, less than 2% of the cases received an imputed value.

Main interview—An interview sought within sample households containing an eligible person. If the screening interview finds that the household contains one or more persons 15–44 years of age, a main interview is requested from one of those persons. If there are two or more persons 15–44 years of age, one such person is selected at random for the main interview.

National Center for Health Statistics (NCHS)—NCHS is the Nation’s principal health statistics agency. It designs, develops, and maintains a number of systems that produce data related to demographic and health concerns. These include data on registered births and deaths collected through the National Vital Statistics System; the National Health Interview Survey (NHIS), the National Health and Nutrition Examination Survey (NHANES), the National Health Care Survey, and the National Survey of Family Growth (NSFG), among others. NCHS has conducted the NSFG since 1973. NCHS is one of the “Centers” for Disease Control and Prevention (CDC), which is part of the U.S. Department of Health and Human Services.

Non-self-representing area—A primary sampling unit (PSU) selected into the NSFG sample through probability sampling methods whose population is not large enough that its chance of selection was assured. Such PSUs represent not only themselves, but also nonselected PSUs and are, thus, said to be non-self-representing.

Office of Management and Budget (OMB) Clearance—OMB reviews survey materials and questionnaires proposed for use by government agencies under the provisions of the Paperwork Reduction Act. The review is conducted by the OMB’s Office of Information and Regulatory Affairs.

Paradata—Information collected about the data collection process. In the NSFG, paradata may describe characteristics of the interviewer (such as how many hours she worked in a day), sample segment (such as whether the segment has nonresidential buildings), the sampled address (such as whether the address is in a locked building), interactions with sample household members (such as whether

the person asked a question about the survey), or characteristics of the interview situation (such as whether the interview occurred in the household or outside it). Paradata can be used to manage interviewer time, to manage or limit callbacks, to understand respondent concerns and questions about the survey, to record observations of characteristics of sample housing units (such as the presence of a locked building or other barrier to access); to model the probability of obtaining an interview on the next visit; and to select the double sample.

Pill chart—A chart showing most of the oral contraceptive pill brands currently on the market, used by female respondents to identify and recall names of the medications they use.

Primary sampling unit (PSU) or primary area—The first sampling unit of the NSFG’s multi-stage sample selection process. PSU’s are counties or large cities selected by chance, at random, with weighting based on population size.

Quarter—A 12-week period during which all listing, screening, and main interviewing activities are conducted for a particular set of sample cases.

Question-by-question objectives or Q x Qs or F1 help—Help available for certain interview questions providing a definition, coding instruction, or both. QxQ’s were available in hardcopy and electronically within the Blaise® instruments by pressing [F1].

Recruitment protocol—A set of procedures used in a survey that are specified by the survey designer. These procedures are used to contact, request cooperation from, and conduct interviews with sample households.

Respondent (R)—The eligible individual randomly selected from a sampled housing unit who is invited to complete an NSFG main interview.

Responsive design—Responsive survey designs identify a set of design features that could affect survey costs and errors of survey estimates; collect data (“paradata”) on those indicators in the initial stages of the data collection, and use the paradata to alter the features of the survey in later phases. These alterations are designed to control costs, improve response rates, and reduce bias

in the sample.

Screening interview—Sometimes called a “screener.” In the NSFG, the screening interview is a short set of questions that are asked of an adult in the household. The goal of the screener is to determine if there are one or more persons in the household who are eligible for the NSFG interview—that is, anyone 15–44 years of age, and if more than one, to select one person for the interview. Therefore, the NSFG screener collects the age, gender, and race and Hispanic origin of household members, because these are the factors that affect the probability that a household member will be selected for the sample.

Segment—The 2nd stage sampling unit of the NSFG containing small geographic areas within PSUs. Segments are made up of one or more census blocks; when necessary, blocks are grouped together so that the number of households will be at least as large as the minimum number defined by the sample design.

Segment observations—A series of questions interviewers answered about the characteristics of each segment they listed. Segment observations included any safety issues, languages spoken in the segment, structure types present, and the existence of access impediments such as locked buildings. Segment observations are completed within SurveyTrak software.

Self-representing area—A PSU that is automatically included in national probability samples due to its large population. Examples include New York City, Chicago, and Los Angeles.

Show card booklet—A bound reference booklet that included pages listing response categories associated with questions in the questionnaire. The respondent was asked to choose a response from those listed on a specified card. There were separate Show card booklets for the Female and Male questionnaires.

SurveyTrak (STrak or ST)—The electronic sample management system used to keep track of the progress and status of selected sample cases.

Appendix II. Advance Letters



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

From the Director of the National Center for Health Statistics:

My agency, part of the U. S. Department of Health and Human Services, needs your help. We are doing an important study called the National Survey of Family Growth. The study asks questions about marriage and divorce, having and raising children, health and health care. The information is used for health services and health education programs.

We are asking a scientific sample of households to take part in a short interview. We have asked the University of Michigan to do these interviews for us. In a few days, an interviewer will visit your home to complete the interview. The visit will only take about 5 minutes and any adult who lives in the home can answer. You may be asked to complete our main interview, which is described in the enclosed brochure.

Your help is voluntary but is very important. By Federal law*, the answers you give are confidential and we will take all possible steps to protect your privacy. Your answers will be used for research only.

We look forward to speaking with you soon.
I thank you for your help with this important study.

Sincerely,

/Edward J. Sondik, Ph.D./
Director, National Center for Health Statistics
<http://www.cdc.gov/nchs>

*To read about the law that protects your privacy, the Confidential Information Protection and Statistical Efficiency Act of 2002, visit the website <http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>. The other two laws that protect your privacy are Section 308(d) of the Public Health Service Act which allows us to carry out this survey (4 USC 242 M) and the Privacy Act of 1974 (5 USC 552a).



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Del Director del Centro Nacional para Estadísticas de Salud:

La agencia a mi cargo, que es parte del Departamento de Salud y Servicios Humanos de los Estados Unidos, necesita su ayuda.

Estamos haciendo un importante estudio llamado Encuesta Nacional de Crecimiento Familiar. El estudio incluye preguntas sobre matrimonio y divorcio, tener y criar hijos, salud y atención médica. La información que se obtiene es usada para programas que proporcionan servicios de salud y educación sobre salud.

Nos estamos dirigiendo a una muestra de hogares, seleccionada por métodos científicos, para pedirles que participen en una breve entrevista. Le hemos encargado a la Universidad de Michigan que haga las entrevistas. Dentro de pocos días, una entrevistadora irá a su hogar a completar la entrevista. La visita tomará solamente unos 5 minutos y cualquiera de los adultos que viven en su hogar puede responder. Es posible que les pidamos que completen nuestra entrevista principal que se describe en el folleto que le enviamos con esta carta.

Su participación es voluntaria pero es muy importante. De acuerdo con las leyes federales*, sus respuestas serán confidenciales y tomaremos todas las medidas posibles para proteger su privacidad. Sus respuestas sólo se usarán para fines del estudio.

Esperamos hablar pronto con usted.
Le agradezco su ayuda con este importante estudio.

Atentamente,

/Edward J. Sondik, Ph.D./
Director, Centro Nacional para Estadísticas de Salud
<http://www.cdc.gov/nchs>

*Para leer acerca de la ley que protege su privacidad, el Acta de Protección de la Información Confidencial y Eficiencia Estadística de 2002, visite la página: <http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>. Las otras dos leyes que protegen su privacidad son la Sección 308(d) del Acta del Servicio de Salud Pública que nos permite hacer esta encuesta (4 USC 242 M) y el Acta de Privacidad de 1974 (5 USC 552a).



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

From the Director of the National Center for Health Statistics:

We are pleased you were chosen to take part in the National Survey of Family Growth. This important study is being done by the National Center for Health Statistics of the United States Department of Health and Human Services.

We plan to speak to a national sample of households. The interview asks questions about marriage and divorce, having and raising children, health and health care. It lasts about 60-80 minutes. The information is used for health services and health education programs.

The highly respected University of Michigan will do the interviews.

Your help in this study is voluntary but very important. Saying yes or no to being in the study will not change any benefits you get now or in the future. The interview is interesting and enjoyable for most people. Each person interviewed represents thousands of others. Your interviewer will arrange to do the interview at the time that works best for you. For your help, you will receive \$40 as a token of appreciation.

By Federal law*, the answers you give are confidential and we will take all possible steps to protect your privacy. Your answers will be used for research only. We report the information in summary form. Individuals or families can not be identified. You may choose not to answer any question at any time. You may have questions about your rights as a participant in this research study. If so, please call the office of the Research Ethics Review Board at the National Center for Health Statistics, toll free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Study Number 2006-01. Your call will be returned as soon as possible.

The enclosed brochure will help to answer your questions about the study. You can also learn more at our website: www.cdc.gov/nchs/nsfg.htm. To schedule your interview, please call the University of Michigan (toll-free) at 1-800-759-7947.

I thank you for your help with this important study.

Sincerely,

/Edward J. Sondik, Ph.D./
Director, National Center for Health Statistics
<http://www.cdc.gov/nchs>

*To read about the law that protects your privacy, the Confidential Information Protection and Statistical Efficiency Act of 2002, visit the website <http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>. The other two laws that protect your privacy are Section 308(d) of the Public Health Service Act which allows us to carry out this survey (4 USC 242 M) and the Privacy Act of 1974 (5 USC 552a).



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Del Director del Centro Nacional para Estadísticas de Salud:

Nos complace que usted haya sido seleccionado(a) para participar en la Encuesta Nacional de Crecimiento Familiar. El Centro Nacional para Estadísticas de Salud, del Departamento de Salud y Servicios Humanos, está llevando a cabo este importante estudio.

Tenemos planeado hablar con una muestra nacional de hogares. La entrevista incluye preguntas sobre matrimonio y divorcio, tener y criar hijos, la salud y la atención médica. Toma alrededor de 60 a 80 minutos. La información que se obtiene es usada para programas que proporcionan servicios de salud y educación sobre salud.

Las entrevistas serán hechas por la Universidad de Michigan, una institución muy respetada.

Su ayuda en este estudio es voluntaria pero es muy importante. Su decisión de participar o no participar en la encuesta no afectará ningún beneficio que usted reciba, ahora o en el futuro. Para la mayoría de las personas, la encuesta es interesante y entretenida. Cada persona entrevistada representa a miles de otras. Su entrevistadora hará la entrevista en el horario que a usted más le convenga. Por su ayuda, usted recibirá \$40 como muestra de agradecimiento.

De acuerdo con las leyes federales*, sus respuestas serán confidenciales y tomaremos todas las medidas posibles para proteger su privacidad. Sus respuestas sólo se usarán para fines del estudio. La información se reporta en forma resumida. No se puede identificar a ningún individuo ni familia. Usted puede dejar sin contestar cualquier pregunta en cualquier momento. Tal vez usted tenga alguna pregunta sobre sus derechos como participante en este estudio. En tal caso, puede llamar a la Oficina de la Junta de Revisión de Ética en la Investigación, en el Centro Nacional para Estadísticas de la Salud, al teléfono gratuito, 1-800-223-8118. Por favor deje un mensaje breve con su nombre y su número de teléfono. Diga que está llamando con referencia al Estudio # 2006-01. Le regresarán su llamada lo antes posible.

El folleto que recibe con esta carta ayudará a contestar las preguntas que usted tenga sobre este estudio. También puede informarse más en nuestra página en Internet: www.cdc.gov/nchs/nsfg.htm. Para hacer una cita para su entrevista, por favor llame al teléfono gratuito de la Universidad de Michigan, 1-800-643-7605.

Le agradezco su ayuda con este importante estudio.

Atentamente,

/Edward J. Sondik, Ph.D./
Director, Centro Nacional para Estadísticas de Salud
<http://www.cdc.gov/nchs>

*Para leer acerca de la ley que protege su privacidad, el Acta de Protección de la Información Confidencial y Eficiencia Estadística de 2002, visite la página: <http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>. Las otras dos leyes que protegen su privacidad son la Sección 308(d) del Acta del Servicio de Salud Pública que nos permite hacer esta encuesta (4 USC 242 M) y el Acta de Privacidad de 1974 (5 USC 552a).

**U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES**

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

From the Director of the National Center for Health Statistics:

My agency, part of the U. S. Department of Health and Human Services, needs your help.

We are carrying out an important study called the National Survey of Family Growth. The survey gathers information on marriage and divorce, having and raising children, health, and the use of health care. The information is used for health and health education programs for men and women.

We are asking a scientific sample of households in the United States to take part in a short interview to be done by the highly respected University of Michigan. In a few days, an interviewer on the staff of the University of Michigan will visit your home to see if you or someone in your household is eligible for the study. The visit will only take about 5 minutes and any adult who lives in the home can answer. You may be selected for our main interview, which is described in the enclosed brochure.

We have enclosed \$5 as a token of our appreciation for your help. It is yours to keep. If you would like to set up a time for our interviewer to visit you, please call the University of Michigan (toll-free) at: 1-800-759-7947, to set up an appointment.

Your help with this short interview is very important and completely voluntary. By Federal law*, the answers you give are confidential and we will take all possible steps to protect your privacy. Your answers will be used for research only. We look forward to speaking with you soon about this important, nationally recognized and highly respected study of people in America.

On behalf of the National Center for Health Statistics, I thank you for your help with this important study.

Sincerely,

/Edward J. Sondik, Ph.D./
Director, National Center for Health Statistics
<http://www.cdc.gov/nchs>

*Here are the laws and the information you would need to read the law for yourself (Section 308(d) of the Public Health Service Act which allows us to carry out this survey (42 USC 242M), the Privacy Act of 1974 (5 USC 552a)), and the Confidential Information Protection and Statistical Efficiency Act of 2002 (<http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>)



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Del Director del Centro Nacional para Estadísticas de Salud:

La agencia a mi cargo, que es parte del Departamento de Salud y Servicios Humanos, necesita su ayuda.

Estamos haciendo un importante estudio llamado la Encuesta Nacional de Crecimiento Familiar. La encuesta obtiene información sobre matrimonio y divorcio, tener y criar hijos, salud y uso de servicios de atención médica. La información es usada para programas de salud y de educación sobre salud para hombres y mujeres.

Nos estamos dirigiendo a una muestra de hogares en los Estados Unidos, seleccionada por métodos científicos, para pedirles que participen en una breve entrevista que lleva a cabo una institución muy respetada: la Universidad de Michigan. Dentro de pocos días, una entrevistadora que es miembro del personal de la Universidad de Michigan irá a su hogar a ver si usted o alguien en su hogar es elegible para el estudio. La visita tomará solamente unos 5 minutos y cualquiera de los adultos que viven en su hogar puede responder. Es posible que resulten seleccionados para participar en nuestra entrevista principal que se describe en el folleto que le enviamos con esta carta.

Le estamos enviando \$5 como muestra de nuestro agradecimiento por su ayuda. Participe o no, ese dinero es para usted. Si desea hacer una cita para que una entrevistadora le visite, por favor llame al teléfono gratuito de la Universidad de Michigan al 1-800-643-7605 para hacer una cita.

Su participación en esta breve entrevista es muy importante y totalmente voluntaria. De acuerdo con las leyes federales*, sus respuestas serán confidenciales y tomaremos todas las medidas posibles para proteger su privacidad. Sus respuestas sólo se usarán para fines del estudio. Esperamos hablar pronto con usted sobre este importante estudio de la gente en los Estados Unidos, el cual goza de reconocimiento y alto grado de respeto a nivel nacional.

En nombre del Centro Nacional para Estadísticas de la Salud, le agradezco su ayuda con este importante estudio.

Atentamente,

/Edward J. Sondik, Ph.D./

Director, Centro Nacional para Estadísticas de Salud

<http://www.cdc.gov/nchs>

*A continuación se mencionan las leyes y la información que usted necesitaría para leer acerca de la ley por sí mismo(a) (Sección 308(d) del Acta del Servicio de Salud Pública que nos permite hacer esta encuesta (4 USC 242 M), el Acta de Privacidad de 1974 (5 USC 552a), y el Acta de Protección de la Información Confidencial y Eficiencia Estadística de 2002 (<http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>)


U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

 National Center for Health Statistics
 3311 Toledo Road
 Hyattsville, Maryland 20782

From the Director of the National Center for Health Statistics:

We are pleased you were chosen to take part in the National Survey of Family Growth. This important study is being done by the National Center for Health Statistics of the United States Department of Health and Human Services.

The interview asks questions about marriage and divorce, having and raising children, health and health care. It lasts about 60-80 minutes. The information is used for health services and health education programs. The highly respected University of Michigan will do the interviews.

We are asking your help to find a convenient time for you to talk with our interviewer. Interviewers work seven days a week, including evenings. Please help us by calling our toll-free number, 1-800-759-7947, to set up an appointment. For considering our request for your help, we are enclosing \$40 with this letter. When the interviewer visits you to conduct the interview, you will receive an additional \$40 as a token of our appreciation.

Your help in this study is voluntary but very important. Saying yes or no to being in the study will not change any benefits you get now or in the future. The interview is interesting and enjoyable for most people. Each person interviewed represents thousands of others.

By Federal law*, the answers you give are confidential and we will take all possible steps to protect your privacy. Your answers will be used for research only. We report the information in summary form. Individuals or families can not be identified. You may choose not to answer any question at any time. You may have questions about your rights as a participant in this research study. If so, please call the office of the Research Ethics Review Board at the National Center for Health Statistics, toll free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Study Number 2006-01. Your call will be returned as soon as possible.

You may also learn more about the survey at our website: www.cdc.gov/nchs/nsfg.htm. If you need to schedule your interview, please call the University of Michigan (toll-free) at 1-800-759-7947.

I thank for your help with this important study.

Sincerely,

/Edward J. Sondik, Ph.D./
 Director, National Center for Health Statistics
<http://www.cdc.gov/nchs>

*Here are the laws and the information you would need to read the law for yourself (Section 308(d) of the Public Health Service Act which allows us to carry out this survey (42 USC 242M), the Privacy Act of 1974 (5 USC 552a)), and the Confidential Information Protection and Statistical Efficiency Act of 2002 (<http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>)



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

Del Director del Centro Nacional para Estadísticas de Salud:

Nos complace que usted haya sido seleccionado(a) para participar en la Encuesta Nacional de Crecimiento Familiar. El Centro Nacional para Estadísticas de Salud, del Departamento de Salud y Servicios Humanos de los Estados Unidos, está llevando a cabo este importante estudio.

La entrevista incluye preguntas sobre matrimonio y divorcio, tener y criar hijos, la salud y la atención médica. Toma alrededor de 60 a 80 minutos. La información que se obtiene es usada para programas de servicios de salud y educación sobre salud. Las entrevistas serán hechas por una institución muy respetada: la Universidad de Michigan.

Le estamos pidiendo que nos ayude a determinar cuál sería un buen momento para que usted hable con nuestra entrevistadora. Las entrevistadoras trabajan siete días a la semana, e inclusive por la noche. Por favor ayúdenos llamando a nuestro teléfono gratuito 1-800-643-7605 para hacer una cita. Junto con esta carta le estamos enviando \$40 por su consideración de nuestro pedido de ayuda. Cuando la entrevistadora le visite para hacer la entrevista, usted recibirá \$40 adicionales como muestra de nuestro agradecimiento.

Su ayuda en este estudio es voluntaria pero es muy importante. Su decisión de participar o no participar en la encuesta no afectará ningún beneficio que usted reciba, ahora o en el futuro. Para la mayoría de las personas, la encuesta es interesante y entretenida. Cada persona entrevistada representa a miles de otras.

De acuerdo con las leyes federales*, sus respuestas serán confidenciales y tomaremos todas las medidas posibles para proteger su privacidad. Sus respuestas sólo se usarán para fines del estudio. La información se reporta en forma resumida. No se puede identificar a ningún individuo ni familia. Usted puede dejar sin contestar cualquier pregunta en cualquier momento. Tal vez usted tenga alguna pregunta sobre sus derechos como participante en este estudio. En tal caso, puede llamar al comité de Revisión de Ética en la Investigación, en el Centro Nacional para Estadísticas de la Salud, al teléfono gratuito, 1-800-223-8118. Por favor deje un mensaje breve con su nombre y su número de teléfono. Diga que está llamando con referencia al Estudio 2006-01. Le regresará su llamada lo antes posible.

También puede informarse más en nuestra página en Internet: www.cdc.gov/nchs/nsfg.htm. Si necesita hacer una cita para su entrevista, por favor llame al teléfono gratuito de la Universidad de Michigan, 1-800-643-7605.

Le agradezco su ayuda con este importante estudio.

Atentamente,

/Edward J. Sondik, Ph.D./

Director, Centro Nacional para Estadísticas de Salud

<http://www.cdc.gov/nchs>

*A continuación se mencionan las leyes y la información que usted necesitaría para leer acerca de la ley por sí mismo(a) (Sección 308(d) del Acta del Servicio de Salud Pública que nos permite hacer esta encuesta (4 USC 242 M), el Acta de Privacidad de 1974 (5 USC 552a), y el Acta de Protección de la Información Confidencial y Eficiencia Estadística de 2002 (<http://scitech.dot.gov/research/human/docs/hfcc/title-v.pdf>))

Appendix III. Interviewer Introduction Materials



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

To Whom It May Concern:

[INTERVIEWER NAME] has been authorized to work as a field interviewer on the National Survey of Family Growth (NSFG). This major study is sponsored by the National Center for Health Statistics of the U.S. Department of Health and Human Services. This survey provides information on health, marriage and divorce, having and raising children and medical care.

About 17,000 people in the U.S. will be selected at random to take part in this study.

The interviewers working on this study have been hired and trained by the University of Michigan's Survey Research Center, located in Ann Arbor, Michigan. The National Center for Health Statistics hired the University of Michigan (Contract # 200-2000-07001) to collect the data for the survey.

If you would like more proof that [INTERVIEWER NAME] is an interviewer working for the University of Michigan on this study, please call the Survey Research Center at 1-800-759-7947 (toll-free). This number is answered Monday-Thursday 9am-9pm, Friday 9am-5pm, and Saturday 12pm-4pm, Eastern time.

If you would like to know more about the NSFG, you may visit the study's website: www.cdc.gov/nchs/nsfg.htm. You may also call Dr. Joyce Abma or Dr. William Mosher, at the National Center for Health Statistics (1-866-227-8347 - toll-free), during business hours, Monday through Friday.

Thank you in advance for your help with this important research study.

Sincerely,

/Edward J. Sondik, Ph.D./
Director, National Center for Health Statistics



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

De mi mayor consideración:

[INTERVIEWER NAME] ha sido autorizada para trabajar como entrevistadora en la Encuesta Nacional de Crecimiento Familiar (NSFG, por sus siglas en inglés). Este importante estudio está patrocinado por el Centro Nacional para Estadísticas de Salud del Departamento de Salud y Servicios Humanos de los Estados Unidos. Esta encuesta proporciona información acerca de salud, matrimonios y divorcios, tener y criar hijos, y atención médica.

Aproximadamente 17,000 personas en los EE.UU. serán seleccionadas al azar para participar en este estudio.

Las entrevistadoras que trabajan en este estudio han sido empleadas y entrenadas para este proyecto por el Centro de Encuestas de la Universidad de Michigan, ubicado en Ann Arbor, Michigan. La Universidad de Michigan tiene un contrato (Contrato # 200-2000-07001) con el Centro Nacional para Estadísticas de Salud para recopilar los datos de la encuesta.

Si desea más pruebas de que [INTERVIEWER NAME] es una entrevistadora que trabaja para la Universidad de Michigan en este estudio, por favor póngase en contacto con el Centro de Encuestas llamando al teléfono gratuito 1-800-643-7605.

Si desea más información sobre la encuesta NSFG, puede visitar en Internet la página del estudio: www.cdc.gov/nchs/nsfg.htm. También puede llamar a la Dra. Gladys Martinez (ella habla Español) o al Dr. William Mosher, al Centro Nacional para Estadísticas de Salud (teléfono gratuito: 1-866-227-8347), durante horas de trabajo, de lunes a viernes.

Desde ya, le agradecemos su cooperación con este importante estudio.

Atentamente,

/Edward J. Sondik, Ph.D./
Director, Centro Nacional para Estadísticas de Salud

NSFG Screener Introduction

➡ Hello. I am *(NAME)* from the University of Michigan. Here is my identification card. We are conducting the National Survey of Family Growth for the National Center for Health Statistics, which is part of the US Department of Health and Human Services.

This letter explains all about this survey. You may remember receiving this letter and a brochure in the mail recently. Please take some time to read this important information.

{IF NECESSARY, YOU MAY READ THE LETTER TO THE HOUSEHOLD MEMBER.}

➡ Do you have any questions about anything (you have read/I have read to you) about the National Survey of Family Growth?

I have a few questions that tell us whether anyone living here can take part in our study. These questions take about 5 minutes. I have to ask these questions only of an adult member of the household. Are you 18 or over?

➡ {If yes, continue with screener}

➡ {If no} May I please speak to someone in the household who is age 18 or older?

➡ {If no adults live in the household} Thank you for your time. I need to contact my supervisor for instructions on how to proceed.

➡ This interview is completely voluntary and confidential. If there is any question that you do not wish to answer, please let me know and we can move on to the next question.

May I ask you these questions now?

IF YES, CONTINUE WITH THE SCREENER ON THE COMPUTER.

IF NO, ATTEMPT TO SCHEDULE AN APPOINTMENT FOR ANOTHER TIME.

Card Used to Greet Spanish-Speaking NSFG Informants

1. English: "Hello. Excuse me, sir/madam, but do you speak Spanish?"
Spanish: "Hóla. Perdón, señor/señora, ¿Usted habla español?"
Phonetic: "O-lah. Pear-doh-n, see-nee-or/see-nee-ora, oo-stead ah-blah es-pah-nee-ole?"

2. English: "Yes." "No."
Spanish: "Sí." "No."
Phonetic: "See." "No."

3. English: "Does any adult in the household speak English?"
Spanish: "¿Algún adulto en la casa habla inglés?"
Phonetic: "All-goön adulto in lah kah-sah ah-blah in-glays?"

4. English: "May I speak with that person?"
Spanish: "¿Puedo hablar con esa persona?"
Phonetic: "Pway-doh ah-blár cone essa per-so-nah?"

5. (*Give the person a pad of paper and say:*)
English: "Please write down here at what time I can find this person at home. If I can call by phone, please write down the telephone number here: ____."
Spanish: "Por favor, anote a qué hora puedo encontrar a esa persona en casa. Si puedo llamar por teléfono, por favor anote el número de teléfono aquí."
Phonetic: "Pour fah-four, ah-note-ay ah kay or-ah pway-doh in-cone-trar ah essa per-so-nah in kah-sah. See pway-doh yah-marr pour tele-phono pour fah-four ah-note-ay L new-mer-o day tele-phono ah-key: ____."

The best health decisions are based on the best health information.

"CDC's National Survey of Family Growth is critical to help ensure that policies and programs address the health needs of all Americans. The survey provides important health information on family life that can be used to help people live stronger and healthier lives. I urge you to take part in this important survey to help impact in a positive way our nation's health."

Dr. Julie Gerberding, MD
 Director, Centers for Disease Control and Prevention

Your household has been chosen to take part in the NATIONAL SURVEY OF FAMILY GROWTH. The NSFG is an important research study of men, women and families. In this brochure, we answer some of the questions people ask about the study.



Questions & Answers



The National Survey of Family Growth

WHAT IS THE NATIONAL SURVEY OF FAMILY GROWTH?

The National Survey of Family Growth gathers information on family life, marriage and divorce, pregnancy, infertility, use of birth control, sexual experience, and men's and women's health. The U.S. Department of Health and Human Services uses the survey results. This information is used to plan health services and educational programs.

The survey is authorized by a federal law, Section 306(b) 1 (h) of the Public Health Service Act (42 USC 242), which asks us to collect "statistics on family formation, growth, and dissolution."

The survey provides accurate national statistics on critical issues like:

- People making choices about school, work and having a family
- Women looking for a safe and effective way to space their children
- The health care that men and women get, including family planning and reproductive health
- Risk for sexually transmitted infections
- Child care services used by working parents
- How programs for families and children are working

WHO IS DOING THE NATIONAL SURVEY OF FAMILY GROWTH?

The National Center for Health Statistics (NCHS), part of the U.S. Department of Health and Human Services, does the survey. You can find out more about NCHS at www.cdc.gov/nchs. NCHS has asked the University of Michigan to do the interviews. A professional, female interviewer from the University of Michigan's Survey Research Center will come to your home and find out if you are eligible for the study. The interviewer who comes to your home will have a University of Michigan identification badge with her picture on it and a Letter of Authorization from the U.S. Department of Health and Human Services. She will ask you questions and type your answers into a laptop computer. You will also get to answer some questions by putting answers into the computer yourself.

HOW WAS I CHOSEN?

We do not know who lives at your house or what your name is. We take a sample of households from all across the United States. When your interviewer arrives, she will find out if there is someone in your household we need to include in our study.



WHY SHOULD I PARTICIPATE? WHY NOT INTERVIEW ACROSS THE STREET?

We cannot talk to all of the millions of men and women in this country — that would cost too much and take too long. So we scientifically select a “sample” of households. We then choose one person from some of those households to be in the survey. Choosing the sample scientifically lets us take the information we learn and use it to better understand the whole population. Once participants have been chosen they cannot be replaced.

ARE THESE INTERVIEWS JUST FOR FAMILIES, OR THOSE WITH CHILDREN?

No. If you do not have children, or live alone, your responses are just as important to the study as anyone else’s. You will be asked only those questions that apply to you. For example, we need to have accurate information about topics such as:



- How many people are choosing not to have children or to have them later in life
- How long marriages and other relationships last
- How often divorced fathers see their children
- The need for infertility services

WILL MY ANSWERS BE KEPT PRIVATE?

Yes. Federal law protects the confidentiality of all the information you provide [Section 308(d) of the Public Health Service Act (42 USC 242M), the Privacy Act of 1972 (5 USC 552a), and the Confidential Information Protection and Statistical Efficiency Act (PL 107-347)]. Each research staff member has signed a legal confidentiality pledge. The answers you give will be combined with answers from many other people. The data will be reported as percentages, totals, and averages. By law we cannot release information that could identify you or your family to anyone else. Anyone who breaks the law can be fined up to \$250,000, lose their job, and/or be sent to prison.

DO I HAVE TO ANSWER THE QUESTIONS?

Your help with this study is voluntary. Saying yes or no to being in the study will not change any benefits you get now or in the future.

Most people find the interview interesting and enjoyable. Your participation is very important because each person interviewed represents thousands of others. Some of the questions may be sensitive for some people. You may choose not to answer any question for any reason and may stop the interview at any time.

Who Is The UNIVERSITY OF MICHIGAN?

The University of Michigan was one of the first public universities in the United States. Today, the University is one of the largest research universities in the world. This study is only one of many important surveys done by the University’s Survey Research Center. Other studies’ topics include families, health, retirement and other important issues.



HOW LONG WILL IT TAKE?

Interviews take about 60-80 minutes for most adults. Interviews for teenagers take about 60 minutes. A few interviews take a little less or a little more time. We will do the interview at the time that works best for you. Also, for your help in being part of this study, you will receive \$40 as a token of our appreciation.

WHERE DO I GET MORE INFORMATION?

For study information:

- ✦ Ask your interviewer
- ✦ Visit the survey’s website at www.cdc.gov/nchs/nsfg.htm
- ✦ Call Dr. Bill Mosher or Dr. Joyce Abma at NCHS (toll-free): 1-866-227-8347

For information about your rights as a participant:

- ✦ Call the office set up to oversee research (toll-free): 1-800-223-8118

To schedule an interview:

- ✦ Call the University of Michigan (toll-free): 1-800-759-7947



U.S. Department of Health & Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics



A Research Study for the
National Center for Health Statistics conducted by
The University of Michigan



Other Safeguards for Your Privacy

- We remove any information that could reveal who you are. Names and addresses are never on anything we give out. We also mask details on jobs, family, or other traits if they could lead to anyone being identified.

- No one from outside NCHS can get to the information stored in NCHS computers. Measures include passwords, firewalls, and other means to block people from getting these data.

- No one can obtain data that identifies you from NCHS. We will not give information that identifies a person to police, the military, or any other government agency, including the Internal Revenue Service, Immigration, or welfare agencies, for any reason. And your information is protected from the Freedom of Information Act and court subpoenas.

For More Information

NCHS data are released in printed reports and CD-ROM's after identifying information has been removed. For more information, visit the NCHS home page:

www.cdc.gov/nchs

For specific questions about how NCHS protects the information you provide, contact:

Alvan O. Zarate, Ph.D.
Confidentiality Officer
National Center for Health Statistics
Centers for Disease Control and Prevention
3311 Toledo Road, Room 7039
Hyattsville, MD 20782
Telephone: 301-458-4601
E-mail: aosz1@cdc.gov



U.S. Department of Health
& Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics



A Research Study for the
National Center for Health Statistics conducted by
The University of Michigan

The National Survey of Family Growth

How We Keep Your Information Strictly Confidential

Protecting the public's privacy... no idle pledge

The Law

Information collected in the National Survey of Family Growth (NSFG) is used only for statistical purposes. No information that could identify a person can be released to anyone—including the President, Congress, or any court.

The Sworn Statement

Anyone working on this study must sign an affidavit—a legal document making them subject to the Privacy Act, the Public Health Service Act, and other laws. Anyone who violates the law can be fined up to \$250,000, lose their job, or go to jail.

The Record

Since its very first survey in 1957, the National Center for Health Statistics (NCHS) has maintained a perfect record in protecting the privacy of people in its surveys.

A message from the Director of NCHS:

This agency is well known for the quality of the data we provide. Collecting high-quality information is not possible unless we can promise that the information you give us is confidential. We can.

The principles of privacy and confidentiality are firmly grounded in Federal laws. Those laws include the Privacy Act, the Public Health Service Act, Title 18 of the United States Code, and the Confidential Information Protection and Statistical Efficiency Act. All NCHS employees must sign a pledge making them legally liable and subject to all punishments in these laws.

Those working for NCHS must also strictly observe special practices to protect confidential information. The practices are meant to insure that your privacy is respected.

So we have a number of very important reasons for observing strict confidentiality. It is the right thing to do. We could not collect quality information without it. And it is required by law.

Edward J. Sondik, Ph.D.
Director, National Center for Health Statistics

NCHS and NSFG

The National Center for Health Statistics (NCHS) first carried out the National Survey of Family Growth (NSFG) in 1973. For over 30 years, the NSFG has been the major source of information on trends in US childbearing, marriage and divorce, contraceptive use, and parenting. These data are used to guide health services and health education programs all over the US. You can see some of the statistics produced from the NSFG at our web site:

www.cdc.gov/nchs/nsfg.htm

Appendix V. Consent/Assent Forms



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

ADULT'S PERMISSION FOR INTERVIEW

This interview is part of the National Survey of Family Growth. This research study is being done for the U.S. National Center for Health Statistics. The University of Michigan will do the interviews. The survey has questions on marriage and divorce, having and raising children, health and health care. The information will be used for health services and health education programs in the U.S.. The interviewer will only ask questions that apply to you. The interview lasts about 60-80 minutes. Answers to the questions will be entered into a laptop computer.

You will be part of a scientific sample of people. You will represent thousands of other people across the country. Your participation is very important because it will help the study be accurate for people like yourself. For your help in this study, you will receive \$40 as a token of appreciation.

By Federal law, the answers you give are confidential and we will take all possible steps to protect your privacy. Your answers will be used for research only. To keep the answers confidential it is important to do the interview in a private setting. This brochure, which you may have seen earlier, answers questions people sometimes ask about the study.

Your help in this study is completely voluntary. Saying yes or no to being in the survey will not change any benefits you get now or in the future. For most people, the survey is interesting and enjoyable. Some of the questions in the interview may be sensitive for some people. You may choose not to answer any question for any reason, and you may stop the interview at any time.

You may have questions about your rights as a participant in this research study. If so, please call the office of the Research Ethics Review Board at the National Center for Health Statistics, toll free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Study Number 2006-01. Your call will be returned as soon as possible. If you have other questions about the survey, you may call Dr. William Mosher or Dr. Joyce Abma (toll-free) at NCHS: **1-866-227-8347**, or visit the NSFG webpage: www.cdc.gov/nchs/nsfg.htm.

Thank you again for being part of our survey.

I have read the study letter and brochure. I agree to take part in the survey.

I received the \$40 token of appreciation.

I refused the \$40 token of appreciation.

Respondent's Signature R

Respondent's Name (PLEASE PRINT)

Interviewer's Signature

I have read the study letter and brochure. I agree to take part in the survey but do not wish to sign this consent form.

Interviewer: The respondent has read the study letter and brochure or they have been read to the respondent. The respondent has given oral permission to be interviewed, but does not wish to sign the consent form.

Interviewer's Signature



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

PARENT’S/GUARDIAN’S PERMISSION FOR INTERVIEW

This interview is part of the National Survey of Family Growth. This research study is being done for the U.S. National Center for Health Statistics. The University of Michigan will do the interviews. The survey has questions on marriage and divorce, having and raising children, health and use of health care, and attitudes and opinions about these topics. The interviewer will only ask questions that apply to your son or daughter’s experience. The information will be used for health services and health education programs in the U.S. The interview lasts about 60 minutes. Answers to the questions will be entered into a laptop computer.

Your son or daughter will be part of a scientific sample. This sample will represent the 20 million teenagers in the United States. His or her participation is very important and will help the study results to be accurate for all teenagers. Your teenager will receive \$40 as a token of appreciation for his or her help in this study.

By Federal law, your teenager’s answers are confidential and we will take all possible steps to protect your teenager’s and your family’s privacy. Your teenager’s answers will be used for research only and will not be shared with you or other family members. To keep the answers confidential it is important to do the interview in a private setting. This brochure, which you may have seen earlier, answers questions people sometimes ask about the study.

Giving your permission does not mean that your son or daughter has to do the interview. It just means that we have your permission to ask him or her for the interview. Your son or daughter is free to decide to do the interview or not. Saying yes or no to being in the survey will not change any benefits you or your teenager gets now or in the future. For most people, the survey is interesting and enjoyable. Some of the questions in the interview may be sensitive for some people. Your son or daughter may choose not to answer any question for any reason, and he or she may stop the interview at any time.

You may have questions about your teenager’s rights as a participant in this research study. If so, please call the office of the Research Ethics Review Board at the National Center for Health Statistics, toll free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Study Number 2006-01. Your call will be returned as soon as possible. If you have other questions about the survey, you may call Dr. William Mosher or Dr. Joyce Abma (toll-free) at NCHS: **1-866-227-8347**, or visit the NSFG webpage: www.cdc.gov/nchs/nsfg.htm.

I have read the study letter and brochure. You may ask my son or daughter if he or she wants to take part in the survey.

Parent’s/Guardian’s Signature

Parent’s/Guardian’s Name (PLEASE PRINT)

Son or Daughter’s Name (PLEASE PRINT)



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention

National Center for Health Statistics
3311 Toledo Road
Hyattsville, Maryland 20782

MINOR'S PERMISSION FOR INTERVIEW (AGE 15-17)

We are doing a research study called The National Survey of Family Growth. Your parent or guardian says that you may take part. This study is being done for the U.S. National Center for Health Statistics. The University of Michigan does the interviews. The survey has questions on marriage and divorce, having and raising children, health and health care. We also ask your thoughts about these topics. The interviewer will only ask questions that make sense for you. The information will be used for health services and health education programs for teens and adults. The interview lasts about 60 minutes. Answers will be put into a laptop computer.

You will be part of a sample that represents the teenagers in the U.S. Your help is very important because you represent thousands of others. To thank you for your help in this study, we will give you \$40.

By Federal law, the answers you give are confidential and we will take all possible steps to protect your privacy. We will not share them with your parents, other family members or anyone else. They will be used for research only. To keep the answers private we will do the interview in private. This brochure answers questions people sometimes ask about the study.

It's your choice to do the interview or not. Saying yes or no to being in the survey will not change any benefits you get now or ever. For most people, the survey is interesting and enjoyable. Some of the questions in the interview may be sensitive for some people. You can say no to any question for any reason. You can stop at any time.

You may have questions about your rights as a participant in this research study. If so, please call the office of the Research Ethics Review Board at the National Center for Health Statistics, toll free, at 1-800-223-8118. Please leave a brief message with your name and phone number. Say that you are calling about Study Number 2006-01. Your call will be returned as soon as possible. If you have other questions about the survey, you may call Dr. William Mosher or Dr. Joyce Abma (toll-free) at NCHS: **1-866-227-8347**, or visit the NSFG webpage: www.cdc.gov/nchs/nsfg.htm.

If you agree to take part in this study, please sign this form. Thank you again for being part of our survey.

I have read the study letter and brochure. I agree to take part in the survey.

I received the \$40 token of appreciation.

I refused the \$40 token of appreciation.

Respondent's Signature R

Respondent's Name (PLEASE PRINT)

Interviewer's Signature

National Survey of Family Growth: Life History Calendar

	2003												2004												2005												2006											
Before 2003	Ja	Fe	Ma	Ap	My	Jn	Jl	Au	Sp	Oc	Nv	Dc	Ja	Fe	Ma	Ap	My	Jn	Jl	Au	Sp	Oc	Nv	Dc	Ja	Fe	Ma	Ap	My	Jn	Jl	Au	Sp	Oc	Nv	Dc	Ja	Fe	Ma	Ap	My	Jn	Jl	Au	Sp	Oc	Nv	Dc
Your Age																																																
Education																																																
Births & Other Pregnancies																																																
Marriages, Cohabs, Partners																																																
Intercourse																																																
Birth Control Methods																																																

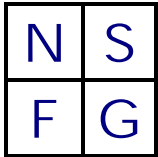
Your Date of Birth: _____

Date of First Intercourse: _____

Some suggested abbreviations for birth control methods:
 P = Pill
 C = Condom
 W = Withdrawal
 FS = Female sterilization
 V = Vasectomy
 D = Depo Provera

Birth or Pregnancy Ending Dates:

1st: _____ 2nd: _____ 3rd: _____ 4th: _____ 5th: _____



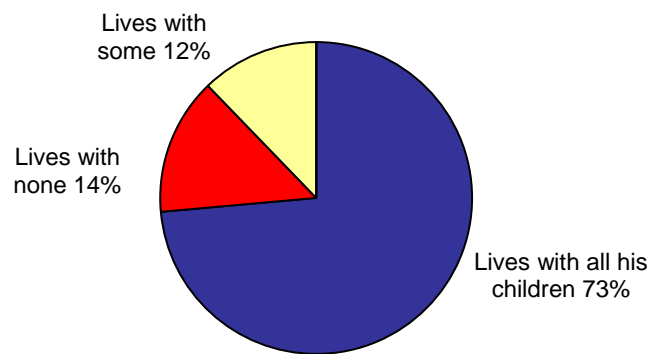
Family Facts

from the National Survey of Family Growth

The National Survey of Family Growth (NSFG) collects data on such topics as pregnancy, adoption, contraceptive use and effectiveness, and infertility. In 2004, it was praised by the *Washington Post* as “a comprehensive, well-respected government survey” and “one of the most authoritative sources of information.” The *Washington Times* said the survey “provides bed rock data on American family life, marriage, divorce, adoption, cohabitation, family planning, fatherhood, infertility, pregnancy and birth.” Below are some examples of actual data collected by the study the last time it was conducted in 2002.

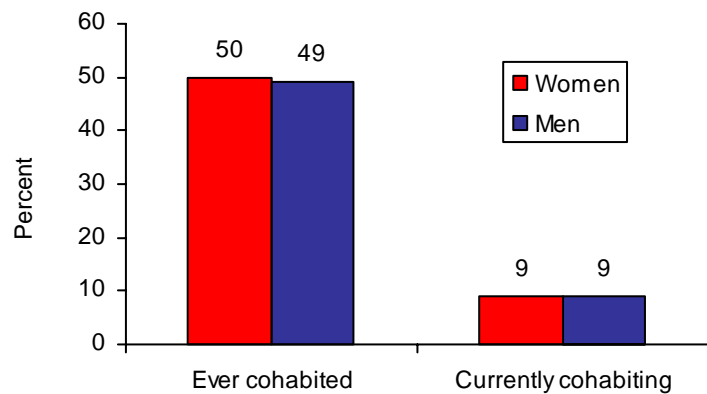
Living Arrangement with Children

73% of fathers live with all of their children; 14% do not live with any of their children, and 12% live with some and not others.



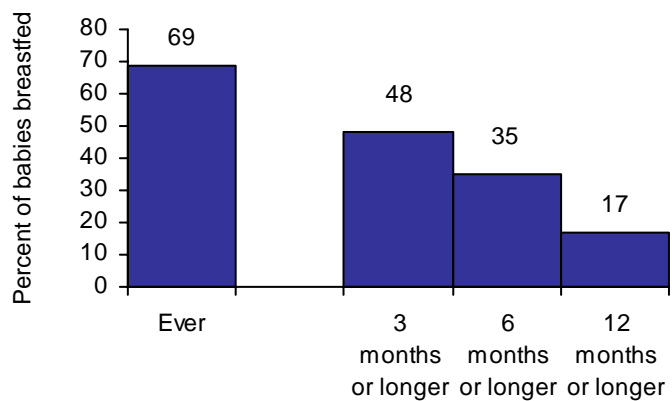
Cohabiting

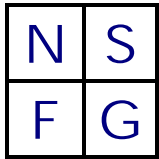
About half of men and women have ever cohabited at some time and 9% are currently cohabiting.



Breastfeeding

Approximately two-thirds of babies born 1997 through 2000 were breastfed. By one year of age, only 17 percent were still being breastfed.



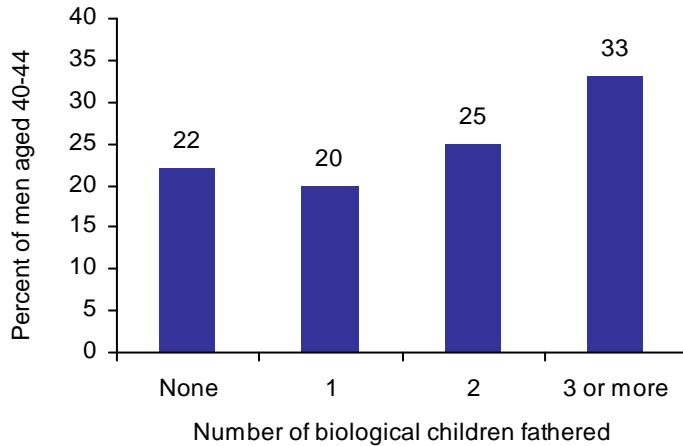


Family Facts

from the National Survey of Family Growth

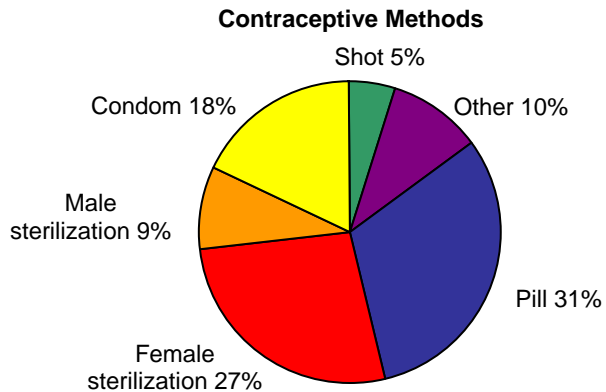
Number of Children Fathered

Among men 40 - 44 years old, 22% have not fathered any children and 33% have fathered 3 or more children.



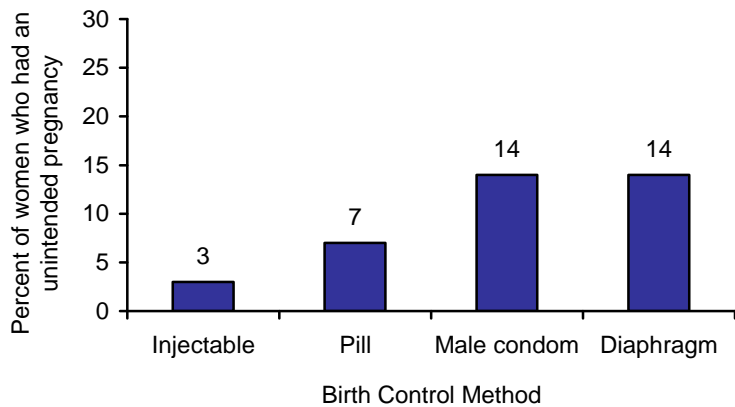
Contraception

The most popular methods of contraception in the U.S. in 2002 were the pill, female sterilization, and the condom.



Unintended Pregnancies

In their first year using the pill, 7% of women had an unintended pregnancy, compared with 14% of those using condoms and 14% of those using diaphragms.



U.S. Department of Health & Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics



A Research Study for the National Center for Health Statistics conducted by
The University of Michigan

Appendix VII. Interviewer Training Agenda

NSFG Study-Specific Training Participant's Agenda June 2007

There will be an hour lunch break and two 15-minute breaks each day.
You will need to have your training binder and tablet computer with you every day.
A one-hour computer help session will be available each day immediately following training.

Sunday, June 24 *12:00pm to 5:45pm*

On-staff Field Researchers will join New Hire Field Researchers for lunch beginning at noon. Study-specific training will start after lunch.

<i>Topic</i>	<i>Group</i>
Welcome, Introductions & NSFG Overview	Full Group
Sampling & Listing Concepts	Full Group
Electronic Listing Program (ELP)	Full Group
Listing Exercise	Small Groups

Monday, June 25 *8:00am to 5:00pm Topic*

<i>Topic</i>	<i>Group</i>
Announcements and Goals for the Day	Full Group
NSFG: The Overall Picture	Full Group
Introducing NSFG to Informants and Respondents	Full Group
NSFG Screening	Full Group
Informed Consent & Token Protocols and Practice	Full Group
Female Mock Interview #1—Walk-Through	Full Group
Female ACASI & Completing the Interview	Full Group
Wrap-Up	Full Group

Tuesday, June 26***8:00am to 5:30pm***

<i>Topic</i>	<i>Group</i>
Announcements and Goals for the Day	Full Group
Completing and Entering Interview Observations	Full Group
Male Mock Interview #1—Walk-Through	Full Group
Female Mock Interview #2—Round Robin	Small Groups
NSFG Deputy Project Director, Bill Axinn	Full Group
Wrap-Up	Full Group

Wednesday, June 27***8:00am to 4:30pm***

<i>Topic</i>	<i>Group</i>
Announcements and Goals for the Day	Full Group
Female Mock Interview #3—Round Robin	Small Groups
Male Mock Interview #2—Round Robin	Small Groups
Wrap-up	Small Groups

Thursday, June 28***8:00am to 2:45pm***

<i>Topic</i>	<i>Group</i>
Announcements and Goals for the Day	Full Group
Addressing Respondent Concerns	Full Group
Special Circumstances in the Field <ul style="list-style-type: none"> • Safety Concerns • Dealing with Upset Respondents • Spanish Interview Protocol 	Full Group
Putting It All Together/Administrative Matters	Full Group

*****Pre-assigned certification sessions will be held on Thursday afternoon and Friday*****

Appendix VIII. Project Manual Table of Contents

NSFG Project Manual

Chapter 1 – NSFG Project Design and Background

1.1	Introduction to the NSFG	1
	Study Purposes and Background	1
	Who Uses the Data?	1
	Past NSFG Cycles	2
	NSFG Cycle 7	3
	Project Management and Organization	4
	Data Collection Operations Staff	4
	Role of the Field Researcher	5
	Data Collection Team	6
	Field Period	7
	Production Goals	7
	Importance of Confidentiality	8
	Procedures for Maintaining Confidentiality	9
1.2	NSFG Sample Design and Sampling Procedures	15
	Sampling Procedures and Listing Process	15
	The NSFG Cycle 7 Sample Design	17

Chapter 2 – Computer Equipment and Software

2.1	Computer Usage	21
	Getting to Know Your Tablet PC	21
	Using Your Tablet PC	40
	<i>Step One - Setting up the Tablet PC</i>	40
	<i>Step Two - Power Sources</i>	40
	<i>Step Three - Opening the Tablet PC</i>	41
	<i>Step Four—Starting your Tablet PC</i>	41
	<i>Step Five - Navigating/Using the Pen and Touch Pad Pointing Device</i>	41
	<i>Step Six - Controlling the Volume</i>	41
	<i>Step Seven - Shutting Down the Tablet PC</i>	41
	Communicating with Your Tablet PC	42
	<i>High-Speed Connection</i>	42
	<i>Wireless Connection</i>	43
	<i>Communication when Traveling</i>	43
	Taking Care of Your Tablet PC	44
	<i>Caring for your Tablet PC</i>	44
	<i>Cleaning the Tablet PC</i>	45
	<i>Safeguarding the Tablet PC</i>	45
	Computer Terms	45
	Troubleshooting	47
	<i>ACASI Troubleshooting</i>	47
	<i>Computer Troubleshooting</i>	49
	Help Desk	50
2.2	NSFG SurveyTrak	53
	Introduction to the Three NSFG SurveyTrak Projects	53
	Listing Project	53
	Screener Project	54
	Interview Probability	57
	Level of Resistance	57

Eligibility Judgment	57
Main Interview Project	57
Permission Forms and Electronic Signatures	60
Completing Observations	60
<i>Segment Observations</i>	60
<i>Housing Unit Observations</i>	61
<i>Contact Observations</i>	61
<i>Other Contact Observations</i>	62
<i>Interview Observations</i>	62
Follow-Up Letter Requests	63
2.3 NSFG Listing in SurveyTrak	65
Listing Tab	65
Transfer Listing	66
Transfer History	66
Finalized	67
Maps	67
Segment Observations	68
Special Notes	70
Listing	71
Function Buttons	75
Consistency Check/Counters	79
<i>Segment Observations</i>	79
<i>Measure of Size (MOS) Discrepancy</i>	79
<i>Duplicate Addresses</i>	79
Reports	79
<i>Line Listing Report</i>	79

Chapter 3 – Contacting Households & Obtaining Consent

3.1 Planning and Scheduling your Work	81
Advance Preparation	81
Segment Information	81
First Visit to a Segment	81
Listing and Completing Segment Observations	82
Contacting Sample Households	83
<i>When to Contact?</i>	83
<i>Working Smart</i>	84
3.2 Approaching the Household	87
Tools for Obtaining Participation	87
<i>Advance Household Letter</i>	87
<i>Advance Respondent Letter</i>	87
<i>The Questions & Answers Brochure</i>	87
<i>Verbal Introduction</i>	88
<i>University of Michigan ID Badge</i>	88
<i>Letter of Authorization</i>	88
<i>Confidentiality Brochure</i>	88
<i>The NSFG Family Facts Sheet</i>	88
<i>Toll-Free Numbers/Website Card</i>	89
The Introduction and Screening Process	89
Confidentiality Assurances	90
Private Setting for the Interview	90
Safeguards to Respondent Privacy	91
Barriers to Obtaining Participation	93
<i>Local Environment</i>	93
<i>Limited Access Buildings</i>	94
Introduction to Informants and Respondents	96
Follow-Up Letters	97

Developing Your Own Interviewing Style	97
Tips on Building Rapport	98
Approaching a non-English-Speaking Household	101
Protocol for Spanish-Speaking Households	102
Approaching a Non-English/Non-Spanish-Speaking Household	103
3.3 Identifying and Addressing Respondent Concerns	125
Overview	126
1. Know the Survey Thoroughly	126
<i>Know the Instrument and Study Procedures</i>	126
<i>Anticipate Answers to Commonly Asked Questions</i>	126
<i>Provide Accurate Information</i>	126
2. Listen Actively	126
<i>Non-Verbal or Environmental Cues</i>	127
<i>External Cues</i>	128
<i>Internal Cues</i>	129
<i>Personal Cues</i>	130
3. & 4. Identifying the Concern Expressed and Selecting an Appropriate Respondent	130
<i>Identifying the Primary Concern</i>	130
<i>Themes of Reluctance</i>	131
<i>Time and Burden Concerns</i>	132
<i>Confidentiality Concerns</i>	133
<i>Privacy/Personal/Sensitive Questions</i>	134
<i>Not Interested” Concerns</i>	135
<i>Note on Parental Concerns</i>	136
5. Deliver the Response Effectively	136
Other Responses to Specific Concerns	137
Summary	142
3.4 Screening Households	143
Screening Overview	143
Identifying the Informant	143
The Introduction	143
Conducting the Screener	144
The Household Roster	145
Names and Initials	146
Gender	146
Age	147
Race and Ethnicity	147
Dorm Resident	147
Entering Additional People	148
Finishing the Roster	148
Getting Information from the Informant	149
Finishing the Screener	150
<i>No Eligible Household Members</i>	150
<i>An Eligible Household Member</i>	150
Sampling Updates	152
3.5 Obtaining Consent and Token Procedures	155
Informed Consent	155
Electronic Signatures	155
Adult’s Permission for Interview Form Procedures	155
<i>Respondent Agrees to Sign the Permission for Interview Form</i>	156
<i>Respondent Agrees to Participate but not to Sign the Permission Form</i>	156
Minor’s Permission for Interview Form Procedures	158
<i>Parent/Guardian Declines to Allow Minor to Participate</i>	158
<i>Parent/Guardian Agrees to Allow Minor to Participate</i>	159
<i>Minor Respondent Agrees to Sign Permission for Interview Form</i>	159
<i>Minor Respondent Agrees to Participate but not to Sign the Form</i>	160
<i>State-Specific Laws on Age of Majority</i>	160

<i>Emancipated Minors</i>	160
Important Things to Remember about Obtaining Consent	161
Tokens of Appreciation	161
<i>Obtaining a Cash Advance</i>	162

Chapter 4 –Interviewing Conventions and NSFG Questionnaire

4.1	General Interviewing Techniques	167
	Introduction	167
	Question Reading	167
	<i>Ask the Questions Exactly as They are Worded in the Questionnaire.</i>	167
	<i>Read Each Question Slowly.</i>	167
	<i>Ask Every Question Specified in the Questionnaire</i>	168
	Clarification	168
	Probing	169
	Neutral Probing Techniques	170
	<i>Repeating the Question</i>	170
	<i>An Expectant Pause</i>	170
	<i>Repeating the Respondent's Reply.</i>	170
	<i>Neutral Probes</i>	170
	Probing for Dates and Ages	173
	Neutral, Non-Directive Probing	173
	Probing Attitudinal vs. Factual Questions	174
	Neutral Prefaces for Probes	175
	Feedback	176
4.2	The NSFG Female Questionnaire	181
	Introduction	181
	Section Overviews	181
	<i>Female Section A: Introduction, Calendar Introductions, Demographic Characteristics, Household Roster, Childhood Background.</i>	181
	<i>Female Section B: Pregnancy and Birth History, Adoption and Nonbiological Children</i>	182
	<i>Female Section C: Marital and Relationship History</i>	182
	<i>Female Section D: Sterilizing Operations and Fertility Problems</i>	183
	<i>Female Section E: Contraceptive History and Pregnancy Wantedness.</i>	183
	<i>Female Section F: Family Planning and Medical Services.</i>	184
	<i>Female Section G: Birth Desires and Intentions</i>	184
	<i>Female Section H: Infertility Services and Reproductive Health</i>	184
	<i>Female Section I: Insurance, Residence, Work Experience and Attitudes</i>	185
	ACASI Language	185
	<i>Female Section J: ACASI (Audio Computer-Assisted Self-Interview)</i>	185
	Completing the ACASI	186
	Aids to the Female Instrument	187
	<i>Show Cards.</i>	187
	<i>Question-by-Question Help</i>	188
	<i>The NSFG Life History Calendar</i>	189
	<i>Pill Chart</i>	194
	Completing the Interview	195
4.3	The NSFG Male Questionnaire	201
	Introduction	201
	Section Overviews	201
	<i>Male Section A: Demographic Characteristics, Household Roster, Childhood Background, Number of Marriages and Cohabitations</i>	201
	<i>Male Section B: Sex education, Sexual experience, and Sterilization and Infertility.</i>	202
	<i>Male Section C: Current Wife or Cohabiting Partner</i>	203
	<i>Male Section D: Recent Sexual Partners and First Sexual Partner</i>	203
	<i>Male Section E: Former Wives and the First Cohabiting Partner</i>	203
	<i>Male Section F: Other Biological Children, Other Adopted Children, Other Pregnancies</i>	204

	<i>Male Section G: Fathering</i>	204
	<i>Male Section H: Desires and Intentions for Future Children</i>	204
	<i>Male Section I: Health Conditions and Health Services</i>	204
	<i>Male Section J: Residence, Work Experience and Attitudes</i>	205
	ACASI Language	205
	<i>Male Section K: ACASI (Audio Computer-Assisted Self-Interviewing)</i>	206
	Completing the ACASI	206
	Aids to the Male Instrument	206
	Completing the Interview	206
4.4	NSFG Questionnaire Conventions	209
	Navigating in the NSFG Interview	209
	Special Keys	210
	Recording Comments	210
	Entering Responses	210
	<i>Close-Ended Questions</i>	211
	<i>Enter All that Apply</i>	212
	<i>Numeric Responses</i>	213
	<i>Open-Ended Questions</i>	214
	<i>Date Questions</i>	215
	<i>Correcting or Modifying Responses</i>	217
	Edit Checks in the Questionnaire	217
	<i>Hard Edit Checks</i>	218
	<i>Soft Edit checks</i>	218
	Using Databases	220
	<i>State Database</i>	220
	<i>Clinic Database</i>	221
	The ACASI Section	221
	Commonly Used Icons	222
4.5	Interview Observations	227
	Observations Overview	227
	Starting the Interview Observation	227
	Completing the Interview Observation Form	228
	Respondent Questions	228
	Entering the Interview Observations into the Computer	228

Chapter 5 – Quality Control and Administrative Procedures

5.1	Neutrality and Professionalism	229
	Neutrality in Interviewing	229
	<i>Personal Cues</i>	230
	<i>Less Obvious Characteristics</i>	231
	<i>Expecting the Unexpected</i>	232
	<i>Points to Remember</i>	232
	Asking Sensitive Questions	233
	Dealing with Upset Respondents	234
	Safety in the Field	236
	Authorization Letter	237
	Unusual Circumstances	238
	<i>Intoxicated Respondents</i>	238
	<i>Drugs and other Illegal Activity</i>	238
5.2	Quality Control	243
	Quality Control Procedures	243
	<i>Practice, Monitoring and Evaluation at Training</i>	243
	<i>Certification Interviews</i>	244
	<i>Verification</i>	244
	<i>Production Review Interview</i>	245

5.3	Administrative Procedures	247
	Goals and Expectations	247
	Tenrox	248
	Overnight Travel Policy	248
	Ordering Supplies	248
	Cell Phones	249
	Land-Line Phone Calls	249
	NSFG Field Researcher Website	249

Appendix IX. FAQ's for National Survey of Family Growth, Continuous Interviewing

The following appendix shows some Frequently asked questions (FAQ's) and their answers. Additional information will be released on the NSFG web site (<http://www.cdc.gov/nchs/nsfg.htm>) as it becomes available.

1. Given that the continuous interviewing design uses quarterly samples, can I analyze the data for just one quarter?

No. Sample sizes for a single quarter are too small to provide estimates with adequate levels of precision. In general, NSFG staff recommend using data for at least 18 months for adequate precision. In the first data file, weights will be included only for the full 30 months of interviewing, and for the last 18 months of interviewing (when certain new questions were introduced). Analysts should only use time periods for which sampling weights are provided.

2. The public use data file has both recoded variables ("recodes") and raw variables. Which ones should I use?

NCHS recommends using the recoded variables because they have been studied for consistency and any missing data has been resolved through imputation. Using the recodes allows the analyst to make use of the intensive scrutiny given to them. Thus, NCHS uses the recoded variables in many of the tables in NCHS official publications. If a recoded variable is not available for a specific analysis, then the raw variables or computed variables should be used.

3. Will the continuous interviewing design use different questionnaires over the years?

Changes occurred at the beginning of the 2nd and 3rd years of interviewing (no changes were made for year 4). But over 95% of the questions remain the same from one year to the next. Variables measured in only some of the years will be noted in the public use documentation of the data sets.

4. How do I combine the different quarters of data collection in my analysis?

The NSFG staff and contractor will include sampling weights on the data files for time periods for which analysis is appropriate. See question 1 and the data release documentation for more details.

5. Given that the size of the data set can become large over the many quarters of continuous interviewing, can I analyze the data separately for different states in the country?

Although the number of data records in the pooled data set of the continuous survey can become large when several years of data are combined, the sample is limited to 110 primary areas. These primary areas do not fall in all states. As long as this design is used, estimates cannot be computed for individual states. If the sample design were modified and sample sizes increased, estimates for at least some states would become possible.

6. Can I combine the data for males and females in continuous interviewing?

There is a combined file for males and females, which contains variables that are common to both sexes. Using the sampling weights, estimates for both males and females can be made.

7. For a recoded variable, how do I find out what questions in the questionnaire contributed to it?

The "Recode specifications" are given in the public use data file documentation. These specifications show how each recoded variable was constructed. The NSFG staff recommends using recodes when they are appropriate for a particular analysis, because they have been checked for accuracy, edited, and imputed.

8. Should I obtain the same results on birth-related statistics from analyzing continuous NSFG as vital statistics?

Birth statistics based on the National Vital Statistics System are derived from a complete count of the approximately 4 million birth certificates filed each year. The continuous NSFG, in contrast, estimates these births with a sample of a few hundred births each year to women in the continuous NSFG sample. Therefore, continuous NSFG estimates will not match those from the birth certificates exactly, primarily because of

sampling error. They may also differ from Vital Statistics because of differences between the coverage, nonresponse, and measurement features of the two sources of data.

9. What format is used for the public use data set?

The data sets are released in ASCII format and are compatible with several major statistical software systems that permit analysis of complex survey data, including SAS, SPSS, and Stata.

10. How is the continuous pooled data set any different from analyzing any other sample survey?

For the most part, analyzing the pooled data is no different than analyzing a previous NSFG cycle, at least in terms of the application of standard survey estimation software to the data file. Each continuous NSFG data file can be thought of and treated as a single cycle of the NSFG, but the time period to which the results apply must be described accurately.

The continuous NSFG allows a user to obtain 'period prevalence' estimates for the population over a multi-year period. Previous NSFG cycles allowed the user to report estimates for a single year. The continuous NSFG will allow the user to report estimates for a period of a few years. For example, the proportion of women 15–44 who are currently using the oral contraceptive pill may be reported, once the 2009–2010 data are released, for the period from 2006 to 2008, or the period 2009 to 2010, or for the period 2006 through 2010. The first two of these periods may be reported by a user interested in contrasting rates across the US population in each of those time intervals. The third period allows the user to report the rate across a longer time interval, but with greater precision, since the sample size of the pooled data will be larger.

Thus, the continuous NSFG requires reporting results for longer time periods, or for contrasting time periods. It may also be cumulated over time to produce estimates with greater precision. For example, the proportion of Hispanic females using one type of contraception for the period 2006 to 2008 will have about one-half the sample size of the same proportion for the period 2006 to 2010. Cumulating over a longer time period will provide more precise estimates, which will be especially useful for smaller subgroups of interest, at the price of a longer time period reference for the estimate.

In all these estimates, the analyst must use appropriate weights and variance estimates for the specific time period used. The appropriate weights and sampling error codes will be provided with each release of the continuous NSFG that allow proper estimation for different time periods of interest. The presence of alternative time period weights will require users to choose the time period of estimation and the appropriate weight to apply, but the benefits include greater analytical flexibility and larger sample size.

Vital and Health Statistics series descriptions

- SERIES 1. **Programs and Collection Procedures**—These reports describe the data collection programs of the National Center for Health Statistics. They include descriptions of the methods used to collect and process the data, definitions, and other material necessary for understanding the data.
- SERIES 2. **Data Evaluation and Methods Research**—These reports are studies of new statistical methods and include analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory. These studies also include experimental tests of new survey methods and comparisons of U.S. methodology with those of other countries.
- SERIES 3. **Analytical and Epidemiological Studies**—These reports present analytical or interpretive studies based on vital and health statistics. These reports carry the analyses further than the expository types of reports in the other series.
- SERIES 4. **Documents and Committee Reports**—These are final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.
- SERIES 5. **International Vital and Health Statistics Reports**—These reports are analytical or descriptive reports that compare U.S. vital and health statistics with those of other countries or present other international data of relevance to the health statistics system of the United States.
- SERIES 6. **Cognition and Survey Measurement**—These reports are from the National Laboratory for Collaborative Research in Cognition and Survey Measurement. They use methods of cognitive science to design, evaluate, and test survey instruments.
- SERIES 10. **Data From the National Health Interview Survey**—These reports contain statistics on illness; unintentional injuries; disability; use of hospital, medical, and other health services; and a wide range of special current health topics covering many aspects of health behaviors, health status, and health care utilization. They are based on data collected in a continuing national household interview survey.
- SERIES 11. **Data From the National Health Examination Survey, the National Health and Nutrition Examination Surveys, and the Hispanic Health and Nutrition Examination Survey**—Data from direct examination, testing, and measurement on representative samples of the civilian noninstitutionalized population provide the basis for (1) medically defined total prevalence of specific diseases or conditions in the United States and the distributions of the population with respect to physical, physiological, and psychological characteristics, and (2) analyses of trends and relationships among various measurements and between survey periods.
- SERIES 12. **Data From the Institutionalized Population Surveys**—Discontinued in 1975. Reports from these surveys are included in Series 13.
- SERIES 13. **Data From the National Health Care Surveys**—These reports contain statistics on health resources and the public's use of health care resources including ambulatory, hospital, and long-term care services based on data collected directly from health care providers and provider records.
- SERIES 14. **Data on Health Resources: Manpower and Facilities**—Discontinued in 1990. Reports on the numbers, geographic distribution, and characteristics of health resources are now included in Series 13.
- SERIES 15. **Data From Special Surveys**—These reports contain statistics on health and health-related topics collected in special surveys that are not part of the continuing data systems of the National Center for Health Statistics.
- SERIES 16. **Compilations of Advance Data From Vital and Health Statistics**—Advance Data Reports provide early release of information from the National Center for Health Statistics' health and demographic surveys. They are compiled in the order in which they are published. Some of these releases may be followed by detailed reports in Series 10–13.
- SERIES 20. **Data on Mortality**—These reports contain statistics on mortality that are not included in regular, annual, or monthly reports. Special analyses by cause of death, age, other demographic variables, and geographic and trend analyses are included.
- SERIES 21. **Data on Natality, Marriage, and Divorce**—These reports contain statistics on natality, marriage, and divorce that are not included in regular, annual, or monthly reports. Special analyses by health and demographic variables and geographic and trend analyses are included.
- SERIES 22. **Data From the National Mortality and Natality Surveys**—Discontinued in 1975. Reports from these sample surveys, based on vital records, are now published in Series 20 or 21.
- SERIES 23. **Data From the National Survey of Family Growth**—These reports contain statistics on factors that affect birth rates, including contraception, infertility, cohabitation, marriage, divorce, and remarriage; adoption; use of medical care for family planning and infertility; and related maternal and infant health topics. These statistics are based on national surveys of women and men of childbearing age.
- SERIES 24. **Compilations of Data on Natality, Mortality, Marriage, and Divorce**—These include advance reports of births, deaths, marriages, and divorces based on final data from the National Vital Statistics System that were published as *National Vital Statistics Reports* (NVSR), formerly *Monthly Vital Statistics Report*. These reports provide highlights and summaries of detailed data subsequently published in *Vital Statistics of the United States*. Other special reports published here provide selected findings based on final data from the National Vital Statistics System and may be followed by detailed reports in Series 20 or 21.

For answers to questions about this report or for a list of reports published in these series, contact:

Information Dissemination Staff
National Center for Health Statistics
Centers for Disease Control and Prevention
3311 Toledo Road, Room 5412
Hyattsville, MD 20782
1-800-232-4636
E-mail: cdcinfo@cdc.gov
Internet: <http://www.cdc.gov/nchs>

**U.S. DEPARTMENT OF
HEALTH & HUMAN SERVICES**

Centers for Disease Control and Prevention
National Center for Health Statistics
3311 Toledo Road
Hyattsville, MD 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

MEDIA MAIL
POSTAGE & FEES PAID
CDC/NCHS
PERMIT NO. G-284