

THE NLS

The National Longitudinal Surveys (NLS), sponsored by the U.S. Bureau of Labor Statistics (BLS), are a set of surveys designed to gather information at multiple points in time on the labor market experiences of groups of men and women. Each of the cohorts has been selected to represent all people living in the United States at the initial interview date and born during a given period. This selection allows weighted conclusions to be drawn about the sample group that can be generalized to represent the experiences of the larger population of U.S. residents born during the same period. Sample design procedures ensure that the labor market experiences of blacks, Hispanics, youths, women, and the economically disadvantaged can be examined. The NLS program also includes surveys of the children born to women who participate in the National Longitudinal Survey of Youth 1979 (NLSY79). Detailed information is gathered biennially on the child's home environment and cognitive, socioemotional, and physiological development; as they get older, these young adults report on their education, workforce participation, and fertility. This unique set of na-

tional surveys offers researchers the opportunity to study large panels of men, women, and children over significant segments of their lives.

The NLS samples

Each of the NLS cohorts consists of 5,000 or more original members, some of whom have been surveyed over several decades. Table 1.1 summarizes the NLS cohorts, the sizes of the original samples, the span of years over which each group has been interviewed, and the current interview status of each group.

Development of the NLS

The National Longitudinal Surveys of Labor Market Experience began in the mid-1960s. The Office of Manpower Policy, Evaluation, and Research of the U.S. Department of Labor contracted with the Center for Human Resource Research (CHRR) at The Ohio State University to conduct longitudinal studies of the labor market experiences of four population groups:

Table 1.1. The NLS: Survey groups, sample sizes, interview years, and survey status

Survey group	Age cohort	Birth year cohort	Original sample	Initial year / latest year	Number of surveys	Number at last interview	Status
Older men	45–59	4/1/06–3/31/21	5,020	1966 / 1990	13	¹ 2,092	Ended
Mature women	30–44	4/1/22–3/31/37	5,083	1967 / 2003	21	2,237	Ended
Young men	14–24	4/1/41–3/31/52	5,225	1966 / 1981	12	3,398	Ended
Young women	14–24	1943–1953	5,159	1968 / 2003	22	2,859	Ended
NLSY79	14–21	1957–1964	² 12,686	1979 / 2004	21	³ 7,724	Continuing
NLSY79 children	birth–14	—	⁴ —	1986 / 2004	10	³ 3,190	Continuing
NLSY79 young adults	⁵ 15 and older	—	⁴ —	1994 / 2004	6	³ 4,238	Continuing
NLSY97	12–16	1980–1984	8,984	1997 / 2004	8	⁶ 7,756	Continuing

¹Interviews in 1990 also were conducted with 2,206 widows or other family members of deceased respondents.

²After dropping the military (in 1985) and economically disadvantaged nonblack/non-Hispanic oversamples (in 1991), the sample contains 9,964 respondents eligible for interview.

³The latest sample size available is from the 2002 survey.

⁴The size of the NLSY79 child sample depends on the number of children born to female NLSY79 respondents, attrition over

time, and the gradual aging of the children into the young adult sample. The size of the young adult sample depends on the number of children who reach age 15 in each survey year. Information about the number interviewed in each survey is available in chapter 4.

⁵In 1998 only, the young adults eligible for interview were limited to those ages 15 to 20.

⁶The latest sample size available is from round 7.

- Men 45 to 59 years of age—referred to as the “NLS of Older Men”—first conducted in 1966
- Women 30 to 44 years of age—the “NLS of Mature Women”—first conducted in 1967
- Young men 14 to 24 years of age—the “NLS of Young Men”—first conducted in 1966
- Young women 14 to 24 years of age—the “NLS of Young Women”—first conducted in 1968

These four groups of Americans, known collectively as the “Original Cohorts” of the NLS, were selected because each faced important labor market decisions of special concern to policymakers. The Older Men respondents faced decisions about the timing and extent of their labor force withdrawal at retirement age. Mature Women were experiencing a return to the labor force as their children became independent. As the Young Men and Young Women completed their schooling, they began careers or joined the military, married, and started families.

The initial plan called for six interviews over a 5-year period with a nationally representative sample of approximately 5,000 individuals in each group. As the 5-year period ended, relatively high retention rates and the widespread interest generated by these data led to the decision to continue the surveys.

On the basis of a survey of all known NLS data users and the recommendations of a panel of experts convened by the Department of Labor, policymakers decided in 1977 to continue the surveys of the four original cohorts. The Older Men and Young Men cohorts were administered until 1990 and 1981, respectively. The Mature Women and Young Women cohorts were discontinued after the 2003 interviews.

The Department of Labor also decided in 1977 to begin a new longitudinal study of young men and women. This study would replicate the surveys of young men and women that began in the 1960s. The new longitudinal study would help policymakers and researchers evaluate the expanded employment and training programs for youths legislated by the 1977 amendments to the Comprehensive Employment and Training Act (CETA).

This new survey would include a national probability sample of civilian young women and men born in the years 1957 through 1964. The survey included supplemental samples of blacks, Hispanics, and economically disadvantaged non-black/non-Hispanics to facilitate more reliable statistical analyses of these groups. The U.S. Department of Defense provided funding to select an additional sample of young persons serving in the Armed Forces and interview them. The sample of civilian and military youths, called the National Longitudinal Survey of Youth 1979 (NLSY79), was interviewed for the first time in early 1979, when the respondents were ages 14 to 22. The cohort was interviewed annually until 1994 and has been interviewed biennially since then.

The military sample was dropped after the 1984 interviews, and the sample of economically disadvantaged non-black/non-Hispanic respondents was dropped after the 1990 interviews.

The “Children of the NLSY79” began in 1986 and further enhanced the NLS program. With funding from the National Institute of Child Health and Human Development (NICHD) and a number of private foundations, detailed information on the development of children born to NLSY79 women has supplemented the data on mothers and children collected during the main NLSY79. During the biennial interviews of the Children of the NLSY79, interviewers administer a battery of child cognitive, socioemotional, and physiological assessments to NLSY79 mothers and their children. Since 1994, children age 15 and older during the survey year—the “Young Adults”—have replied to a separate survey that contains questions similar to those asked of their mothers. The complete child sample statistically represents the children of women born during the years 1957 to 1964 who resided in the United States in 1978.

In 1997, data collection began for another NLS cohort. The National Longitudinal Survey of Youth 1997 (NLSY97) documents the transition from school to work for a nationally representative sample born in the years 1980 through 1984 (who were ages 12 to 17 during the first round of annual interviews). The NLSY97 includes supplemental samples of blacks and Hispanics to facilitate more reliable statistical analyses of these groups. The NLSY97 enables researchers to examine the transition of these youths from school to the labor market and into adulthood. Information from the NLSY97 allows researchers to compare the progress of this cohort with that of other NLS cohorts.

Purposes and content of the surveys

The primary purpose of the NLS is to collect data on the labor force experiences of adults and young adults. In addition, the surveys have regularly gathered information about a range of factors potentially affecting labor market attachment, including investments in education and training, geographic region of residence, the influence of parents, marital status and family responsibilities, socioeconomic status, work-related attitudes and aspirations, health problems, and job discrimination.

With the advent of the NLSY79 in the late 1970s, the content of the surveys expanded to reflect the interests of governmental agencies other than the Department of Labor. Support from the U.S. Department of Defense made possible the 1979–84 interviews of 1,280 youths enlisted in the military. In 1980, the Departments of Defense and Labor jointly sponsored the administration of the *Armed Services Vocational Aptitude Battery (ASVAB)* to the civilian and military NLSY79 samples. (The Department of Defense sponsored a similar administration of the ASVAB for the NLSY97 cohort

in 1997.) The U.S. Department of Justice sponsored a series of delinquency questions included in the 1980 administration of the NLSY79.

Beginning in 1979, a 5-year cooperative effort of the National Center for Research in Vocational Education and CHRR resulted in a survey of the high schools of civilian NLSY79 respondents and the collection of detailed transcript information on potential high school graduates. In 1981, the National Institute of Education sponsored a set of time-use questions. The National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse have provided funding in a number of years to include questions on alcohol and substance abuse. NICHD has provided funds for the assessments of the children born to female NLSY79 respondents, the development of the fertility and childcare components of the NLSY79, the young adult survey, and a survey conducted in 1995–96 of the schools attended by the children of female NLSY79 respondents.

The 1989 NLS of Mature Women pension matching project was funded by BLS in conjunction with the Women's Bureau and the Pension and Welfare Benefits Administration (now called the Employee Benefits Security Administration) of the U.S. Department of Labor, the Social Security Administration, and the National Institute on Aging. The Social Security Administration also provided financial support for interviews with the Mature Women. The National Institute on Aging funded the 1990 survey of living Older Men respondents and the family members of deceased respondents.

The U.S. Department of Education provided funding for the 1996 and 2000 surveys of high schools that were conducted as part of the NLSY97. The Department of Education also provided funding for the collection and coding of high school transcripts for NLSY97 respondents and to include questions in the NLSY97 about school-to-work programs. The U.S. Department of Justice's Office of Juvenile Justice and Delinquency Prevention has provided funding to include questions in the NLSY97 about criminal and antisocial behavior. NICHD has provided funding to include ques-

tions in the NLSY97 about health, fertility, and social relationships.

Figure 1.1 presents a summary of the topics covered by NLS data. The core repeating modules are supplemented with topical series administered to particular cohorts during selected survey years. All topics are not necessarily available for all survey years or all cohorts; consult the cohort-specific chapters in this *Handbook* or each cohort-specific user's guide for more information.

The broad range of NLS data, the topical expansion of the surveys, and the replication of cohorts across time make the NLS a rich information source for the continued study of many issues. These include life-cycle changes, the family, the aging process, retirement decisions, geographic and occupational mobility, and a host of other topics.

While the NLS data can be used for cross-sectional studies, the longitudinal nature of the data offers significant advantages to researchers interested in causal processes. Event histories covering topics such as employment, education, marriage, and childbearing support a variety of methodological approaches to research. The frequent overlap in data content among cohorts, coupled with the variety of age ranges covered by the different samples, invites cross-cohort comparisons and studies of social change.

For nearly four decades, NLS data have served as an important tool for economists, sociologists, and other researchers interested in the study of earnings, job search and separation, labor supply, labor market inequities, and human capital investments. Researchers also have used these data to study the impact of governmental policies and programs and the effect of various social-psychological factors on labor force participation.

Annotated citations for research using the NLS cohorts are available for review via an Internet bibliographic database (www.nlsbibliography.org). The continued relevance of the NLS for the research community in general, and for policymakers at the Federal, State, and local levels, is evident in the high number of citations added to the list each year. See chapter 7 for more information.

Figure 1.1. NLS data content: Core and supplemental data collections

Core data collections	Supplemental data collections
Labor market experiences	Family background and demographic characteristics
Training investments	Child development
Schooling information	School records, aptitude, and intelligence scores
Health conditions	Attitudes, aspirations, and psychological well-being
Household composition	Military experiences
Marital histories, children, and dependents	Work-related discrimination
Family assets and income	Retirement plans, pension eligibility, and pension plans
Geographic residence and environmental characteristics	Volunteer and leisure-time activities
	Alcohol, cigarette, and substance use
	Delinquent and criminal activities and arrest records
	Household chores, childcare, and care of ill and disabled persons

BLS publishes summaries of NLS data in news releases, *Monthly Labor Review* articles, and other reports.

NLS data sets

The cohort-specific data files summarized in figure 1.2 are available to the public. Each file contains the cumulative record of each respondent through the current release date.

In addition to the main data files, other special data files are available (figure 1.3). These files, designed to be used primarily in conjunction with variables from a cohort's main file, have been constructed from data collected during the main surveys, from supplementary questionnaire data, or from external data sources.

Chapters 2 through 6 of this handbook discuss in detail each NLS cohort and the contents of the data files; information on accessing the data files is found in chapter 8.

Project administration

Responsibility for the administration of the NLS resides with BLS, an agency of the U.S. Department of Labor. Established in 1884, BLS is responsible for the analysis and publication of data on employment and unemployment, prices and living conditions, compensation and working conditions, productivity, occupational safety and health, and employment projections. Its mission is to promote the development of the U.S. labor force by gathering information and disseminating it to policymakers and the public so that they can make more informed, and thus more efficient, choices.

The NLS program supports BLS in this mission. Direction for the NLS is the responsibility of the Director of the National Longitudinal Surveys program. BLS contracts with CHRR to manage the NLS program, share in the design of the survey instruments, disseminate the data, and provide user services. The National Opinion Research Center (NORC) at the University of Chicago works with CHRR to collect data and assist with questionnaire design for the NLSY79, NLSY79 Children and Young Adult surveys, and the NLSY97. The U.S. Census Bureau collected data for the now-discontinued surveys of Mature Women, Young Women, Older Men, and Young Men through a series of interagency agreements with the Department of Labor.

The NLS Technical Review Committee, an advisory body that consists of approximately 15 academic and government researchers in economics, sociology, demography, child development, and survey methodology, provides valuable advice on ways to keep the NLS program useful and relevant for researchers and policymakers. The committee advises the NLS contractors regarding questionnaire design, potential survey topics, research uses, methodological issues, data distribution, and user services.

BLS oversees all aspects of the work undertaken by the other organizations involved in the program. For more information about the NLS program, visit the NLS Internet site at www.bls.gov/nls. You also can contact BLS by e-mail at NLS_Info@bls.gov or by telephone at (202) 691-7410.

Figure 1.2. NLS main data files

Cohort	Period	File contents
Older Men	1966–83 and 1990	Provides the longitudinal record of each respondent for the 1966–83 and 1990 interview years. Includes information collected during the 1990 interviews with the widows or other family members of deceased sample members and cause of death information collected from State vital records departments.
Mature Women	1967–2003	Contains the longitudinal record of each respondent for the 1967–2003 interviews. Supplemental pension plan data are described in figure 1.3.
Young Men	1966–81	Includes the longitudinal record of each respondent for the 1966–81 interview years. Includes information from the separately administered 1968 survey of high schools attended by respondents in this cohort.
Young Women	1968–2003	Contains the longitudinal record of each respondent for the 1968–2003 interviews. Includes information from the separately administered 1968 survey of high schools attended by respondents in this cohort.
NLSY79	1979–2002	Provides the longitudinal record of each respondent for the 1979–2002 interviews. Includes information from the separately fielded 1980 high school survey, the 1980 ASVAB administration, and the 1980-83 transcript data collections. Supplementary data for this cohort can be found in the special data files discussed in figure 1.3.
NLSY97	Rounds 1-7	Contains the record of each youth for all survey rounds. Includes information from each youth interview, as well as the round 1 parent interview and the round 1 screener, household roster, and nonresident roster questionnaire. Initial data from the round 1 ASVAB administration also are included in this data set. Supplementary data for this cohort can be found in the special data files discussed in figure 1.3.

Current status and changes in technology

As the NLS program nears the end of its fourth decade, interviews for the twenty-first round of the NLSY79 ended in the winter of 2005, as did the tenth survey of the children of the NLSY79 and the sixth survey of the NLSY79 Young Adults. The next administration of these surveys is scheduled for 2006. The eighth round of the NLSY97 ended in early summer of 2005, and the ninth round is scheduled to begin in the fall of 2005. The surveys of Mature Women and Young Women ended following the 2003 interviews.

Technological advances have affected the mode of NLS interviews and the media through which NLS data are distributed. The paper-and-pencil survey administrations, used since the inception of the surveys, have been replaced with computer-assisted personal interviews (CAPI). The 1993 survey of the NLSY79 marked the first time that computer-assisted interviews were administered to the full sample of NLSY79 respondents. This event completed a 5-year effort by BLS, CHRR, and NORC to improve the quality and timeli-

ness of NLS data releases. Analyses of two NLSY79 CAPI experiments conducted during 1989 and 1990 suggested higher data quality, improvements in data transfer, and lower data processing costs for CAPI interviews (Baker and Bradburn, 1992; Bradburn, Frankel, et al., 1992; Olsen, 1991; Speizer and Dougherty, 1991). Computer-assisted survey interviewing software also has been used in all rounds of the NLSY97 and was used in the interviews with the NLS of Mature Women and Young Women from 1995 to 2003.

In the NLSY97, questions on sensitive topics such as criminal activity, drug use, and sexual behavior are administered through the use of audio computer-assisted self-interview (ACASI) technology. This technology enables respondents to enter their answers to potentially sensitive questions directly into a computer without an interviewer knowing the responses. Respondents can choose to read the questions from the computer screen or, if they prefer, use headphones to listen to a recording of someone reading the questions as they appear on the screen. With the ACASI

Figure 1.3. NLS special data files

Cohort	Period	File contents
Mature Women Pension Plan File	1989	Includes detailed information on the characteristics of 815 pension plans for which respondents or their husbands were eligible in 1989. These data were coded using the protocol developed for the <i>Survey of Consumer Finances</i> and include plan definitions, benefit formulas, and eligibility requirements.
NLSY79 Children and Young Adults	1986-2002	Contains information about the children born to female NLSY79 respondents. Data were collected during the biennial assessments of each child, which began in 1986, and during interviews of young adults (age 15 and older) beginning in 1994. Information on prenatal care, maternal and child health, household composition, and maternal work history collected during the main surveys of the NLSY79 also is included on the child files.
NLSY79 Work History	1979-2002	Provides a constructed week-by-week longitudinal record of labor force activity for each respondent from January 1978 through the 2002 interview date. Three arrays provide information on the respondent's labor force and military status, usual hours worked, and dual jobs for those respondents working at more than one job during any of the survey weeks. The work history data set also includes all main file data.
NLSY79 Geocode	1979-2002	Identifies the State, county, and metropolitan statistical area of each NLSY79 respondent's current residence; provides selected environmental data for the respondent's county or metropolitan area of current residence. The geocode data also includes all main file data.
NLSY79 Young Adult Geocode	1994-2002	Identifies the State, county, and metropolitan statistical area of each NLS79 respondent's current residence; provides selected environmental data for the respondent's county or metropolitan area of current residence. The geocode data set also includes all of the child and young adult main data.
NLSY79 Women Support Network File	1983-85	Includes details on the geographic proximity of relatives, friends, and acquaintances of female NLSY79 respondents who were interviewed during 1983-85.
NLSY97 Event History	Rounds 1-7	Contains constructed event history variables regarding respondents' employment, schooling, marriages and cohabitations, and participation in government assistance programs. The data set also includes all main file data.
NLSY97 Geocode	Rounds 1-7	Identifies the State, county, and metropolitan statistical area of each NLSY97 respondent's current residence; provides selected environmental data for the respondent's county or metropolitan area of current residence. The geocode data also includes all main file and event history data.

technology, respondents are more likely to answer sensitive questions truthfully than if they were asked to report their answers to an interviewer. Compared with paper-and-pencil self-administered questionnaires, ACASI technology improves response quality by reducing data-entry errors, permitting more complex questionnaire design and minimizing errors due to respondent literacy problems or visual impairment.

NLS data sets can be downloaded for free from the Internet at www.bls.gov/nls. For a fee, users can order a CD that includes data for all NLS cohorts. The file downloads and cross-cohort CD include Windows software with a user-friendly interface that allows users to peruse the variables for a given cohort, select variables of interest, and create ASCII extract files. The software also provides the information needed to read these data files into SAS, SPSS, or STATA applications.

Organization of this *Handbook*

The rest of this publication comprises nine chapters:

- Chapters 2 through 6 contain overviews of the NLSY97, the NLSY79, the NLSY79 children and young adults, the Mature and Young Women, and the Older and Young Men. Each chapter provides information on the samples, the interviews, and the major data elements available for each cohort.
- Chapter 7 presents a sampling of recent research based on data from the NLS.
- Chapter 8 describes the NLS data sets, the search and extraction software, and the comprehensive documentation available to researchers.

- Chapter 9 explains the procedures that have been implemented to protect respondent confidentiality and obtain the informed consent of respondents to participate in each survey.
- Chapter 10 directs readers to other publications, manuals, and reports that provide more information on the NLS.

References

Baker, Reginald P. and Bradburn, Norman M. "CAPI: Impacts on Data Quality and Survey Costs." In *Proceedings of the 1991 Public Health Conference on Records and Statistics*. Washington, DC: U.S. National Center for Health Statistics (1992): 459–64.

Bradburn, Norman M.; Frankel, Martin R.; Baker, Reginald P.; and Pergamit, Michael R. "A Comparison of Computer-Assisted Personal Interviews (CAPI) with Paper-and-Pencil Interviews (PAPI) in the National Longitudinal Survey of Youth." NLS Discussion Paper 92-2. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 1992.

Olsen, Randall J. "The Effects of Computer Assisted Interviewing on Data Quality." Columbus, Ohio: CHRR, The Ohio State University, 1991.

Speizer, Howard and Dougherty, Doug. "Automating Data Transmission and Case Management Functions for a Nationwide CAPI Study." In *Proceedings of the 1991 Annual Research Conference*. Washington, DC: U.S. Census Bureau (1991): 389–97.