



Bibliographies and Data Sources

From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Occupation and Health Data Guide



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Hyattsville, Maryland
May 1993
DHHS Publication No. (PHS) 93-1308

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Occupation and health data guide from the National Center for Health Statistics 1963-92

by Diane K. Wagener, Ph.D.
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The National Center for Health Statistics (NCHS) is responsible for producing vital and health statistics for the U.S. population. The diversified program of health surveys and inventories includes the compilation of data and statistics on environmental, social, and other health hazards as well as a wide range of health outcomes. This guide presents a summary of the NCHS data gathered during the last 29 years on work status, job descriptions, factors related to work history, work exposures and other characteristics, health status attributed to work, and work status or effects attributed to health. Most of the data are from public-use data tapes and some are in published reports. In all data systems, there is a great deal of additional health and risk factor information available for each subject. In addition, several of the surveys have been matched to the National Death Index to determine the vital status of respondents at later dates. Hence, the information listed in this guide can be linked to a wide variety of additional information.

The main purposes of this guide are to identify NCHS data on occupation and health for the research and public health communities and encourage further use of these data bases. This listing is intended as a general guide for the user. Limited data system characteristics are described that will give the user some sense of the extent of the survey. However, it is important for users to get detailed information on the survey and questions before determining whether the data are appropriate for their particular use. NCHS references are listed that provide some of the information needed by the user. In addition, questionnaires can be obtained during the collection period for any of the surveys, allowing the user to determine whether future appropriate data will be available once the editing process is completed.

This guide lists only those data systems and data years that contain data of relevance to this guide. The guide also includes a listing of publications from the NCHS Series reports and the Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report journal, which contain analyses that specifically address occupational health issues.

For more detailed information about any of the data sets described or for assistance in obtaining the public-use data tapes or published reports mentioned, please contact the following office:

Scientific and Technical Information Branch
National Center for Health Statistics
6525 Belcrest Road, Room 1064
Hyattsville, Maryland 20782
(301) 436-8500

NOTES: This guide was prepared with the assistance of Mark S. Eberhardt, Ph.D., Parivash Nourjah, Ph.D., and Lisa Streisfeld. Some information in this publication is projected.

Symbols in body of tables

X	Question asked or fact can be determined
—	Question not asked or data not available
AD	Advance Data, number (see references)
DHIS	Public-use data tape available from the Division of Health Interview Statistics, NCHS, 6525 Belcrest Rd., Hyattsville, MD 20782. (301) 436-7087
Future	Data to be available in future from NCHS
MMWR	Morbidity and Mortality Weekly Report (see references)
NTIS	Public-use data tape available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. (703) 487-4807
OAE	Public-use data tape available from the Office of Analysis and Epidemiology, NCHS, 6525 Belcrest Rd., Hyattsville, MD 20782. (301) 436-5975
PHR	Public Health Reports (see references)
Special	Data tape available by special arrangement with NCHS. Call (301) 436-8500 for information.
Tape	Public-use data tape documentation, survey (see references)
Vital	<i>Vital Statistics of the United States</i> (see references)
VH	Vital and Health Statistics, series and number (see references)
WP	Working papers from NCHS. Contact Office of Analysis and Epidemiology, NCHS, 6525 Belcrest Rd., Hyattsville, MD 20782. (301) 436-7032 (see references)

Occupation and health data sources: National Vital Statistics System

Measure	Mortality		Occupational mortality	
	Detail underlying cause of death data	Multiple cause of death data	Detail underlying cause of death data	Multiple cause of death data
Data system characteristics:				
Data years	1968–present	1968–present	1984–present	1984–present
Type of administration	Coded from State death certificates		Coded from State death certificates	
Approximate number per year	2,000,000	2,000,000	615,000 ¹	615,000 ¹
Population covered	All deaths reported through the death registration system for the entire United States		All deaths reported through the death registration system for the reporting area ²	
Job description:				
Usual occupation of decedent	–	–	X	X
Usual business or industry of decedent	–	–	X	X
Factors related to work history:				
Place of residence (State, county, or city)	X	X	X	X
Health status attributed to work:				
Place of fatal accident ³	X	X	X	X
Injury at work (yes or no)	X ⁴	X ⁴	X ⁴	X ⁴
NCHS references:				
a. Certificate and data preparation.		Vital Statistics of the United States ⁵		
b. Selected reports with occupational data analyses	Health U.S. ⁶	Health U.S. ⁶	Manual–19	Manual–19
Data availability	NTIS	NTIS	NTIS ⁷	NTIS ⁷

¹Approximate number of deaths to persons 20 years and over for 21 reporting States in 1989.

²The reporting area for 1984 was (12 States); 1985 (16 States); 1986 (18 States); 1987 (19 States); 1988 (22 States); and 1989 (21 States).

³Place of Injury is coded from death certificate for accidental poisoning by drugs, medicaments, and biologicals (ICD–9 Nos. E850–E858), accidental falls (ICD–9 Nos. E880–E888), and accidents caused by fire and flames (ICD–9 Nos. E890–E899). The places of injury include: home; farm; mine and quarry; industrial place and premises; place for recreation and sport; street and highway; public building; residential institution; other specified places; and unspecified place.

⁴Information will be available beginning for 1994 data year.

⁵Annual volumes of *Vital Statistics of the United States* include information in the Appendices regarding the death certificates and data collection methods.

⁶Includes a table of deaths among men aged 25 years and older due to selected occupational diseases.

⁷Data tape for 1984 is available from the Division of Vital Statistics, National Center for Health Statistics.

Occupation and health data sources: Vital records data bases

Measure	1963 National Natality Survey	1964-66 National Natality Survey and/or National Infant Mortality Survey	1968 National Natality Survey	1969 National Natality Survey	1972 National Natality Survey
Data system characteristics:					
Type of administration		Mailed interview of mothers			
	Also collected data from dentist, medical facility, and physician	-	-	-	Also collected data from hospitals and prenatal care providers
Approximate number interviewed	3,205	9,252	3,199	3,109	4,096
Population sampled.		Legitimate U.S. live births			
Oversampled populations	-	-	Non-white	Non-white	Non-white
Job description:					
Work status during pregnancy	X	X	X	X	X
Work status since birth.	-	-	X	X	-
If so, baby's age when returned to work	-	-	X	X	-
If so, currently working	-	-	X	X	-
If not, plan to work	-	-	X	X	-
If so, when	-	-	X	X	-
Work at any time during recent pregnancy.	-	-	X	X	-
If so, months pregnant when stopped working	-	-	X	X	-
Work between this birth and previous birth.	-	-	X	X	-
Work between marriage and first birth.	-	-	X	X	-
Work before first marriage.	-	-	X	X	-
Father's work status at child's birth . .	X	-	-	-	-
Father in armed forces	-	-	X	X	-
Father's current or last occupation . . .	X	-	-	-	-
NCHS reference:					
a. Questionnaire and survey description	VH22-3 VH22-1	VH22-8 VH22-12	VH21-32	VH21-32	VH21-32
Data availability	-	NTIS	NTIS	NTIS	NTIS

Occupation and health data sources: Vital records data bases—Con.

Measure	1980 National Natality Survey/ National Fetal Mortality Survey	1988 National Maternal and Infant Health Survey ¹	1991 Longitudinal Followup
Data system characteristics:			
Type of administration	Mailed interview to mothers, hospitals, or attendants at delivery		Interview with mothers mailed to hospitals and pediatricians
Approximate number interviewed	16,327 ²	20,000 ³	Mothers of 9,400 live births, 1,000 infant deaths, and 1,000 fetal deaths
Population	Legitimate births and fetal deaths	All live births and fetal and infant deaths	Linked with 1988 National Maternal and Infant Health Survey
Oversampled population.	Low birth weight	Low birth weight in National Natality Survey, and black persons in National Maternal and Infant Health Survey	See 1988 survey
Job description:			
Work status during pregnancy	X	X	—
If so, months pregnant when stopped working	X	—	—
Work status during the 12 months prior to delivery	X	X	—
Work status last month.	—	—	X
Self-employed during past 12 months if not now working.	—	—	X
Occupation (last 12 months)	X	X	X
Industry (last 12 months)	X	X	X
Major activity	X	X	X
Class of employee ⁴	X	—	—
Number of hours per week	X	—	—
Number of days per week.	X	—	—
Father's work status during 12 months prior to delivery	—	X	—
Anybody currently living with mother self-employed in past 12 months. . . .	—	—	X
Father's occupation (last 12 months) . .	X	X	X ⁵
Father's industry (last 12 months)	X	X	X ⁵
Father's class of employee	X	—	—
Father's number of hours per week. . . .	X	—	—
Father's number of days per week	X	—	—
Father's time of day begin work	X	—	—

Occupation and health data sources: Vital records data bases—Con.

Measure	1980 National Natality Survey/ National Fetal Mortality Survey	1988 National Maternal and Infant Health Survey ¹	1991 Longitudinal Followup
Factors related to work history:			
Work exposure to radiation (radioactive isotopes or elements) . . .	X	—	—
Father's work exposure to radiation . . .	X	—	—
NCHS references:			
a. Questionnaires and survey description	VH2-100	—	Future
b. Selected reports with occupational data analyses	Health-83	—	—
Data availability	NTIS	NTIS	Future

¹The National Natality Survey, the National Fetal Mortality Survey, and the National Infant Mortality Survey are collectively referred to as the National Maternal and Infant Health Survey (NMIHS).

²Questionnaires mailed to a sample of hospitals, attendants, and providers of radiation, regardless of marital status of the mother. Mother interviews include 9,941 mothers of live births and 6,386 mothers of late fetal deaths.

³The 1988 National Maternal and Infant Health Survey includes the same three components as earlier surveys (National Natality Survey, National Infant Mortality Survey, and National Fetal Mortality Survey); 9,953 live births, 5,332 infant deaths, and 3,309 fetal deaths.

⁴Includes private company, Government employee, self-employed, work without pay, never worked, veteran.

⁵Or anybody living with mother.

Occupation and health data sources: Vital records data bases

Measure	National Mortality Followback Survey	
Data system characteristics:		
Survey dates	1961	1986
Type of administration	Mailed interview ¹	
Approximate number of respondents	5,154	18,700
Population sampled.	All ages	Ages 25 years and over
		U.S. resident deaths
Oversampled populations	—	(²)
Job description:		
Youngest age for occupation question	16	25
Work status (ever worked)	—	X
Work status 12 months prior to death ³	X	—
Longest occupation.	—	X
Longest industry.	—	X
Number of years in this kind of work	—	X
Active duty in armed forces at time of death	—	X
Usual occupation	—	X ⁴
Usual industry	—	X ⁴
Work status of spouse (ever worked)	—	X
Longest occupation of spouse	—	X
Longest industry of spouse	—	X
Factors related to work history:		
Time before death, person last worked.	—	X
Ever active duty in armed forces.	—	X
Health status attributed to work:		
Place of fatal accident ⁵	X	X
Work status or effects attributed to health:		
Stopped working because of health.	—	X
NCCHS references:		
a. Questionnaire and survey description	VH1-23	VH1-23 TAPE-MFS
b. Selected reports with occupational data analyses	—	AD-180
Data availability	Special	NTIS

¹Interviews mailed to surviving relative or other informant and to hospital or facility.

²Approximately 2,500 certificates selected with certainty for following strata: deaths due to ischemic heart disease for males ages 25 through 44 and for females ages 25 through 54; asthma deaths; all deaths of American Indians, Aleutians, or Eskimos; selected cancer deaths for specific age and sex groups (includes nasopharynx, small intestinal, liver, nasal, male breast, and other endocrine cancers).

³Includes working, retired, or something else.

⁴Available on approximately 20 percent of the deaths.

⁵Includes: home; farm, mine and quarry; industrial place and premises; place for recreation and sport; street and highway; public building; resident institution; other specified places; and place of accident not specified.

Occupation and health data sources: National Health Interview Surveys

Measure	1963	1964	1965	1966-81	1982-94
Data system characteristics:					
Type of administration			Household interview		
Approximate number of households	42,000	42,000	42,000	41,000	41,000 ¹
Approximate number of respondents (all ages)	134,000	134,000	134,000	122,000	106,000 ¹
Population sampled.		Civilian, noninstitutionalized, United States			
Oversampled population.	-	-	-	-	(²)
Job description:					
Youngest age for occupation question . . .	17	17	17	17	18
Major activity of respondent ³	X ⁴	X ³	-	X	X ⁵
Work status (current in last 2 weeks)	X	X	X	X	X
Occupation (current in last 2 weeks)	X	-	-	X	X
Industry (current in last 2 weeks)	X	-	-	X	X
Class of employee ⁶	X	X	-	X	X
Factors related to work history:					
Rural or urban location of home	X	X	X	X	X
Farm residence ⁷	X	X	X	X	X
Family income	X	X	X	X	X
Above or below poverty threshold	-	-	-	-	X
Household members' occupations ⁸	X	X	X	X	X
Health status attributed to work:					
Place of accident ⁹	X	X	X	X	X
Work status or effects attributed to health:					
Work loss (days in past 2 weeks)	X	X	X	X	X
Limitation of major activity	X	X	X	X	X
NCHS references:					
a. Questionnaire and survey description	VH10-CE VH1-11	VH10-CE VH1-11	VH10-CE VH1-11	VH10-CE VH1-11 VH1-18	VH10-CE VH1-18
b. Selected reports with occupational data analyses	VH10-21	-	VH10-47	VH10-68 VH10-133	VH10-168 VH10-170 AD-126 MMWR-37 MMWR-41
Data availability	Special	Special	Special	(¹⁰)	NTIS

¹Samples were reduced in 1985 and 1986. The samples were 75 percent of the mean size in 1985 and 50 percent of the mean size in 1986.

²For the data years 1985-94, black persons have been oversampled.

³Includes: housework, student, self-employed, retired, work for a company, armed forces or reserves.

⁴Does not include a student or retirement category.

⁵Does not include a retirement category.

⁶Includes employed by: private company, Federal, State, or local government; self-employed; work without pay; never worked; veteran.

⁷This is strictly a residential variable. Note, all farm residents are not farmers and all farmers do not necessarily live on farms. Farms are determined by size of property and sale of products.

⁸Obtained by linking records with same household identification number.

⁹Includes: home (inside or on adjacent premises); street and highway (including roadway and public sidewalk); farm industrial place; moving vehicle; school; place of recreation and sports; at work (not applicable if in the armed forces).

¹⁰Data years before 1969 available as special tapes from Department of Health Interview Statistics. After 1968, data tapes are available from National Technical Information Service.

Occupation and health data sources: National Health Interview Surveys

[Supplementary sections and special data items that contain job-related information, 1973–92]

Topic	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Occupation, socioeconomic, and insurance:										
Currently employed supplement	—	X	—	—	—	—	—	—	—	—
Health Insurance	—	—	X	X	—	X	—	X	—	X
Income	—	—	—	—	—	—	—	—	—	—
Longest job supplement	—	—	—	—	—	—	—	X	—	—
Lost income	—	—	—	—	X	—	—	—	—	—
Occupation and retirement—SOA ¹	—	—	—	—	—	—	—	—	—	—
Occupational exposure	—	—	—	—	—	—	—	—	—	—
Occupational safety and health.	—	—	—	—	—	—	—	—	—	—
Residential mobility	—	—	—	—	—	—	—	X	—	—
Workplace tobacco smoke	—	—	—	—	—	—	—	—	—	—
Health conditions and risk factors:										
Accident supplement										
Unintentional injuries.	—	—	X	—	—	—	—	—	—	—
Alcohol	—	—	—	—	—	—	—	—	—	—
Assistive devices	—	—	—	—	—	—	—	—	—	—
Child health.	—	—	X	X	—	—	—	—	X	—
Diabetes.	—	—	—	X	—	—	—	—	—	—
Hypertension.	—	X	—	—	—	—	—	—	—	—
Mental health.	—	—	—	—	—	—	—	—	—	—
Other chronic disabling conditions	—	—	—	—	—	—	—	—	—	—
Stress	—	—	—	—	—	—	—	—	—	—
Preventive care:										
AIDS knowledge and attitudes	—	—	—	—	—	—	—	—	—	—
Cancer supplements	—	—	—	—	—	—	—	—	—	—
Dental care	—	—	—	—	—	—	—	—	—	—
Doctor services	—	—	—	—	—	—	—	—	—	—
Exercise	—	—	—	—	—	—	—	—	—	—
Health habits	—	—	—	X	X	—	—	—	—	—
Health promotion and disease prevention.	—	—	—	—	—	—	—	—	—	—
Home care	—	—	—	—	—	—	X	X	—	—
Medical care	—	X	—	—	—	—	—	—	—	—
Medical choice.	—	—	—	—	—	—	—	—	—	—
Physical activity	—	—	—	—	—	—	—	—	—	—
Physical fitness	—	—	X	—	—	—	—	—	—	—
Supplement on aging ²	—	—	—	—	—	—	—	—	—	—

Occupation and health data sources: National Health Interview Surveys—Con.

[Supplementary sections and special data items that contain job-related information, 1973–92]

Topic	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Occupation, socioeconomic, and insurance:										
Currently employed supplement	—	—	—	—	—	—	—	—	—	—
Health insurance	X ³	X ⁴	—	X	—	—	X	—	—	—
Income	—	—	—	—	—	—	—	X	X	—
Longest job supplement	—	—	—	X	—	—	—	—	—	—
Lost income	—	—	—	—	—	—	—	—	—	—
Occupation and retirement—SOA ¹	—	X	—	—	—	—	—	—	—	—
Occupational exposure	—	—	—	—	X ⁵	—	—	—	—	X
Occupational safety and health	—	—	X ⁶	—	—	X	—	—	X	X
Residential mobility	—	—	—	—	—	—	—	—	—	—
Workplace tobacco smoke	—	—	—	—	—	—	—	—	—	X
Health conditions and risk factors:										
Accident supplement										
Unintentional injuries	—	—	—	—	—	—	—	—	—	—
Alcohol	X	—	—	—	—	X	—	—	—	—
Assistive devices	—	—	—	—	—	—	—	X	X	—
Child health	—	—	—	—	—	X	—	—	X	—
Diabetes	—	—	—	—	—	—	X	—	—	—
Hypertension	—	—	—	—	—	—	—	—	—	—
Mental health	—	—	—	—	—	—	X	—	X	—
Other chronic disabling conditions	—	—	—	—	—	—	—	—	X	—
Stress	—	—	X ⁶	—	—	—	—	X ⁶	—	—
Preventive care:										
AIDS knowledge and attitudes	—	—	—	—	X ⁷	X	X	X	X	X
Cancer supplements	—	—	—	—	X ⁷	—	—	—	—	X
Dental care	—	—	—	—	—	—	X	—	—	—
Doctor services	X	—	—	—	—	—	—	—	—	—
Exercise	—	—	X ⁶	—	—	—	—	X ⁶	—	—
Health habits	—	—	X ⁶	—	—	—	—	X ⁶	—	—
Health promotion and disease prevention	—	—	X	—	—	—	—	X	X	—
Home care	—	—	—	—	—	—	—	—	—	—
Medical care	—	—	—	—	X	—	—	—	—	—
Medical choice	—	—	—	—	—	—	—	—	—	—
Physical activity	—	—	—	—	—	—	—	—	X	—
Physical fitness	—	—	—	—	—	—	—	—	—	—
Supplement on aging ²	—	X	—	X	—	X	—	X	X	—

¹Supplement on Aging, see footnote 2.

²Includes information on family structure, relationships, support and living arrangements, community and social support, occupation and retirement, conditions and impairments, activities of daily living, incidental activities of daily living, nursing home stays, help with care, hospice, health opinions, and supplementary conditions.

³For quarters 3 and 4 of the survey.

⁴Information is found in the basic questionnaire of the survey.

⁵Included in Cancer Supplements.

⁶Included in the Health Promotion and Disease Prevention Supplement.

⁷Includes Cancer Control file and Epidemiology file.

Supplemental sections relevant to job-related health and occupation issues

Certain supplements and special data items in the National Health Interview Survey contain questions related to health and occupation. The table on the preceding two pages is a listing of these supplementary data, listed by the name of the supplement or special data section. Descriptions of the type of data follow in an annotated form. These only describe the information relevant to occupation and health. Data tapes for most of the supplements include much of the information (relevant to health and occupation) from the core of the Survey. In addition, information from all data tapes in a given survey year can be linked by the unique person ID. The numbers of people interviewed for the supplements usually are not as many as those interviewed for the core questionnaire.

Descriptions of information available in the supplements

Longest job information, including last (in some instances) and longest job of the currently employed and unemployed persons, is available from the **Currently Employed Supplement** (1974), **Longest Job Supplements** (1980, 1986), the Epidemiology file of the **Cancer Supplement** (1987), and **Occupational Health Supplement** (1988). Information is broken into term length of position, type of industry, and occupation title.

The **Residential Mobility** supplement (1980) provided information on the reasons people move. These encompassed employment, retirement, and health justifications. Also available were present employment activity compared with a year ago, full- or part-time work since the age of 65 years, worked since 1 year ago, and the number of weeks worked.

Under the **Income** supplement (1990, 1991), data were collected on insurance coverage, earnings before deductions, receipt of retirement funds, and receipt of disability compensation. Questions were asked if an employer or union provided insurance and what part of the plan they paid (1991). Amount of income received from self-employment was collected—as well as any supplementary funds from Social Security, public assistance, welfare payments, food stamps, Railroad Retirement, and Supplemental Security Income.

The **Occupational Health Supplement** (1988) is an extensive questionnaire, containing information on the respondent's longest job, as well as the current job status, back pain, hand discomfort, work injuries, skin conditions, eye-, nose-, and throat-irritation, other chronic conditions, and smoking. Respondents were asked if they ever stopped working at a job or changed jobs because of the various health conditions. The supplement also contained information on whether smoking was allowed in the workplace and if it caused discomfort to the respondent. The **Occupational Exposure Supplement** (in the Cancer Control file of the 1987 **Cancer Supplement**), the **Occupational Safety and Health Supplement** (1991), and the **Workplace Tobacco Smoke Supplement** (1992) also contains information on whether the person is exposed to smoke in the workplace and whether smoking is allowed.

Exposures to substances on the job were included in the **Health Promotion and Disease Prevention** (1985), **Occupational Exposure** (1987, 1992), and **Occupational Health Supplements** (1988). The 1985, 1987, and 1992 data were regarding general

exposures at work. The 1988 data asked if specific groups of substances got on hands and arms. In the 1992 supplement, several questions addressed the availability and use of protective equipment on the job. The 1992 supplement also asked whether the respondent was exposed to radiation.

In the Occupational Safety and Health section of the **Health Promotion and Disease Prevention Supplement** (1991), length of time at the present job and the number of hours worked each week was gathered. Respondents were asked if they had to drive a motorized vehicle as a part of their position. Relevant questions included type of vehicle, number of hours per week, and employers' requirements for safety devices such as helmets or seatbelts. Details concerning a description of the work area of the employee and the concentration of ambient smoke were obtained. Respondents were asked if their office had a smoking policy, where smoking was permitted (public lobbies, restrooms, lunchrooms, or office areas), did their employer provide a quit-smoking program, and if their health insurance would cover any part of the cost of a quit-smoking program. Other preventive health care questions asked if the employer provided any exercise programs or facilities for the respondent. The **Exercise** supplement (1990), the **Physical Fitness** supplement (1975), and the **Physical Activity** supplement (1991) inquire to the amount of physical labor required at the workplace. Data are collected on how much a respondent exercises daily.

The **Occupation and Retirement** supplement (1984) asks the following questions: has the respondent ever worked at a job or business, has respondent worked since age 45, has respondent worked in the past 12 months and, if so, for how many weeks. Information is contained on the respondent's perception of retirement, including whether the respondent could work if a job or business was available or would want to work. These same questions are asked in the four versions of the **Longitudinal Study of Aging—Supplement on Aging** (1986, 1988, 1990, and 1991). However, the retirement status is not requested in the 1990 version. Other relevant questions in the **Supplement on Aging** ask about specific limitations with activities of daily living. Some of these are actions that may be performed in a work environment. Examples include how much difficulty does the respondent have while standing or sitting for at least 2 hours. Data also include the number of times a respondent retired, how long since respondent retired, did the respondent retire because of health, and did the respondent retire because of work-related health problems. Information is available on receipt of retirement income, Social Security, Railroad Retirement, military, veterans pension, union, private employer, and Government-employee pension plan. Respondents were asked if they received disability from any sources due to their own or survivor-dependent status. Much information concerning health conditions is contained in the status of limitations in activities of daily living.

The **Accident** supplement (1975) involves questions of work-loss days in past 2 weeks, place of accident (including work), and type of activity when accident occurred (for example: working; recreation participant; recreation spectator; traveling; performing maintenance—including outdoor, structural, or mechanical; cooking; housework; farming; driving; smoking; and weather contributing factors). Unintentional head injuries occurring at work, with information on whether or not the individual lost consciousness, and the nature of the accident were evaluated in the **Health Promotion and Disease Prevention Supplement** (1991).

Health insurance (1975, 1976, 1978, 1980, 1982, 1986, and 1989) questions phased in and out of the NHIS core survey and supplements, although the questionnaire has not greatly changed. Details include how primary, secondary, and tertiary insurance plans were obtained—through a private group, health maintenance organization, Blue Cross/Blue Shield Plan, prepaid plan, or union- or employer-sponsored plans. Questions on degree of monetary coverage and types of plan (for example, Blue Cross/Blue Shield) are also asked (1980). Reasons for no health insurance were categorized as unemployment, poor health, no belief in insurance, dissatisfaction with previous insurance, expense, medical coverage through Medicare, Medicaid, welfare, military care, veterans' benefits, or professional courtesy (1976, 1978). Data are also available concerning receipt of military pensions by veterans and their dependents (1978). Primary plan to which a person belongs, policyholder or subscriber, and length of time belonging to a plan are also available. Questions were asked whether respondents received Supplementary Security Income, Aid to Families With Dependent Children, or Aid to Dependent Children assistance. Armed forces disabilities are recorded with their respective VA compensation for service (1982). The 1983 NHIS survey contains data on the number of times a person was laid off or lost job in the past 12 months. Followup questions provide data on loss of health insurance coverage due to layoffs and unemployment. The 1984 supplement also includes further information on receipt of unemployment insurance or participation in Public Assistance health insurance coverage. The **Cancer Supplement** (1992) Cancer Control file includes questions regarding job-related long-term disability plans covering cancer.

The **Health Promotion and Disease Prevention** supplements (1985, 1990, and 1991) contain very specific questions linking occupation, exposures, and health. The 1990 survey did not contain occupational health as a subject, but the health status and risk behavior information can be linked to the current occupation of the respondent (obtained from the core questionnaire). Degree and effect of stress are incorporated into the data set. Respondents were then asked whether and where they had sought help with stress (for example, a counselor at work). Amount of physical work required on the job and respective hours spent per day was gathered from the respondents. Further inquiries included if work conditions endangered one's health, if a worker was exposed to a risk of an accident, and, if so, what risk (1985). Information collected contained exposures to substances in the present job, what substances, and perceptions of how that substance endangers the respondent's health (1985 and the **Cancer Supplements** of 1992).

In the 1977 supplement on **Health Habits**, data are available on the respondent's receipt of worker's compensation, disability payments or benefits, the number of months during the past year in the present job, and the number of work-loss days in the past 12 months.

In the **Alcohol** supplement (1982, 1983), respondents were asked if they ever had job/work difficulties related to drinking within the past 12 months. Data also were gathered on injuries related to drinking.

The **Medical Care** supplement (1974, 1987) asks for method of referral and the place a physician was seen in the past 12 months—a company or industry clinic was included in the response categories. Sources of payment of doctors' bills consisted of self, family, Social Security, Medicare, health insurance, worker's compensation, accident insurance (carried by family or person outside of the family), armed forces

dependent paid-CHAMPUS, veterans' benefits, Medicaid, welfare, professional courtesy, employer, company doctor, union, or other insurance. Availability of clinical and preventive services at the company or industry are asked in the **Cancer Supplement** (1992).

The **Dental Care** supplement (1989) data include whether the individual missed time from work because of dental problems or dental visits. In the **Doctor Service** supplement (1983), information on reasons for doctor visits includes health insurance requirements. The **Assistive Devices** supplement (1990) contains data on device use at work and payment for the device by employer, industry, or respondent.

Additional periodic questions were inserted into the core questionnaire before 1973. Some of these provide data about specific medical conditions affecting occupation. Almost all document the degree of limitation of an activity due to the problem. In the 1969 questionnaire, respondents were asked if arthritis has ever caused them to receive special job training, to change positions, or to leave a job due to difficulties. The data include whether people have worked since the onset of arthritis and have their personal incomes decreased. In addition, employer response for vocational referral, medical referral, rehabilitative therapy referral, and financial assistance is recorded. Diabetes data (1965, 1976, and 1989) document the degree of restricted activity and number of work days lost in the past 2 weeks due to the condition. (This information is also available from the core questionnaire each year.) Respondents reported if they had applied for a job in the past 5 years and whether they had obtained the position. Information was also gathered if health problems were the grounds for a person not obtaining a job to which he had applied (1976). In the **Chronic and Disabling Conditions** supplement (1991), data include specific difficulties in activities due to any physical or mental conditions. (Most of the activities were of daily living but include walking, heavy housework, and managing money.) One response for type of health care center utilized was an industry or company clinic.

The supplement on **Hypertension** (1974) asks whether insurance covered the condition, doctor visits, and surgery. (Please see supplements on health insurance for a better description.) Respondents estimated the work-loss days in the past 2 weeks due to this condition. The **Mental Health** supplement (1989, 1991) also questions whether the health disorder limits the amount of work of a respondent. Specific conditions documented include boredom and restlessness (1991). In the supplement on **Stress** (1985, 1990), respondents were asked how much they had experienced in the past 2 weeks and in the past year. They were also asked if they have obtained help (including help from a counselor at work) and what steps they had taken for reduction.

The **Home Care** (1968, 1977, 1979, and 1980) supplement contains limited information in the occupation and health data base. Insurance, welfare agency, employer, or agency responsibility in payment of home health care are included. Additional questions added to the person section in the core (lost income data) (1968, 1977) quantify the loss of income from work-absentee days. The data also encompass information on sick leave plans, insurance payment for work loss, and receipt of full days compensation for work loss. The 1977 supplement asked if a person was limited in kind or amount of activity (this includes occupation as an activity) due to emotional or nervous conditions. Respondents reported if they had received job counseling or guidance, vocational training, or job-placement services in the past year. Response

data contain whether employees had received, were helped by, now need, or had sought these services. The supplement to the condition section (**Medical Choice**) (1973) contains information on how medical attention was chosen by the respondent: care of another doctor, relative, friend, medical bureau, telephone directory, by default (no other doctor was available in the area), an organization, place of employment, or school.

Child Health (1975, 1976, 1981, 1988, and 1991) requests the education, usual activity, employment status, and occupation of the primary caretaker if the child is under 15 years. The 1988 supplement qualified this information with questions of employment status of the primary care giver and hours worked within the past 4 weeks. The usual type of child care included day care centers, baby sitters, relatives, and direct parent care for child while working at home and while working outside of the home. Employment status includes descriptions of layoff, unemployment, searching for work, as well as currently employed within the past 2 weeks. The social effects of a child's ill health may result in a family member taking, quitting, changing, or refusing a job. This information is also recorded for family members.

The **AIDS Knowledge and Attitudes** supplement (1987, 1989, 1990, 1991, and 1992) asks respondents where they would obtain information and testing for AIDS—via a company or industry clinic is one possible response. Respondents were asked of their likelihood of getting AIDS by working near someone with AIDS, by using public toilets, and by being coughed/sneezed on by someone with AIDS. The list of possible rationales for not being tested for AIDS includes fear of losing job, insurance, or housing if results were positive. The list of possible reasons for being tested includes application for health and life insurance, employment, military induction, and military service (1991).

Occupation and health data sources: National Health Examination and Hispanic Health and Nutrition Examination Surveys—Con.

Measure	National Health Examination Survey		Hispanic Health and Nutrition Examination Survey
	Cycle I	Cycle III	
Data system characteristics:			
Survey dates	1960-62	1966-70	1982-84
Type of administration	Exam and interview of people selected from household		
Number of subjects selected	7,710 ¹	7,518 ¹	13,689
Number of examinees	6,672	6,768	11,653
Population sample	Coterminalous U.S.	Entire U.S. civilian, noninstitutionalized	Hispanics, selected areas
Oversampled	-	-	(²)
Job description:			
Ages for occupation questions	18-79	12-17	17-74
Major activity of respondent	X ³	-	X
Occupation (last 2 weeks)	X	-	X
Industry (last 2 weeks)	X	-	X
Class of employee	X	-	X
Employment status (last 2 weeks)	X	X ⁴	X
Farm work description	-	-	X ⁵
Ever worked—			
as pesticide applicator	-	-	X
in pesticide processing plant	-	-	X
Factors related to work history:			
Rural or urban location of home	X	X	-
Veteran status	X	-	X
Farm residence	X	-	X
Work pension	-	-	X ⁶
Income source	-	-	X ⁷
Insurance type	-	-	X ⁸
Work exposures or characteristics:			
Physical activity at work	-	-	X ⁹
Pesticide exposure	-	-	X ^{9,10}
Use of protective equipment at work	-	-	X
Health status attributed to work:			
Ill from pesticide exposure	-	-	X
Work status or effects attributed to health:			
Work loss	X ¹¹	-	X
Limited ability to work	X ⁹	-	X
Ailment which limits work	-	-	X
If so, what condition	-	-	X
Work loss from pesticide exposure	-	-	X
Other relevant data:			
Pesticide blood and urine levels	-	-	X ¹²
Blood lead levels	-	-	X
Use of food and water in fields	-	-	X

Occupation and health data sources: National Health Examination and Hispanic Health and Nutrition Examination Surveys—Con.

Measure	National Health Examination Survey		Hispanic Health and Nutrition Examination Survey
	Cycle I	Cycle III	
NCHS references:			
a. Questionnaire and survey description	VH1-4 A-4	VH1-8	VH1-19
b. Selected reports with data analyses	VH11-31 VH11-17	—	—
Data availability	NTIS	NTIS	NTIS

¹Only those who were examined also had interview.

²Oversampled people aged 6 months–19 years and 45–74 years.

³Employment status not obtained if a student, and activity for males did not include housework.

⁴Only asked if the subject was not in school.

⁵Includes: ever worked on farm, number of years, migrant farmworker status, worked on farm in past year, type of farm, type of job.

⁶Military retirement and Veterans Administration (VA) pensions included.

⁷Includes military disability, VA disability, compensation.

⁸Includes Civilian Health and Medical Program of the Uniformed Services (CHAMPUS)-VA coverage.

⁹Only asked of persons aged 12 to 74 years.

¹⁰Specifically asks whether informant was working in an area while pesticides were being applied and, if so, how many times. Also asks whether informant mixed, handled, or applied pesticides while working in farming and, if so, how many times per year. Usage at other times is also asked. Informant is asked whether pesticides were spilled or sprayed on his or her body and whether work time was lost as a result.

¹¹Limitation of usual activity, last 2 weeks.

¹²Available in late 1993 from NTIS.

Occupation and health data sources: National Health and Nutrition Examination Surveys (NHANES)

<i>Measure</i>	<i>NHANES I</i>	<i>NHANES II</i>	<i>NHANES III</i>
Data system characteristics:			
Survey dates	1971–75	1976–80	1989–94
Type of administration	Exam and interview of some household members		
Number of subjects selected	(¹)	25,300	36,500
Number of examinees	(¹)	20,300	30,000
Population sampled.	Civilian, noninstitutionalized U.S. population		
Oversampled groups.	Preschool, reproductive-aged women, elderly, and low-income	Preschool, elderly, and low-income	Children, elderly, African-Americans, and Mexican-Americans
Job description:			
Ages for occupation question.	17–74	17–74	17+
Major activity of respondent.	X ²	X	X
Occupation (last 2 weeks).	X	X	X
Industry (last 2 weeks)	X	X	X
Class of employee	X	X	X
Employment status (last 2 weeks)	X	X	X
Factors related to work history:			
Occupation (longest job)	–	–	X
Industry (longest job).	–	–	X
Years of longest job	–	–	X
Rural or urban location of home	X	X	–
Veteran status	–	X	X
Farm residence	X	X	–
Work pensions.	X ³	X	–
Income source.	X ⁴	X ⁵	X ⁶
Insurance type	X ⁷	–	–
Number job titles (10 years)	–	X	–
Work exposures or characteristics:			
Physical activity at work	–	X	X
Back stress due to work	–	X ⁸	–
Noise exposure at work	–	X	–
Job satisfaction	–	X ⁹	–
Job behaviors	–	X ¹⁰	–
Protective equipment at work.	–	–	X
Tobacco exposure at work	–	–	X
Health status attributed to work:			
Dermatology	X ¹¹	–	–
Occupational disability	–	X ¹²	–
Hearing problem due to work	–	X ¹²	–
Work status or effects attributed to health:			
Work loss	X	X ¹²	X
Limited ability to work	X	X	X
Ailment which limited work	X ¹³	X ¹⁴	–
Other relevant data:			
Use of work clinic	X	–	–
Pesticide blood and urine level.	–	X ¹⁵	–
Volatile organic compounds	–	–	X ¹⁶
Blood lead levels	–	X	X

Occupation and health data sources: National Health and Nutrition Examination Surveys (NHANES) – Con.

<i>Measure</i>	<i>NHANES I</i>	<i>NHANES II</i>	<i>NHANES III</i>
Carboxyhemoglobin levels	–	X	–
Cotinine blood levels	–	–	X
Cadmium blood levels	–	–	X
Spirometry	X	X ¹⁷	X
Central nervous system tests ¹⁸	–	–	X
NCHS references:			
a. Questionnaire and survey description	VH1–10a VH1–10b VH1–14	VH1–15	Future
b. Selected reports with occupational data analyses	VH11–204	VH11–212 MMWR–32	Future
Data availability	NTIS	NTIS	Future

¹Ages 1–24 years: 5,900 interviewed and 4,600 examined. Ages 25–74 years: 20,729 interviewed and 14,407 examined.

²Housework not included as option for male respondents.

³Includes pension from Veteran Administration (VA), Government, or Railroad Retirement.

⁴Includes farm income and workers' compensation.

⁵Includes retirement disability, VA, business, workers' compensation.

⁶Includes Social Security disability.

⁷Includes health insurance from VA and military retirement.

⁸Only asked of people 25–74 years.

⁹Includes: Does your job "stir you to action"? Are you content to remain at your present job level for the next 5 years? In the past 3 years, have you ever taken less than your allotted number of vacation days?

¹⁰Includes: When you are in the midst of doing a job and someone (not your boss) interrupts you, how do you usually feel? How do you feel about competition on the job?

¹¹Specific question regarding occupational exposures to chemicals, fumes, immersion, insecticides, oils, and other skin contact.

¹²Includes 12–17-year-old subjects who work.

¹³Only asked of joint and chest problems.

¹⁴Only asked of people 25–74 years with work limitations. Includes limitations from allergies, respiratory condition, diabetes, heart condition, liver, gallbladder, back or neck problems, physical disability or handicap (ages 18 years and over).

¹⁵Preliminary analyses published in Murphy RJ Toxicol. Clin. Toxicol. 21:299–320, 1984, and Murphy R and Harvey C. Environ. Health Perspec. 60:115–120, 1985. Also: Kutz FW, Cook BT, Carter-Pokras O, Brody D, and Murphy R. J Tox Env Health. In press.

¹⁶Approximately 10 percent of the subjects aged 20–59 years were tested.

¹⁷Performed on subjects aged 8–24 years.

¹⁸Includes reaction time tests and short-term memory tests.

Occupation and health data sources: NHANES I Epidemiologic Followup Study

<i>Measure</i>	<i>Wave I</i>	<i>Wave III</i>	<i>Wave IV</i>
Data system characteristics:			
Survey dates	1982–84	1987	1992
Type of administration	Interview, facility records, and death certificates ¹		
Number of subjects ²	14,407	11,750	11,195
Number of interviews ³	12,220	9,998	Future
Population sampled	NHANES I adults who were examined at baseline ⁴		
Total number of deaths	2,022	3,212	Future
Job description:			
Age for occupation question	32–86	36–91	41–96
Major activity of respondent	X	X	X
Occupation (last 3 months)	X	—	—
Industry (last 3 months)	X	—	—
Employment status	X	X ⁵	X
Factors related to work history:			
Occupation (longest job)	X	—	—
Industry (longest job)	X	—	—
Years of longest job	X	—	—
Rural or urban location of home	X ⁶	—	—
Farm residence	X ⁶	—	—
Work pensions	X ⁷	—	X ⁸
Income source	X ⁹	—	X
Insurance type	—	—	X
Work exposures or characteristics:			
Dust, fume, or vapor exposure	X	—	—
Health status attributed to work:			
Neck or back pain due to work	X	—	—
Work status or effects attributed to health:			
Work loss	X	X	X
Limited ability to work	—	—	X
NCHS references:			
a. Questionnaire and survey description	VH1–22 PHR98–3	VH1–27	Future
b. Selected reports with occupational data analyses	—	—	Future
Data availability	NTIS	NTIS	Future

¹Brief physical examination in 1982–84.

²Note that the number of subjects to be followed decreases with time due to deaths.

³Includes both self and proxy interviews. Excludes those individuals lost to followup and individuals who had died and no proxy interview was obtained.

⁴All followup waves were restricted to adults aged 25–74 at NHANES I examination (total sample = 14,407). In 1986, the Wave II, which was restricted to ages 55–74 at NHANES I examination, but included no occupationally relevant questions.

⁵Includes number of hours the subject worked in past week.

⁶Refers to "most of your life."

⁷Includes Government or private pension, farm income, Veterans Administration, and Railroad Retirement.

⁸Most of the sources are recoded into large categories.

⁹Includes Social Security disability benefits and workers' compensation.

Occupation and health data sources: National Health and Nutrition Examination Survey

Measure	NHANES II Followup Study
Data system characteristics:	
Survey dates	1976-88
Type of administration	Linking and abstracting from death tapes ¹
Number of deaths	1,400
Population sampled	NHANES II decedents who were 35-74 at examination
Job description:	
Age for occupation question	35-74
Major activity of respondent	X
Employment status	X ²
Factors related to work history:	
Occupation (usual during lifetime)	X ³
Industry (usual during lifetime)	X
Rural or urban location of home	X ⁴
Veteran status	X
Health status attributed to work:	
Place of fatal accident ⁵	X
NCHS reference:	
a. Questionnaire and survey description	Future
Data availability	Future

¹1976-79 Social Security Administration death tapes used. 1980-88 National Death Index used.
²Includes limited number of categories for working status.
³Available from death certificate on some individuals. See note to National Vital Statistics System.
⁴Based on county code and population size of the city of residence.
⁵If appropriate. Includes: home; farm, mine and quarry; industrial place and premises; place for recreation and sport; street and highway; public building; resident institution; other specified places; and place of accident not specified.

Occupation and health data sources: National Survey of Personal Health Practices and Consequences

Measure	Wave I	Wave II
Data system characteristics:		
Survey dates	Spring 1979	Spring 1980
Type of administration	Telephone interview	
Approximate number of respondents (all ages)	3,000	2,400
Population sampled	Civilian, noninstitutionalized, and coterminous U.S.	Followup of Wave I
Job description:		
Ages for occupation question.	20-64	20-64
Retirement status	X	X
Work status (now) ¹	X	X
Ever worked	X	X
Self-employment.	X	X
Factors related to work history:		
Number of employers or companies		
In past 5 years	X	-
In past 12 months	-	X
Work exposures or characteristics:		
Paid leave.	X	X
Variable work shift.	X	X
Hard physical work on job ²	X	X
Degree of emotional stress associated with job ³	X	X
Special risk of accidents or injuries at current job	X	X
Work exposure to dangerous substances ⁴		
Ever	-	X
Current job.	-	X
Work status or effects attributed to health:		
Retirement because of health.	X	X
Health currently restricts work ⁵	X	X
Change jobs because of occupational hazards or dangers to health		
Ever	X	-
Past 12 months	-	X
NCHS reference:		
a. Questionnaire and survey description	VH15-1 VH15-2	WP-13
Data availability	OAE	OAE

¹Includes: full-time working, part-time working, laid off or on strike, retired, looking for work but unemployed, not looking for work but unemployed, unable to work, keeping house, full-time student, and don't know.

²Mentions pushing or carrying heavy objects, handling heavy tools or equipment, or digging.

³Includes: hardly any, some, a great deal, don't know, and not applicable.

⁴Includes regular work exposure to: asbestos, lead, mercury, dioxin, PBB, or any kind of radiation.

⁵Specifically asks whether health limits the kind of work and/or the amount of work.

Occupation and health data sources: National Survey of Family Growth

Measure	Cycle I	Cycle II	Cycle III	Cycle IV
Data system characteristics:				
Survey dates	1970	1975	1982	1988
Type of administration		Household interview		
Approximate number of respondents	9,797	8,611	7,969	8,450
Population sampled	Women, aged 15–44, civilian, noninstitutionalized			
	Ever married ¹		All women	
	48 States	48 States	48 States	48 States ²
Oversampled population	Black	Black	Black 15–19 yrs	Black
Job description:				
Work status before birth of last child	–	–	–	X
If worked, how long with employer	–	–	–	X
Work status since last child	X ³	X ⁴	X ⁴	X ⁴
If so, date started	X	X	X	X
If so, length of time	X	–	–	–
Work status time of first conception ⁵	–	–	X	X
Work status 6 months after first pregnancy ⁵	–	–	X	X ⁶
Work status before first birth, between births, after last birth	X ³	X ⁴	X ⁴	X ⁴
Length of work between births	X	–	–	–
Ever work for pay before (first) marriage	X	–	–	–
If so, how long	X	–	–	–
Ever work for pay since (first) married	X	X ⁴	–	–
If so, how long	X	–	–	–
Ever work for pay at least 6 months	X	X	X	X
If so, number of hours per week	X	X	X	X
Work status (last week)	X ⁷	X ⁸	X ⁸	X ⁸
If not working, plan to work in future	X	X	–	–
If so, work same shift or what shift	–	–	X	X
If so, what time starts and ends job	–	–	X	X
Number of weeks worked in past 12 months	X	X	–	–
Occupation of last job	X	X	X	X
Industry of last job	X	X	X	X
Employer paid maternal leave (last birth)	–	–	–	X
If so, how many weeks	–	–	–	X
Husband's work status (last week)	X	X	X	X
If so, number of hours per week	X	X	X	X
Number of weeks husband worked in past 12 months	X	X	–	–
Partner's work status (last week)	–	–	–	X
Occupation of husband's (partner) main job	X	X	X	X
Industry of husband's (partner) main job	X	X	X	X
Occupation of mother or stepmother	–	–	X	X
Occupation of father or stepfather	–	–	X	X
Work status or effects attributed to health:				
Stopped working before delivery	X	X	X	X
Reason	–	X	–	X ⁹
Length of time stopped before delivery	X	X	X	X
Pregnant and worked in past 12 months	–	X	–	–
If so, time before end of pregnancy plan to (did you) stop working	–	X	–	–
Reason (if stop working)	–	X ⁹	–	–
If so, when plan to (did you) return to job	–	X	–	–

Occupation and health data sources: National Survey of Family Growth—Con.

<i>Measure</i>	<i>Cycle I</i>	<i>Cycle II</i>	<i>Cycle III</i>	<i>Cycle IV</i>
Other relevant data:				
Regular child care while working/go to school	X	X	X	X
If so, who ¹⁰	X	X	X	X
NCHS references:				
a. Questionnaires and survey description	VH2-76 VH1-23	VH2-87 VHH1-23	VH2-98 VH1-23	VH2-109
b. Selected reports with occupational data analyses	VH23-4	VH23-9 VH23-11	VH23-16	
Data availability	NTIS	NTIS	NTIS	NTIS

¹Included currently married, separated, divorced, or widowed women. Included never married only if children lived in household.

²Sample drawn from 1986 National Health Interview Survey interviews.

³Ever worked for pay.

⁴Worked for pay at least 6 months.

⁵Includes: full-time, part-time, going to school, keeping house, with a job but not at work because of temporary illness, vacation, strike, unemployed, laid off, looking for work, and other.

⁶Same as footnote 5 plus maternal leave option.

⁷Same as footnote 6 plus retired option.

⁸Categorized same as footnote 5. If woman was currently pregnant and working in past 12 months, categories included were same as footnote 6.

⁹Includes: fired, leave, quit.

¹⁰In 1973 survey includes: in own home by relative, in own home by nonrelative, in relative's home, in nonrelative's home, in day care centers, or other special organized facility, and other.

In 1979 survey includes: by husband in respondent's home, by relative in respondent's home, by nonrelative in respondent's home, in relative's home, in nonrelative's home, and in day care or other special organized facility.

In 1982 survey includes two questions, where and who. Where: respondent's home, someone else's home, or in day care. Who: father, grandmother, other relative, or someone else.

In 1988 survey includes two questions, where and who. Where: respondent's home, other private home, or other place. Who: child's other parent or stepparent, child's brother or sister aged 13 years and older, child's brother or sister under 13 years, child's grandparent, other relative, nonrelative, child cares for self, day care center, nursery or preschool, respondent works at home, or respondent cares for child at work.

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