

HEALTH AND RETIREMENT STUDY  
2018 Core  
Final, Version 2.0  
May 2022

Data Description and Usage

## Conditions of Use

By registering for access to HRS Public Release data, the User agrees to all of the following:

- Make no attempts to identify study participants.
- Not to transfer HRS Public Release data to any third party other than staff or students for whom you are directly responsible except as indicated below.
- Not to allow others to use your username and password to access this site.
- To certify the destruction of any downloaded Public Release data file as well as any data files derived from the downloaded file when requested to do so by the Health and Retirement Study.
- To include the following citation in any research reports, papers, or publications based on Public Release data:

### *In text:*

"The HRS (Health and Retirement Study) is sponsored by the National Institute on Aging (grant number NIA U01AG009740) and is conducted by the University of Michigan."

### *In references:*

"Health and Retirement Study, 2018 HRS Final Core public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, (year)."

- To include the following citation in any research reports, papers, or publications based on any Public Release data file tagged as "Early" or "Preliminary":

"This analysis uses Early Release data from the Health and Retirement Study, 2018 HRS Early Core, sponsored by the National Institute on Aging (grant number NIA U01AG009740) and conducted by the University of Michigan. These data have not been cleaned and may contain errors that will be corrected in the Final Public Release version of the dataset."

- Please note that although it is necessary to include the above citations to the HRS in any publications, it is not necessary to associate your publications with the HRS grant in [PubMed](#).
- Provide information regarding any research product (dissertation, thesis, journal article, book, book chapter, report, etc.) based on data obtained from the Health and Retirement Study by sending an electronic copy to [hrspublications@umich.edu](mailto:hrspublications@umich.edu).
- Report immediately to the Health and Retirement Study at [hrsquestions@umich.edu](mailto:hrsquestions@umich.edu) any disclosure of study participant identity as well as any discovery of flaws or errors in the data or documentation files.
- Notify the Health and Retirement Study through use of the update function provided at this site or by electronic mail directed to [hrsquestions@umich.edu](mailto:hrsquestions@umich.edu) of changes in your electronic mail address, postal address, telephone number, organizational affiliation or organizational status.

TABLE OF CONTENTS

---

<b>TABLE OF CONTENTS</b> .....	<b>III</b>
<b>DATA DESCRIPTION AND USAGE</b> .....	<b>1</b>
<b>1. OVERVIEW</b> .....	<b>1</b>
<b>1A. THE SAMPLE INTERVIEWED IN 2018</b> .....	<b>1</b>
<b>1B. 2018 QUESTIONNAIRE SECTIONS</b> .....	<b>2</b>
<b>1C. LEVELS OF FILES</b> .....	<b>3</b>
1C1. Household Level Files .....	3
1C2. Respondent Level Files .....	3
1C3. Sibling Level File .....	3
1C4. Household Member and Child Level Files .....	3
1C5. Helper Level File .....	3
1C6. Transfer-to-Child-Level File .....	3
1C7. Transfer-from-Child-Level File .....	4
1C8. Pension Level Files .....	4
1C9. Jobs level files .....	4
<b>2. FILE NAMING CONVENTIONS</b> .....	<b>4</b>
<b>3. DATA FILES</b> .....	<b>5</b>
<b>3A. CONSTRUCTION OF THE INTERVIEWER OBSERVATION FILES (IO_R AND IO_H)</b> .....	<b>6</b>
<b>4. IDENTIFICATION VARIABLES</b> .....	<b>6</b>
<b>4A. PRIMARY IDENTIFICATION VARIABLES</b> .....	<b>6</b>
4A1. HHID - Household Identification Number .....	6
4A2. QSUBHH - 2018 Sub-household Identifier .....	6
4A3. PN - Person Number .....	7
4A4. OPN - Other Person Number .....	7
<b>4B. PRIMARY IDENTIFICATION VARIABLES FOR DATASETS AT EACH OF THE NINE LEVELS</b> .....	<b>7</b>
<b>4C. SECONDARY IDENTIFICATION VARIABLES</b> .....	<b>8</b>
<b>4D. DATASETS INCLUDING QSUBHH AND OPN AS PRIMARY IDENTIFIERS</b> .....	<b>8</b>
<b>5. DISTRIBUTION FILES AND DIRECTORY STRUCTURE</b> .....	<b>9</b>
5A. DISTRIBUTION FILES .....	9
5B. DIRECTORY STRUCTURE .....	9
<b>6. PROGRAM STATEMENTS</b> .....	<b>9</b>
6A. USING THE FILES WITH SAS .....	9
6B. USING THE FILES WITH SPSS .....	10
6C. USING THE FILES WITH STATA .....	10
<b>7. LOADING HRS DATA PRODUCTS IN A NON-WINDOWS ENVIRONMENT</b> .....	<b>10</b>
<b>7A. WORKING IN AN OS X ENVIRONMENT</b> .....	<b>10</b>
7A1. OS X: SPSS .....	11
7A2. OS X: Stata .....	11
<b>7B. WORKING IN A LINUX ENVIRONMENT</b> .....	<b>12</b>
7B1. Linux: Stata .....	12
7B2. Linux: SAS .....	12
<b>8. DOCUMENTATION</b> .....	<b>13</b>
<b>8A. CODEBOOK</b> .....	<b>13</b>
8A1. Variable Names .....	13
8A2. Other Types of Documentation .....	15

<b>8B. MASTER CODES</b> .....	<b>15</b>
9. ADDITIONAL NOTES.....	15
9A. HOUSEHOLDS WITH NO FAMILY OR FINANCIAL RESPONDENTS .....	15
9B. UNFOLDING BRACKET VARIABLES AND IMPUTATIONS .....	16
9C. 2018 UNFOLDINGS ISSUES .....	18
9D. MODULES FOR THE 2018 DATA COLLECTION .....	18
9E. EXPLANATION OF THE DIFFERENCE BETWEEN TRACKER AND CORE DATA RELEASES .....	18
9F. ENHANCED FACE-TO-FACE SAMPLE DESIGN AND CONTENT .....	19
9G. WEB MODE .....	20
9H. WHOLE BLOOD DRAWS .....	22
9I. SECTION G: FUNCTIONAL LIMITATIONS AND HELPERS .....	22
9J. ERRATA .....	22
9K. SUMMARY OF DATA MODEL (DM) CHANGES DURING 2018 PRODUCTION .....	23
9L. NEW QUESTIONS IN HRS 2018 .....	28
<b>10. OBTAINING THE DATA</b> .....	<b>29</b>
10A. REGISTRATION AND DOWNLOADING THE DATA .....	29
10B. CONDITIONS OF USE .....	29
10C. PUBLICATIONS BASED ON DATA.....	29
<b>11. IF YOU NEED TO KNOW MORE</b> .....	<b>30</b>
11A. HRS INTERNET SITE .....	30
11B. CONTACT INFORMATION: .....	30
<b>APPENDIX</b> .....	<b>I</b>
<b>A. EXAMPLES OF SUB-HOUSEHOLD AND RESPONDENT PERSON NUMBER AND OTHER PERSON NUMBER ASSIGNMENTS</b> .....	<b>I</b>
A1. MARRIED COUPLE STAYS MARRIED .....	I
A2. COUPLE DIVORCES.....	II
A3. ONE OR BOTH RESPONDENTS DIE.....	II
A4. SINGLE RESPONDENT MARRIES .....	II
A5. COUPLE DIVORCES, ONE RESPONDENT REMARRIES AND DIVORCES .....	III
A6. COUPLE DIVORCES AND MARRIES AGAIN .....	IV
A7. MARRIED COUPLE WITH CHILDREN AND SIBLINGS .....	IV
A8. COUPLE WITH CHILDREN AND SIBLINGS DIVORCES.....	V
A9. COUPLE DIVORCES, ONE RESPONDENT REMARRIES, BOTH SPLIT-OFF HOUSEHOLDS HAVE NEW MEMBERS ..	VI
<b>B. MASTER CODES</b> .....	<b>VI</b>
B1. HEALTH CONDITIONS - CATEGORICAL .....	VI
B2. OCCUPATION CODES .....	X
B3. INDUSTRY CODES .....	XXI
<b>C. STATE AND COUNTRY CODES</b> .....	<b>XXVI</b>
C1. STATES .....	XXVI
C2. OTHER U.S. ....	XXVII
C3. OTHER COUNTRIES .....	XXVII

---



# Data Description and Usage

## 1. Overview

The 2018 HRS Core (Final, Version 1.0) data release consists of data obtained as part of the Health and Retirement Study (HRS), a national longitudinal study of the economic, health, marital, and family status, as well as public and private support systems, of older Americans. The National Institute on Aging provided funding (NIA U01 AG009740), with supplemental support from the Social Security Administration. The Institute for Social Research (ISR) Survey Research Center (SRC) at the University of Michigan conducted the survey.

By receiving the data, which have been freely provided, you agree to use them for research and statistical purposes only and to make no effort to identify the respondents. In addition, you agree to send us a copy of any publications you produce based on the data. See [Obtaining the Data](#) for additional details.

### 1A. The Sample Interviewed in 2018

The data collection period for the 2018 interview was April 2018 through June 2019. The HRS sample is comprised of seven sub-samples (HRS, AHEAD, CODA, WAR BABY, EARLY BABY BOOMER, MIDDLE BABY BOOMER and LATE BABY BOOMER).

The first sub-sample, the HRS sub-sample, consists of people who were born 1931 through 1941 and were household residents of the conterminous U.S. in the spring 1992, and their spouses or partners at the time of the initial interview in 1992 or at the time of any subsequent interview. The HRS sub-sample was interviewed in 1992 and every two years thereafter.

The AHEAD sub-sample consists of people who were born in 1923 or earlier, were household residents of the conterminous U.S. in the spring 1992, and were still household residents at the time of their first interview in 1993 or 1994, and their spouses or partners at the time of the initial interview or at the time of any subsequent interview. The AHEAD sub-sample was interviewed in 1993-94, 1995-96, 1998 and every two years thereafter.

The Children of the Depression (CODA) sub-sample consists of people who were born in 1924 through 1930, were household residents of the conterminous U.S. when first interviewed in 1998, and who, at that time, did not have a spouse or partner who was born before 1924 or between 1931 and 1947, and their spouses or partners at the time of the initial interview or at the time of any subsequent interview. The Children of the Depression sub-sample was interviewed in 1998 and every two years thereafter.

The War Baby (WB) sub-sample consists of people who were born in 1942 through 1947, were household residents of the conterminous U.S. in the spring 1992, who, at that time, did not have a spouse or partner born before 1924 or between 1931 and 1941, and were still household residents at the time of the first interview in 1998, and their spouses or partners at the time of the initial interview or at the time of any subsequent interview. The War Baby sub-sample was interviewed in 1998 and every two years thereafter.

The Early Baby Boomer (EBB) sub-sample consists of people who were born in 1948 through 1953, were household residents of the U.S. when first interviewed in 2004, and who, at that time, did not have a spouse or partner who was born before 1948, and their spouses or partners at the time of the initial interview

or at the time of any subsequent interview. The Early Baby Boomer sub-sample was interviewed in 2004 and every two years thereafter.

The Mid Baby Boomer (MBB) sub-sample consists of people who were born between 1954 and 1959, were household residents of the U.S. when first interviewed in 2010/2011, and who, at that time, did not have a spouse or partner who was born before 1954, along with their spouses or partners at the time of the initial interview or at the time of any subsequent interview. The Middle Baby Boomer sub-sample was interviewed in 2010/2011 and every two years thereafter.

Both the EBB and MBB sub-samples were supplemented in the 2010 wave with a sample of individuals residing in areas with 10% or higher concentrations of Black and/or Hispanic populations in order to boost the size of the minority samples in those cohorts.

The Late Baby Boomer (LBB) sub-sample consists of people who were born in 1960-1965, were household residents of the U.S. when first interviewed in 2016, and who, at that time, did not have a spouse or partner who was born before 1959, along with their spouses or partners at the time of the initial interview or at the time of any subsequent interview. The Late Baby Boomer sub-sample was interviewed in 2016 and will be interviewed every two years thereafter.

Original sample members are those selected as described above and their spouses or partners at the time of the initial interview in 1992 (HRS), 1993 (AHEAD), 1998 (CODA or WB), 2004 (EBB), 2010/2011 (MBB) or 2016 (LBB). For more details about the sample, see our [Web site](#).

## **1B. 2018 Questionnaire Sections**

<b>2018 Section</b>	<b>Content</b>
PR	Preload
A	Coverscreen
B	Demographics
C	Physical Health
D	Cognition
E	Family Structure
F	Parents, Siblings and Transfers
G	Functional Limitations and Helpers
H	Housing
I	Physical Measures and Biomarkers
J	Employment
J2	Pensions
J3	Retirement and Social Security
M	Disability
N	Health Services and Insurance
P	Expectations
Q	Assets and Income
R	Asset Change
S	Widowhood and Divorce
T	Wills and Life Insurance
U	Asset Verification
V	Modules
W	Event History, Internet Use and Social Security
Y	Time Calculations
IO	Interviewer Observations
LB	Leave-Behind Questionnaires
TN	Thumbnails

## **1C. Levels of Files**

In the 2018 data collection instrument, most questions were asked of all respondents. Some questions were asked about the household. For two-respondent households, household level questions were asked of one respondent who was designated as the financial respondent, family respondent, or coverscreen respondent (the first respondent interviewed) on behalf of the entire household.

In addition to the familiar household-level and respondent-level files, the 2018 HRS Core (Final, Version 1.0), contains files at seven other levels: household-member-and-child, sibling, helper, transfer-to-child, transfer-from-child, jobs, and pension.

### **1C1. Household Level Files**

Household-level files contain questions that were asked about the household of a designated coverscreen, financial, or family respondent. A coverscreen respondent answered family questions (section A) on behalf of the entire household; the coverscreen respondent may or may not be the family respondent. A family respondent answered family questions (section E) on behalf of the entire household, and a financial respondent answered household-level financial questions (sections H, Q, R and U) on behalf of the entire household. The household-level files contain one record for each household in which at least one interview was obtained in 2018.

### **1C2. Respondent Level Files**

Respondent-level files contain questions that were asked of all respondents about themselves (or asked of a proxy about the respondent if the respondent was not able to give an interview). The files contain one record for each respondent or proxy who gave an interview in 2018.

### **1C3. Sibling Level File**

The sibling-level file consists of characteristics of the respondent's siblings. If a respondent had at least one living parent, he/she was asked a variety of questions about his/her siblings (Section F). The sibling file contains one record for each sibling of a respondent. Each respondent reports on his/her own parents and siblings. Sibling data are also stored in the preload section, H18PR\_SB.

### **1C4. Household Member and Child Level Files**

Household-member-and-child-level-files contain characteristics about household members and children. This information can come from Section A. (coverscreen) or the family respondent in Section E and also in the preload section.

### **1C5. Helper Level File**

The helper-level file contains information provided by each respondent about helpers. A helper may be a person or organization that was reported by the respondent as providing help with Activities of Daily Living (ADLs) or Instrumental Activities of Daily Living (IADLs). The file contains one record for each helper. If a child helped both respondents in a two respondent household, the helper file will contain two records - one of mother's report of the child's helping her and one for father's report of the child's helping him.

### **1C6. Transfer-to-Child-Level File**

The transfer-to-child-level file contains information provided by the family respondent about transfers of money to a child or grandchild. The file contains one record for each transfer to a child or grandchild.



### **1C7. Transfer-from-Child-Level-File**

The transfer-from-child-level file contains information provided by the family respondent about transfers of money from a child or grandchild. The file contains one record for each transfer from a child or grandchild.

### **1C8. Pension Level Files**

Pension-level files contain information about pensions that the respondent has reported over the years during their involvement with the HRS. Each file contains one record for each pension that has been reported and followed up on in the current data collection.

### **1C9. Jobs level files**

Job-level files contain information on jobs the respondent has reported over time. Current jobs are represented, as well as past employment with unresolved pensions from past waves. The files have one record for each job represented.

## **2. File Naming Conventions**

Files are named beginning with "H18" for HRS 2018, followed by a letter (or two) designating the questionnaire section. A separator, "\_" and then one or two letters designating the level follows the section letter designator.

- H for household-level
- R for respondent-level
- MC for household-member-and-child-level
- SB for sibling-level
- HP for helper-level
- TC for transfer-to-child-level
- FC for transfer-from-child-level
- JB for jobs-level
- P for pension-level

For example, the file H18A\_R includes variables from Section A (coverscreen) at the respondent level, whereas, H18A\_H contains variables from Section A (coverscreen) at the household level.

The following extensions are used for the six different types of files that are distributed.

- .da for data files,
- .sas for SAS program statements,
- .sas7bdat for "ready-to-use" SAS files,
- .sps for SPSS program statements,
- .sav for "ready-to-use" SPSS files,
- .do for Stata DO statements,
- .dct for Stata dictionary statements,
- .dta for "ready-to-use" Stata files, and
- .txt for codebook files.

One of each of these file types is provided for each of the 40 data files for the 2018 HRS Core (Final, Version 1.0) data release. For example,

- H18A\_R.da contains respondent data from Section A,
- H18A\_R.sas contains corresponding SAS program statements,
- H18A\_R.sas7bdat contains "ready-to-use" data in SAS format
- H18A\_R.sps contains corresponding SPSS program statements,

H18A\_R.sav contains "ready-to-use" data in SPSS format  
H18A\_R.do contains corresponding Stata DO statements,  
H18A\_R.dct contains corresponding Stata dictionary statements,  
H18A\_R.dta contains "ready-to-use" data in Stata format, and  
H18A\_R.txt contains the ASCII codebook.

### 3. Data Files

The 2018 HRS Core (Final, Version 1.0) data are distributed in 40 data files. The files are listed below along with the number of cases (N), number of variables (NV), and the primary identifiers (IDS). The records in the data files are sorted in order by these primary identifiers.

The 2018 HRS Core data are provided in ASCII format, with fixed-length records. Use associated SAS, SPSS or Stata program statements to read the data into the analysis package of your choice.

#### Household level files, IDS=HHID, QSUBHH

H18PR_H	N=12467	NV= 43
H18A_H	N=12467	NV= 48
H18E_H	N=12467	NV= 142
H18H_H	N=12467	NV= 213
H18Q_H	N=12467	NV= 670
H18R_H	N=12467	NV= 113
H18U_H	N=12467	NV= 247
H18IO_H	N=12467	NV= 54

#### Respondent level files, IDS=HHID, PN, QSUBHH

H18PR_R	N=17146	NV= 180
H18A_R	N=17146	NV= 37
H18B_R	N=17146	NV= 167
H18C_R	N=17146	NV= 258
H18D_R	N=17146	NV= 286
H18F_R	N=17146	NV= 191
H18G_R	N=17146	NV= 158
H18I_R	N=17146	NV= 192
H18IO_R	N=17146	NV= 80
H18J_R	N=17146	NV= 600
H18J3_R	N=17146	NV= 181
H18LB_R	N=17146	NV= 413
H18M1_R	N=17146	NV= 262
H18M2_R	N=17146	NV= 375
H18N_R	N=17146	NV= 339
H18P_R	N=17146	NV= 57
H18S_R	N=17146	NV= 113
H18T_R	N=17146	NV= 110
H18TN_R	N=17146	NV= 19
H18V_R	N=17146	NV= 234
H18W_R	N=17146	NV= 17
H18Y_R	N=17146	NV= 34

#### Household member and child level files, IDS=HHID, QSUBHH, OPN

H18PR_MC	N=68782	NV= 26
H18E_MC	N=55683	NV= 29

#### Sibling level files, IDS=HHID, PN, OPN

H18PR_SB	N=19406	NV= 16
----------	---------	--------

H18F_SB	N=19406	NV= 29
Transfer-to-child-level-file, IDS=HHID, QSUBHH		
H18E_TC	N= 5137	NV= 25
Transfer-from-child-level-file, IDS=HHID, QSUBHH		
H18E_FC	N= 1029	NV= 24
Helper level file, IDS=HHID, PN, OPN		
H18G_HP	N= 4725	NV= 31
Jobs level file, IDS=HHID, PN, JOBID		
H18PR_JB	N=22805	NV= 16
Pension level files, IDS=HHID, PN, Pension ID		
H18PR_P	N= 5699	NV= 17
H18J2_P	N=12166	NV= 184

### 3A. Construction of the Interviewer Observation Files (IO\_R and IO\_H).

The interview observations can have many entries for each sample ID. In order to create the release files we use the following guidelines:

**IO\_R:** we first look for the lines are taken from a completed interview (result code = 1001). If there is no such data for a given Sample ID, we then take the last observation recorded for that sample ID.

**IO\_H:** is a little more complicated, as the most important factor for the Household level file is the housing observations, which can be recorded at any time. For each HH, we look for the first and most complete set of housing observation questions for the household, as it could have been recorded on the line of either respondent. We use that record for the Household Level observation file.

## 4. Identification Variables

Identification variables for HRS 2018 are stored in character format.

### 4A. Primary Identification Variables

Several variables, HHID, QSUBHH, PN, OPN, are used in various combinations to uniquely identify the nine different level datasets that comprise this data release.

#### 4A1. HHID - Household Identification Number

In the initial wave of data collection (in 1992 for the HRS sub-sample, in 1993 for the AHEAD sub-sample, 1998 for the WB and CODA sub-samples, 2004 for the EBB sub-sample, 2010/2011 for the MBB sub-sample and 2016 for the LBB sub-sample), each sample household was assigned a Household Identifier. HHID is stable across waves of data collection and uniquely identifies the original household and any households derived from that household in subsequent waves of data collection. HHID has six-digits.

#### 4A2. QSUBHH - 2018 Sub-household Identifier

In combination with HHID, QSUBHH uniquely identifies a household at the time of the 2018 data collection. Sub-household identifiers can be different at each wave. QSUBHH has one-digit. For more information, see Examples of [Sub-Household and Respondent Person Number and Other Person Number Assignments](#).

#### **4A3. PN - Person Number**

In combination with HHID, PN uniquely identifies a respondent or respondent's spouse or partner. PNs are unique within an original household (HHID). The PN assigned to a particular respondent does not change across waves. PN has three-digits.

#### **4A4. OPN - Other Person Number.**

In the 2018 data collection HHID, QSUBHH and OPN uniquely identify another person in the household member and child files; HHID, PN, and OPN uniquely identify another person in the helper or sibling files. OPN has three-digits.

#### **4B. Primary Identification Variables for Datasets at Each of the Nine Levels**

Two identifiers uniquely identify records in the

- o respondent-level datasets:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) PN RESPONDENT PERSON IDENTIFICATION NUMBER

Two identifiers uniquely identify records in the

- o household-level datasets:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) QSUBHH 2018 SUB HOUSEHOLD IDENTIFICATION NUMBER

Three identifiers uniquely identify records in the

- o helper-level datasets:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) PN RESPONDENT PERSON IDENTIFICATION NUMBER
  - 3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the

- o household-member-and-child-level:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) QSUBHH 2018 SUB HOUSEHOLD IDENTIFICATION NUMBER
  - 3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the

- o sibling-level datasets:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) PN RESPONDENT PERSON IDENTIFICATION NUMBER
  - 3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the

- o transfer-to-child-level, and
- o transfer-from-child-level datasets:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) QSUBHH 2018 SUB HOUSEHOLD IDENTIFICATION NUMBER
  - 3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the

- o Pension Level Data sets
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  - 2) PN RESPONDENT PERSON IDENTIFICATION NUMBER
  - 3) Z505 PENSION TRACKING NUMBER

Three identifiers uniquely identify records in the

- o Jobs level datasets:
  - 1) HHID HOUSEHOLD IDENTIFICATION NUMBER

- 2) PN            RESPONDENT PERSON IDENTIFICATION NUMBER
- 3) Z504        JOB TRACKING NUMBER

**4C. Secondary Identification Variables**

In addition to the primary identification variables that uniquely identify records in a dataset, secondary identification variables that allow links to other datasets are provided. Two sets of secondary identification variables are provided. They are listed below.

Secondary Identification Variables for

- o respondent-level datasets
- o sibling level datasets
- o helper-level datasets
- o job-level datasets and
- o Pension-level datasets

- QSUBHH    2018 SUB HOUSEHOLD IDENTIFICATION NUMBER
- PSUBHH    2016 SUB HOUSEHOLD IDENTIFICATION NUMBER
- OPN\_SP    2018 SPOUSE/PARTNER PERSON NUMBER
- QCSR      2018 WHETHER COVERSHEET RESPONDENT
- QFAMR    2018 WHETHER FAMILY RESPONDENT
- QFINR    2018 WHETHER FINANCIAL RESPONDENT

Secondary Identification Variables for

- o household level datasets
- o household member or child level datasets
- o transfer-from-child-level datasets and
- o transfer-to-child-level datasets

- QSUBHH    2018 SUB HOUSEHOLD IDENTIFICATION NUMBER
- PSUBHH    2016 SUB HOUSEHOLD IDENTIFICATION NUMBER
- OPN\_CS    PERSON NUMBER OF COVER SCREEN RESPONDENT
- QPN\_FAM   2018 FAMILY RESP PERSON NUMBER
- QPN\_FIN   2018 FINANCIAL RESP PERSON NUMBER
- QPN\_NCS   2018 NON-COVERSCREEN RESP PERSON NUMBER
- QPN\_NFAM  2018 NON-FAMILY RESP PERSON NUMBER
- QPN\_NFIN  2018 NON-FINANCIAL RESP PERSON NUMBER

**4D. Datasets Including QSUBHH and OPN as Primary Identifiers**

When working with datasets including QSUBHH and OPN as primary identifiers -- household-member-and-child-level, it is essential to use QSUBHH to distinguish other persons.

Sometimes records with the same HHID and OPN will be separate reports about the same person. For example, [Couple with Children and Siblings Divorces](#), the record where HHID is 890121, QSUBHH is 1, and OPN is 101 is the report about the child from the mother, and the record where HHID is 890121, QSUBHH is 2, and OPN is 101 is the report about the same child from the father.

At other times records with the same HHID and OPN will be reports about different persons. For example, a couple divorces, one respondent remarries, and both split-off households have new members. When a couple divorces and both split-off households have new members, the record where HHID is 871231, QSUBHH is 2, and OPN is 151 is for the ex-wife's mother, while the record where HHID is 871231, QSUBHH is 1, and OPN is 151 is for the ex-husband's new stepchild.

## 5. Distribution Files and Directory Structure

### 5A. Distribution Files

The files are packaged for download from our Web site in two different ways - as one large .zip file that contains six smaller .zip files, one .pdf file, and one .txt file, or the six smaller files available individually for separate download. The combined file is H18core.zip.

The individual .zip files for separate download are:

ASCII data files

H18da.zip contains data files.

Program statements and "ready-to-use" files

H18sas.zip contains SAS program statements (.sas) and "ready-to-use" files (.sas7bdat)

H18sps.zip contains SPSS program statements (.sps) and "ready-to-use" files (.sav)

H18sta.zip contains Stata program statements (.do), dictionary statements (.dct) and "ready-to-use" files (.dta)

Documentation files

H18cb.zip contains the codebook.

H18qn.zip contains the questionnaire.

H18dd.pdf - this document.

### 5B. Directory Structure

While a particular setup is not required for using HRS files, we have traditionally suggested a directory structure. By using this directory structure, you will not have to change the path name in your program statement files. If you use a different structure, just change the directory references in the program statement files.

Directory	Contents
c:\hrs2018	Files downloaded from Web site
c:\hrs2018\codebook	Unzipped files from H18cb.zip
c:\hrs2018\data	Unzipped files from H18da.zip
c:\hrs2018\qnaire	Unzipped files from H18qn.zip
c:\hrs2018\sas	Unzipped files from H18sas.zip
c:\hrs2018\spss	Unzipped files from H18sps.zip
c:\hrs2018\stata	Unzipped files from H18sta.zip

Decompress the selected .zip files into the appropriate subdirectories.

## 6. Program Statements

Each data file comes with associated SPSS, SAS, or Stata program statements to read the data. Files containing SPSS statements are named with .SPS extension, those with SAS statements with a .SAS extension, and those with Stata statements with .DO and .DCT extensions.

The statement files are named beginning with the same prefix as the corresponding data file. For example, SAS statements in the file H18A\_R.SAS go with the H18A\_R.DA data file.

### 6A. Using the Files with SAS

To create a SAS system file for a particular dataset, two file types must be present for that dataset -- .SAS program statement files and .DA data files.

To create a SAS system file, load the \*.SAS file into the SAS Program Editor.

If the \*.SAS file is located in "c:\hrs2018\sas" and the data file is located in "c:\hrs2018\data", you can run the file as is. A SAS system file (\*.SD2 or \*.SAS7BDAT) will be saved to directory "c:\hrs2018\sas".

If the files are not located in the specified directories, you will need to edit the \*.SAS file to reflect the proper path names prior to running the file.

#### **6B. Using the Files with SPSS**

To create an SPSS system file for a particular dataset, two file types must be present for that dataset -- .SPS program statement files and .DA data files.

To create an SPSS system file, open the \*.SPS file in SPSS as an SPSS Syntax File.

If the \*.SPS file is located in "c:\hrs2018\spss" and the data file is located in "c:\hrs2018\data", you can run the file as is. An SPSS system file (\*.SAV) will be saved to directory "c:\hrs2018\spss".

If the files are not located in the specified directories, you will need to edit the \*.SPS file to reflect the proper path names prior to running the file.

#### **6C. Using the Files with Stata**

To use Stata with a particular dataset, the following three file types must be present for that dataset -- .DCT files, .DO files, and .DA data files.

Files with the suffix .DA contain the raw data for Stata to read. Files with the suffix .DCT are Stata dictionaries used by Stata to describe the data. Files with the suffix .DO are short Stata programs ("do files") which you may use to read in the data. Load the .DO file into Stata and then submit it.

If the \*.DO and \*.DCT files are located in "c:\hrs2018\Stata" and the data file is located in "c:\hrs2018\data", you can run the .DO file as is.

If the files are not located in these directories, you must edit the \*.DO and \*.DCT files to reflect the proper path names before you run the files.

Note that the variable names provided in the .DCT files are uppercase. If you prefer lower case variable names, you may wish to convert the .DCT files to lower case prior to use. You may do this by reading the .DCT file into a text or word processing program and changing the case. For instance in Microsoft Word, Edit, Select All, Format, Change Case, lowercase.

### **7. Loading HRS Data Products in a Non-Windows Environment**

All files released by The Health and Retirement Study are created in a Windows environment. This means that non-Microsoft users will need to modify the default Windows file structure syntax to match that of their own operating system. The instructions in this section provide advice on how to make these changes.

#### **7A. Working in an OS X Environment**

The following examples should work for both Macintosh OS X and any Unix/Linux distribution. Open the SAS program file(s), SPSS syntax file(s) or the Stata do/dct files in an ASCII editor and make the changes indicated below.

Important items for Mac OS X users to consider:

1. Use **Stuffit** instead of **Archive Utility** to decompress the downloaded zip file into a desktop folder.
  2. When using the Apple ASCII text editor (**TextEdit**), select *Preferences* and make these changes...
    - Under *Format*, select *Plain text*
    - Under *Options*, uncheck
      - *Smart quotes*
      - *Smart dashes*
- Better yet, install and use **TextWrangler**

#### 7A1. OS X: SPSS

In this example, we assume that the user has downloaded the 2018 tracker dataset and placed the files in a **Desktop** folder called **trk2018** with the ASCII data file (.da) stored in subfolder **data** and the syntax file (.sps) in subfolder **spss**. The commands in the syntax file(s) should be modified to look like this:

```
FILE HANDLE trk2018TR_R /name='~/Desktop/trk2018/data/TRK2018TR_R.da'
LRECL=221.
DATA LIST FILE= trk2018TR_R /
HHID 1-6(A)
[rest of syntax file goes here]
.
execute.
SAVE /outfile '~/Desktop/trk2018/spss/TRK2018TR_R.sav'.
Execute.
```

#### 7A2. OS X: Stata

In the following example we assume that the user has downloaded the 2018 tracker dataset and placed the files in a **Desktop** folder called **trk2018** with the ASCII data file (.da) stored in subfolder **data** and the syntax files (.do/.dct) in subfolder **stata**. Next step is to modify the .do and .dct files in the stata folder:

##### File TRK2018TR\_R.do:

*Change from...*

```
infile using c:\trk2018\stata\TRK2018TR_R.dct
```

*To...*

```
infile using ~/Desktop/trk2018/stata/TRK2018TR_R.dct
```

*Change from...*

```
save c:\trk2018\stata\TRK2018TR_R.dta
```

*To...*

```
Save ~/Desktop/trk2018/stata/TRK2018TR_R.dta
```

##### File TRK2018TR\_R.dct:

*Change from...*

```
dictionary using c:\trk2018\data\TRK2018TR_R.da {
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"
column(7) str3 PN %3s "PERSON NUMBER"
```

```
        [additional dictionary statements]
```

```
}
```

*To...*

```
dictionary using ~/Desktop/trk2018/data/TRK2018TR_R.da {
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"
column(7) str3 PN %3s "PERSON NUMBER"
```



*[additional dictionary statements]*

## **7B. Working in a Linux Environment**

### **7B1. Linux: Stata**

In the following system file build example we assume that the user (user1) has downloaded the 2018 tracker dataset and placed the files in a folder called **trk2018** (/home/user1/trk2018), with the ASCII data file (.da) stored in subfolder **data** (/home/user1/trk2018/data) and the syntax files (.do/.dct) in subfolder **stata** (/home/user1/trk2018/stata).

This process is very similar to the OS X example shown above. The main difference is that the file/folder structure will be somewhat different when he .do and .dct files in the stata folder are modified.

File TRK2018TR\_R.do:

*Change from...*

infile using c:\trk2018\stata\trk2018tr\_r.dct

*To...*

infile using /home/user1/trk2018/stata/trk2018tr\_r.dct

*Change...*

save c:\trk2018\stata\TRK2018TR\_R.dta

*To...*

Save /home/user1/trk2018/stata/trk2018tr\_r.dta

### **File TRK2018TR\_R.dct:**

*Change from...*

```
dictionary using c:\trk2018\data\trk2018tr_r.da {  
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"  
column(7) str3 PN %3s "PERSON NUMBER"
```

*[additional dictionary statements]*

}

*To...*

```
dictionary using /home/user1/trk2018/data/trk2018tr_r.da {
```

```
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"  
column(7) str3 PN %3s "PERSON NUMBER"
```

*[additional dictionary statements]*

}

### **7B2. Linux: SAS**

In the following examples we assume that the user (user1) is working in a folder named **saswork** (/home/user1/saswork), and is creating a SAS version of HRS products in a separate sub-folders (e.g./home/user1/saswork/2018/sas).

#### **Building SAS system files (One Section)**

In the following example we assume that the user has downloaded the 2018 tracker dataset and placed the files in a folder called **trk2018** (/home/user1/saswork/trk2018) with the ASCII data file (.da) stored in subfolder **data** (/home/user1/saswork/trk2018) and the syntax file (.sas) in subfolder **sas** (/home/user1/saswork/trk2018/sas). Next step is to modify trk2018tr\_r.sas to match the folder structure:

In file trk2018tr\_r.sas:

*Change from...*

```
LIBNAME trk2018 'c:\trk2018\sas\';  
DATA trk2018.trk2018tr_r;  
INFILE 'c:\trk2018\data\trk2018tr_r.da' LRECL = 1028;
```

*To...*

```
LIBNAME trk2018 '/home/user1/saswork/trk2018/sas/';  
DATA trk2018.trk2018tr_r;  
INFILE '/home/user1/saswork/trk2018/trk2018tr_r.da' LRECL = 1028;
```

When the SAS file is run, it will create file trk2018tr\_r.sas7bdat in folder /home/user1/saswork/trk2018/sas/.

### **Building SAS system files (Multiple Sections)**

In the following example we assume that the user has downloaded the HRS 2018 Core dataset and placed the files in a folder called hrs2018 (/home/user1/saswork/hrs2018) with the ASCII data files (H18{sec}\_{lvl}.da) stored in subfolder **data** (/home/user1/saswork/hrs2018/data) and the syntax files (H18{sec}\_{lvl}.sas) in subfolder **sas** (/home/user1/saswork/hrs2018/sas).

Important: Begin by modifying each syntax file as follows:

*Change all occurrences of...*

```
LIBNAME H2018 'c:\hrs2018\sas\';
```

*To...*

```
LIBNAME H2018 '/home/user1/saswork/hrs2018/sas/';
```

Change the INFILE statement in each .sas file from...

```
INFILE 'c:\hrs2018\data\H18{sec}_{lvl}.da' LRECL = nnn;
```

*To...*

```
INFILE '/home/user1/saswork/hrs2018/data/H18{sec}_{lvl}.da' LRECL=nnn;
```

Example

```
INFILE '/home/user1/saswork/hrs2018/data/H18A_H.da' LRECL=87;
```

## **8. Documentation**

There are several types of documentation available for use with the 2018 HRS Core (Final, Version 1.0) data release. These include a codebook and the 2018 box-and-arrow questionnaire. In addition, 2018 variables have been added to the [Online Concordance](#).

### **8A. Codebook**

The HRS 2018 Codebook is provided as a series of 40 ASCII text files, as well as a file containing all sections. There is a codebook file corresponding to each data file. Each variable has its own codebook entry. The format of the codebook is, for the most part, consistent with all previous releases.

#### **8A1. Variable Names**

Variable names begin with a letter designating the wave of data collection (Q for 2018), followed by the section letter, and numbers after the section letter. For example, QC001 where Q=2018, C=section C (physical health), and 001 is the variable number. Variables from the preload section of the instrument will have either QX or QZ as prefix letters. The X indicates a variable that is updated

by data collected in later sections of the questionnaire, whereas the Z indicates preloaded data that were not changed by subsequent answers to questions.

For example:

```
QX007_R    RESP FAM/FIN TYPE - UPDATED
QZ077_R    PREV WAVE R FIN/FAM TYPE
```

QX007\_R indicates that the preloaded Financial or Family respondent was changed, or updated, later in the instrument from what had been preloaded (or assigned) prior to the start of the 2018 interview.

### **8A1a. Multiple-response and Looped Variables**

There are two types of variables with multiple mention indicators. First are simple multiple mentions and second are multiple mentions within loops.

Simple multiple mention variables take the form: (wave prefix) + (section letter) + (variable number) + (mention number). For example, QN219M1 through QN219M5 are 2018 variables from section N with one through 5 mentions.

Variable names for multiple mentions to questions within a loop take the form: (wave prefix) + (section letter) + (variable number) + (underscore) + (loop iteration) + (letter designating mention number). For example, QN049\_1M1, is a 2018 variable from section N, variable number 049 in the first iteration of the loop, and the first mention.

Simple loop variables (not a multiple mention) have an underscore ( \_ ) in their name and a suffix that designates the loop, e.g., QN025\_1.

For variables that have a "W" right after the section designator, the variable names are slightly different. Variable names for multiple mentions to questions within a W-loop take the form: (wave prefix) + (section letter) + ("W") + (variable number) + (letter designating loop iteration) + (mention number). For example, QKW097A1, is a 2018 variable from section K, variable number 097 in the first iteration of the loop, and the first mention. Other non-multiple mention variables within this type of loop are named with the letter designating the loop iteration. For example, QKW002A, is variable number 002 in the first iteration of the loop.

Null multiple mention variables and variables from null loops beyond the first mention or first loop are not included in the data. It is generally the case that one null multiple mention and one null loop was retained.

### **8A1b. Masked Variables**

To protect the confidentiality of the information that respondents provide, a number of variables have been masked or are simply not included in the Final release public dataset. Some of these variables may be made available to analysts as restricted data. See our Web site for details.

Names, addresses, days of birth, information on geographical relocation and similar variables are not included in publicly released files.

Geographical locations are recoded to a level no more detailed than U.S. Census Region and Division. Data on the highest educational degree earned have been further grouped together to increase cell sizes. The 2010 U.S. Census codes have been used to code the occupation and industry data in 2018.

The names of variables that were masked for confidentiality end in the capital letter "M"; for example, variable QX026M (1ST ADDRESS STATE - MASKED) and variable QB024M (FATHER USUAL OCCUPATION - MASKED).

#### **8A1C. Other Specify Questions, Comments and Open Ends**

"Other Specify" and "Open End", or questions that are answered with text (e.g., vocabulary words, industry and occupation) are included in final data releases. Similarly, the Final release data also include comments made by respondents in the course of the interview. For the Final release, HRS staff reviewed these comments for selected questions, and the coded answer was changed if it was determined that the comment changed the substance of the recorded answer.

#### **8A2. Other Types of Documentation**

In addition to this document and the codebook, three additional types of documentation are available.

##### **8A2a. Overview of HRS Public Data Files for Cross-sectional and Longitudinal Analysis**

This is a thorough document that provides a description of structure and content for all HRS public data files and a detailed explanation for handling the longitudinal nature of the survey. It is located here:

<http://hrsonline.isr.umich.edu/sitedocs/dmgt/OverviewofHRSPublicData.pdf>

##### **8A2b. Box and Arrow Questionnaire**

The research community has referred to the type of documentation that describes the questions asked in the interview as a "questionnaire". Since the 2016 HRS data were collected using a Computer Assisted Interview (CAI) program, a traditional hard-copy questionnaire was not produced as part of the data collection phase. Therefore, in order to document question sequencing, we have provided a current-wave version of the traditional box and arrow questionnaire.

##### **8A2c. Cross-Wave Tracker File**

The cross-wave tracker file contains basic demographic information, interview status, and if, when and how an interview was conducted during a specific data collection period. The cross-wave tracker file also contains weight variables. The tracker file contains one record for every person who was ever eligible to be interviewed in any wave. Please refer to the [Cross-Wave Tracker data description](#), located at the top of our [Data Descriptions and Release Notes](#) page for a more detailed description.

#### **8B. Master Codes**

A master code file contains detailed codeframes used in several sections of the codebook. The master codes include health conditions, occupation codes, industry codes, and state and country codeframes. The master codes appear in [Appendix B](#).

#### **9. Additional Notes**

The following are miscellaneous additional notes regarding the 2018 HRS Core (Final, Version 1.0). If we become aware of additional issues, they will be posted on our Web site in the [Data Alerts](#) section.

##### **9A. Households with No Family or Financial Respondents**

As noted earlier in this document, the data collection design was to have asked most questions of all respondents and some questions of just a designated coverscreen, or family, or financial respondent on behalf of the household. However, occasionally that is not what happened. For some households we did not

obtain an interview from a family or financial respondent. There were 450 households that had no family respondent; 286 households had no financial respondent. There are 2 missing coverscreen respondents in this wave. The household records for these households contain null values for the missing information. Households missing a family or financial respondent can be identified, respectively, by values of "Blank. No family/financial respondent" (in the household record) in the following variables:

- QPN\_FAM - 2018 FAMILY RESP PERSON NUMBER
- QPN\_FIN - 2018 FINANCIAL RESP PERSON NUMBER

**9B. Unfolding Bracket Variables and Imputations**

Typically, a series of unfolding bracket questions followed a lead-in question asking for an amount. If an actual amount was not given, a series of "unfolding" questions were asked. The manner in which the unfolding questions were programmed (Blaise) is different for the 2002 through 2010 data compared to the CAI (SurveyCraft) software used for 1993 through 2000. This change was transparent to the respondents, since exactly the same questions were asked with the new software as would have been asked with the old software; but it did have an implication for the data that were actually stored and also for the data that are released.

Instead of storing the response to each unfolding question, three summary variables were generated: the minimum and maximum values for the amount, given the answers to the unfolding questions, and if the last answer a respondent gave in an unfolding sequence was either "Don't Know" or "Refused," what that answer was. In 2002, if the Respondent said "more than" to the unfolding question with the highest value, then the maximum value was stored as ten times that value. However, in 2004 and 2010, if the Respondent said "more than" to the unfolding question with the highest value, then the maximum value was stored as 99999996.

For most analysts, those three variables (and in particular, the minimum and maximum of the possible range) will be sufficient for analyses. For any analyst who needs the more detailed information, it should be noted that the three variables, combined with the information about the unfolding questions provided in the box-and-arrow and codebook, are sufficient to allow the analyst to reconstruct the sequence of questions asked of any respondent, and the answers to each of those questions in many of the unfolding sequences.

For other sequences -- those in which respondents were randomly assigned to one of three "entry" points for the first unfolding question -- the analyst will also need to take into account a fourth variable (located in the preload sections) that specifies the entry point for each respondent. The following example shows the preload variable (PZ041) and the unfolding sequence that uses the random entry point from QZ041.

Example Random Entry Assignment Variable from Preload:

Preload Variable from the data file H18pr\_h:

```

.....
QZ041                PREASSIGNED UNFOLD RANDOM VALUE - SELF EMPLOYMENT
Section: PR      Level: Household      Type: Numeric      Width: 1      Decimals: 0
Ref: HH.X041_UnfSEmpInc_V

UNFOLD ASSIGN - SELF EMPLOYMENT INCOME
.....
4144                1.  RANDOM ASSIGNMENT 1
4132                2.  RANDOM ASSIGNMENT 2
4189                3.  RANDOM ASSIGNMENT 3

```

.....  
 Unfolding Series from section Q that uses QX041 to assign respondents an entry point:  
 .....

QQ016 R INCOME FROM SELF EMPLOYMENT - MIN  
 Section: Q Level: Household Type: Numeric Width: 6 Decimals: 0  
 Ref: SecQ.RIncome.Q016\_

Did it amount to less than \$\_\_\_\_ , more than \$\_\_\_\_ , or what?

PROCEDURES: 3Up, 2Up1Down, 1Up2Down  
 BREAKPOINTS: \$5,000, \$10,000, \$25,000, \$100,000  
 RANDOM ENTRY POINT ASSIGNMENT [1 (\$5,000)] or [2 (\$10,000)] or  
 [{NOT 1 and NOT 2} (\$25,000)] AT X041

.....  
 129 0. Value of Breakpoint  
 7 5000. Value of Breakpoint  
 17 5001. Value of Breakpoint  
 1 10000. Value of Breakpoint  
 25 10001. Value of Breakpoint  
 5 25000. Value of Breakpoint  
 34 25001. Value of Breakpoint  
 3 100001. Value of Breakpoint  
 12246 Blank. INAP (Inapplicable); Partial Interview  
 .....

.....  
 QQ017 R INCOME FROM SELF EMPLOYMENT - MAX  
 Section: Q Level: Household Type: Numeric Width: 8 Decimals: 0  
 Ref: SecQ.RIncome.Q017\_

\*

.....  
 44 4999. Value of Breakpoint  
 7 5000. Value of Breakpoint  
 18 9999. Value of Breakpoint  
 1 10000. Value of Breakpoint  
 18 24999. Value of Breakpoint  
 5 25000. Value of Breakpoint  
 29 99999. Value of Breakpoint  
 99 99999996. Greater than Maximum Breakpoint  
 12246 Blank. INAP (Inapplicable); Partial Interview  
 .....

.....  
 QQ018 R INCOME FROM SELF EMPLOYMENT - RESULT  
 Section: Q Level: Household Type: Numeric Width: 2 Decimals: 0  
 Ref: SecQ.RIncome.Q018\_

\*

.....  
 10 0. No Breakpoint values given during interview  
 18 98. DK (Don't Know); NA (Not Ascertained)  
 72 99. RF (Refused)  
 12367 Blank. INAP (Inapplicable); Partial Interview  
 .....

### **9C. 2018 Unfoldings Issues**

Due to a programming issue, some errors were introduced into unfoldings data obtained from interviewer-administered interviews in 2018 under the following circumstances:

- The interviewer pressed the "enter" key on the keyboard without selecting a code while in the unfolding.
- The interviewer backed up to a previous field while in the unfolding.
- The interviewer backed up into an unfolding while outside of the unfolding and changed a response.
- Unfolding variables that exited the unfolding procedure prematurely.

To correct problems with unfoldings data, HRS staff compared audit trail data, which presents a record of the entries made and actions taken by interviewers as they completed an interview, against the Blaise data. Where possible, the audit trail data was used to reconstruct the interview data however not all unfoldings problems could be resolved due to incomplete or missing audit data.

### **9D. Modules for the 2018 Data Collection**

There are 10 modules for 2018 HRS. The module data can be found in the file H18V\_R. Topical areas of the modules include:

Module 1: Financial Decision Making and Coping  
Module 2: Understanding Debt  
Module 3: Dental Health and Dental Health Services  
Module 4: Attitude Toward and Use of Marijuana (Cannabis) in Older Americans  
Module 5: Entrepreneurship  
Module 6: Perceived Effects of Behaviors and Conditions on Longevity  
Module 7: Working Longer (Age < 65)  
Module 8: Overuse of Health Care  
Module 9: End of Life Decisions  
Module 10: (65 AND OVER) HRS Adaptation of Patient Assessment of Care for Chronic Conditions

Select variables of Module 4 (QV401 to QV415) are available only as a sensitive health data product. Refer to this [link](#) for more information.

### **9E. Explanation of the Difference between Tracker and Core Data Releases**

There are some areas where the Tracker File and the core data are different. Below are some examples. The examples rely on data from the HRS 2008 Core.

LSUBHH - The tracker file assigns a '9' for all new spouses in 2008 for the previous wave's SUBHH number. The 2008 Final Release data, however, lists the SUBHH number of the household that the new spouse married into, since the new spouse will 'inherit' many of the relationships from that household.

LPN\_SP - Even if a spouse did not give an interview in 2008, a spouse PN (LPN\_SP) will exist in the core data. Additionally, for a non-original R's new spouse, we assign a spouse PN (LPN\_SP) and track the spouse's influence on the household with that number, even though we will never interview that person. In contrast, the tracker file will not reference these spouses.

Family and Financial R Assignments - As we keep a record of a non-interviewed spouse in the core data, we also release their assigned role in the household (i.e. family or financial R) with a listing for LPN\_FIN, and LPN\_FAM in the household sections. The tracker file will simply list the assignments of the

people interviewed. Therefore, for example, the 2008 Core Final data has a blank line in Section H for a household where '020' was the non-interviewed financial R. The tracker file would show the same household as not having a financial R.

Marital Status - It is important to note that marital status, as it was assigned in the 2008 data (LB063) may be different from the marital status variable (xMARST) in the Tracker file. Please refer to the Cross-Wave Tracker data description, located at the top of our [Data Descriptions and Release Notes](#) page for a more detailed description of how marital status was assigned and the criteria used to reclassify respondents. The marital status variable in the Tracker file was constructed by looking at several different sources of data, whereas the marital status variable in the 2008 Core Final data was not changed using outside sources, in order to preserve the flow through the instrument for respondents.

#### **9F. Enhanced Face-to-Face Sample Design and Content**

In 2006, HRS initiated what is referred to as an Enhanced Face-to-Face Interview. In addition to the core interview, the Enhanced Face-to-Face Interview includes a set of physical performance measures, collection of biomarkers, and a Leave-Behind Questionnaire on psychosocial topics. A random one-half of households were pre-selected for the enhanced face-to-face interview in 2006, with the other half of the sample selected for 2008, and the design is repeated in each subsequent wave. In coupled households, both members of the couple are selected. Selected respondents who completed a self (as opposed to proxy) interview, in-person (at least through Section I - the physical measures and biomarkers section), and who were non-institutionalized at the time of the interview were eligible for the physical measures and biomarkers components. This same group of respondents, plus those for whom an in-person proxy interview was completed, were also eligible for the Leave-Behind Questionnaire.

##### *Psychosocial Leave-Behind Questionnaire (Section LB\_R)*

In 2004, HRS added a new feature for data collection in the form of self-administered questionnaires that were left with respondents upon the completion of an in-person Core Interview, referred to as the Leave-Behind Questionnaire. The purpose of the Leave-Behind Questionnaire is to collect additional information from respondents without adding to the interview length. In 2018, as in previous data collections since 2006, the Leave-Behind Questionnaire was incorporated into the Enhanced Face-to-Face Interview. The Leave-Behind Questionnaire administered in 2010 is called the Participant Lifestyle Questionnaire, and it includes questions on participation in general activities, relationships with others, and views on their life in general as well as specific aspects of their life.

##### *Physical Performance Measures and Biomarkers (Section I\_R)*

- Blood pressure
- Hearing test
- Breathing test (peak flow)
- Grip strength
- Balance tests (semi-tandem, side-by-side, and with [30/60] second full-tandem)
- Timed walk (8 ft., eligible if 65 or older)
- Height
- Weight (eligible if weight is under 300 pounds)
- Waist circumference



- Saliva (for which DNA was extracted and stored - eligible if saliva invalid previous wave or no saliva collection previous wave)
- Dry blood spots (analyzed for Hemoglobin Alc, total cholesterol and HDL cholesterol)

With the exception of the timed walk, which was administered only to respondents 65 years of age or older, the physical measures and biomarkers were conducted on the full enhanced face-to-face sample.

Three separate consents were obtained to cover: 1) all of the physical measures, plus blood pressure; 2) saliva sample; and 3) dry blood spots. The physical measures booklet, which the interviewers used to administer the physical measures and biomarkers, is available on the HRS website [Physical Measures 2018](#). The booklet contains the consent forms, as well as instructions and protocols for all of the measurements.

### **9G. Web Mode**

In 2018, for the first time HRS added Web as an alternate mode for data collection for the core biennial interview. Web was offered as an alternative for telephone and regular face-to-face respondents only; respondents in the half-sample scheduled for the enhanced face-to-face interview were not eligible for Web this wave. Among the half-sample scheduled for telephone or regular face-to-face in 2018, there were just over 3,700 sample members who were eligible for Web based on a prior report of internet access along with other selection criteria (e.g., English speaking, self-respondent, non nursing-home resident in prior wave). Of the 3,700 Web eligible sample members, 60% were randomly selected for the Web sample with the remainder receiving their usual mode of either telephone or face-to-face for comparison purposes.

Participants in the Web sample received an advance letter inviting them to complete their 2018 interview on the Web and containing a URL to access the survey. This was followed two days later by an email with a link to the survey. A phone number was provided for respondents to contact us if they preferred to complete their interview by phone or needed assistance with the Web mode. Email and mail reminders were sent on a regular schedule.

Participants in the Web sample who had not completed the survey by Web after a predetermined period of no activity were contacted for a telephone interview and were able to resume the survey where they left off in the new mode. The Web survey was programmed to be as close as possible to the other modes. Rather than break the survey into components we designed it to allow respondents to work at their own pace and to stop at any point and return later to continue, even if they required several sessions to complete it.

### **Web Mode Variables**

Within each section data file, mode variables are provided to aid in identifying which mode a respondent was in when they completed a given section: phone, face-to-face and Web. For Web we make a further distinction of "Web" and "Web-small" to differentiate between respondents who used a PC versus those who used smartphones or tablets. Respondents could switch back and forth between PC and smartphone or tablet throughout the interview.

### **Web Non-Response**

In the web version of the questionnaire, respondents are allowed to leave any given question that was presented on the screen unanswered to comply with the voluntary nature of the survey. This was distinctly different from the interviewer-administered version of the questionnaire which did not allow

questions to be "empty." If the respondent could not or refused to answer, the interviewer could select "Don't Know" or "Refused" as appropriate. Web non-response cases were reviewed by HRS staff. We have incorporated "web non-response" indicators in the data to signal where a question was presented to the respondent but they did not answer. The web non-response flags are based on the final path taken by the respondent through the interview. If the respondent backed up to change an answer and went down a different path, the data for the first path was not retained.

**Web Metadata**

The Web survey was programmed to be as close as possible to the other modes. There are instances where the question text for Web differs from the telephone/in-person interview question text. The question text is documented in the codebook as "WEB-ADMINISTERED TEXT" as shown below. The questionnaire contains a complete description of the interview content by section including question wording, order and flow.

```

-----
QB000                                LIFE SATISFACTION
Section: B      Level: Respondent      Type: Numeric      Width: 2      Decimals: 0
Ref: SecB.B000_

Now, please think about your life-as-a-whole. How satisfied are you
with it? Are you completely satisfied, very satisfied, somewhat
satisfied, not very satisfied, or not at all satisfied?

WEB-ADMINISTERED TEXT:
Now, please think about your life-as-a-whole. How satisfied are you
with it?
.....
3724          1. COMPLETELY SATISFIED
7182          2. VERY SATISFIED
4561          3. SOMEWHAT SATISFIED
640           4. NOT VERY SATISFIED
223           5. NOT AT ALL SATISFIED
127           8. DK (Don't Know); NA (Not Ascertained)
26            9. RF (Refused)
663          Blank. INAP (Inapplicable); Partial Interview

```

**Section D Web Word Recall**

HRS generated new variables for the Section D Web Immediate and Delayed Word Recall as described in the tables below.

**Immediate Recall**

Variable Name	Description
QD182WM#	WEB WORD RECALL IMMED. (where # denotes the multiple mention indicator 1, 2, 3, etc.)
QD174W	WEB NUMBER GOOD - IMMEDIATE
QD175W	WEB NUMBER WRONG - IMMEDIATE
QD176W	WEB NUMBER FORGOTTEN - IMMEDIATE
QD177W	WEB NONE REMEMBERED - IMMEDIATE - FLAG

**Delayed Recall**

Variable Name	Description
QD183WM#	WEB WORD RECALL DELAYED (where # denotes the multiple mention indicator 1, 2, 3, etc.)
QD184W	WEB NUMBER GOOD - DELAYED
QD185W	WEB NUMBER WRONG - DELAYED
QD186W	WEB NUMBER FORGOTTEN - DELAYED
QD187W	WEB NONE REMEMBERED - DELAYED
QD191W	WEB WORDLIST CHECK DID R USE AID

## **9H. Whole Blood Draws**

Beginning in 2016, The Health and Retirement Study started collecting whole blood samples from respondents. Individuals are asked to consent to the whole blood draw at the end of the core interview and are mailed a \$50 token of appreciation subsequent to the consent and before the whole blood draw appointment. An "acknowledgement of consent" is signed at the time of collection. In 2018, the entire LBB (Late Baby Boomer) cohort, anyone eligible for the whole blood draw in 2016 who did not consent to or complete a WBD request at that time, and any new respondents were eligible to participate. This request was made to all eligible self-interview Rs (regardless of mode of interview or preferred language), provided they were not in a nursing home.

## **9I. Section G: Functional Limitations and Helpers**

Due to faulty programming, there were serious problems with variables QG004-QG007 in Section G: Functional Limitations and Helpers. These are part of a set of items derived from Nagi. The programming errors had the effect of skipping many people out of being asked these questions. As a result, a majority (87%) of respondents skipped at least one question within G004-G007 when they should have been asked these questions. This issue affects all interview modes in 2018.

The following variables were impacted by this error:

QG004 DIFFICULTY- SITTING 2 HOURS  
QG005 DIFFICULTY- GETTING UP FROM CHAIR  
QG006 DIFFICULTY- CLIMBING STAIRS  
QG007 DIFFICULTY- CLIMBING 1 FLIGHT OF STAIRS

In addition, the sequence of questions on difficulty with activities of daily living were not asked of people who reported no difficulties with a subset of the Nagi items that includes G004, G005, and G007. As a result of faulty skips of those questions some people may not have been asked the ADL sequence who should have been. Thus, the following variables, to a lesser extent, have been impacted by this error:

G014 - DIFFICULTY- DRESSING  
G016 - DIFFICULTY WALKING  
G021 - DIFFICULTY BATHING  
G023 - DIFFICULTY EATING  
G025 - DIFFICULTY GET IN/OUT BED  
G030 - DIFFICULTY USING TOILET

For cases affected by this error, HRS imputed missing data on G004-G007 and G014, G016, G021, G023, G025, and G030 for the 2018 Final Core release. Based on imputed responses to the ADL sequence, a very small number of respondents may have incorrectly not been asked the ADL helper questions (G17, G18, G20, for example). Given the very small number of cases involved, data for these variables was not imputed.

## **9J. Errata**

The following list of questions were erroneously omitted from the 2018 questionnaire thus they were never asked of respondents, and are subsequently not included in the 2018 HRS Final Core data:

Section F: F061 and F186  
Section J: J530, J531 and J532

## **9K. Summary of Data Model (DM) Changes during 2018 Production**

During the field period, changes to the instrument need to be made in order to correct errors in the programming or to improve the quality of the data. The following is a summary of these changes. The variable QVDATE exists in all of the data files and it tells what version of the data model was used to collect a given interview.

### **Data Model 2 Changes:**

#### **Section A2 - Coverscreen**

**A958AFName:** In order to address a blank fill that came up when the individual's name is unknown, we implemented a signal for an "alias name", such as "Danny's partner" or "Cindy's partner".

#### **Section D - Cognition**

**D106:** Code was updated in order to address an issue where "wrong word" was coming before the first word on the list.

**D148:** Due to a programming error, code 11 was never used. This error has now been fixed.

--

### **Data Model 3 Changes:**

#### **Section A2 - Coverscreen**

**A228\_HHMSummary:** A fill condition was added so that when the R lives in a Nursing Home but the spouse/partner still lives in the couple's home it reads: "Just to confirm, NOT INCLUDING SPOUSES, PARTNERS, OR CHILDREN NO ONE ELSE IS LIVING IN YOUR HOME IN [CITY, STATE]. If this is incorrect, please click on the "Add a resident" button on the right."

#### **Section D - Cognition**

**D194:** Updated interviewer text from "Start timing as soon as you tell the R to begin." to "Do not use [Enter] until the end of the task count."

**D244\_DisplayD106CAPI:** Corrected a programming error that was triggering an error message when "None remembered" was selected by itself.

**D338:** Changed interviewer instructions.

### **Section E - Children & Household Members**

**E146\_KidOver10City:** Corrected a programming issue that was causing resumed suspended interviews to drop city/state that had previously been entered.

### **Section G - Functional Limitations and Helpers**

**G098M:** Changed question text to read: "What is the relationship to you of that person or persons?"

### **Section H - Housing**

**H100\_HousingAssoc and H101\_SeniorComplex:** Corrected the interviewer text "Ask for record" which was showing as question text at H11 and missing from H101.

### **Section J - Employment**

**J172\_HrsWrkPerWk:** Added an interviewer instruction for all modes cases which reads: "1-95 hours".

**J176\_WksPaidVac:** Added an interviewer instruction for all modes cases which reads: "0-52 weeks".

**J612:** Updated the interviewer instruction for all modes cases to the bottom of the range from 1 to 0.

**Section M2 - Disability**

**M685, M593, M605 and M598:** Added other: (Specify) to missing fields.

**Section N - Health Services & Insurance**

**N305 and N306:** Corrected an error with the husband/wife/partner fill not showing up in Web.

**N036:** Added the word "late" to the fln035 fill to be more sensitive to respondents with deceased spouse/partners.

**Section V - Experimental Modules**

**V000\_ModuleIntro:** For Web interviews, removed all options and changed 1. to "continue".

--

**Data Model 4 Changes:**

**Section A - Coverscreen**

**A166\_A020TSameSpP\_A and A020:** Updated the fill so that the word "spouse" is displayed if a married Rs gender is missing.

**Section D - Cognition**

**D194\_Animals:** updated to include newly added interviewer instructions in Spanish.

**D245:** Dropped help text meant for D197 which was showing up here in error.

**Section T - Wills, Insurance and Trusts**

**T116-T128, T140-T145 and T204-T259:** These questions were found to have a programming error where fields were not defined properly. The definitions were restored.

--

**Data Model 5 Changes:**

**Section A2 - Coverscreen**

**A225ALiving and A235:** Corrected sa programming issue where data was not being saved at A225 and A235.

**Section B - Demographics**

**B001:** To be consistent with variable renaming in Section A, the references to A213 have been changed to A231.

**Section F - Parents & Sibling/Couple Decisions**

**A231\_RMarSep:** All husband/wife/partner fills that previously referenced only A034 now also reference A231.

**F080\_SibRoster:** Modified the telephone/in-person interviewer instructions.

**F237\_SiblingSummary:** A condition was added to address some Web instructions that were showing up in the telephone/in-person instructions when the R had no siblings reported.

**Section H - Housing**

**H001\_FarmRanch:** All husband/wife/partner fills that previously referenced only A034 now also reference A231.

--

**Data Model 6 Changes:**

**All Sections:** Converted all state lists (telephone/in-person only) to drop down.

**Section A - Coverscreen**

**A078\_YrsCurRes:** Updated telephone/in-person interviewer instructions to read "INSTR: If less than one year, enter '1'; Enter '95' if R says 'all my life'.

**Section C - Health**

**C006, C011, C038, C062 and C285:** Fixed minor grammatical issues.

**Section E - Children & Household Members**

**E022:** Changed fill text to read "late husband" instead of "late wife".

**E037:** Updated the codeframe response option 2 to read "HELP R (AND/OR SPOUSE)."

**Section H - Housing**

**H151:** Updated the question text to make it more clear that rental properties should be excluded from responses.

**Section S - Widowhood/Divorce**

**S003:** Updated question text and changed the fills so that they default to "spouse". Updated unfolding instructions for spouse proxy and non-spouse proxy throughout Section S.

**S057 and S058:** Made corrections to question text and fills.

**Section V, Module 3 - Dental Health and Dental Health Services**

**V170:** Updated programming so that V170 is skipped if the R has no teeth.

**Section V, Module 7a - Working Longer (Age <65)**

**V706:** Added a prompt ("Values over 120 are unlikely, please check.") for Rs who answered greater than 120 minutes.

**V707:** Added a condition to ensure V707 is skipped if V706 is greater than 60.

**V741:** Due to confusion among the interviewers, question order was changed so that V706 comes before V741, V732 is before V742 and the interviewer instructions were updated accordingly. Added a prompt so that if R answered values 11-995 the interviewer was prompted to double check the entry.

**Section W - Internet Use & Social Security Permission**

**W310:** Added a prompt to validate the entry if W311=1 AND W310 code is NOT 2, 4, 5 or 9 or if W31W=2 and W310 code is not 1, 3, 4, 5, or 9.

--

**Data Model 7 Changes:**

**Section A - Coverscreen**

**A023:** Updated the programming to catch cases where R has the same spouse/partner but not spouse proxy.

**Section D - Cognition**

**D143:** Updated interviewer instructions that orient the interviewer to where they are in the subtraction (e.g. first, second, etc.).

**Section E - Children & Household Members**

**E027:** (Web and telephone/in-person) added a prompt to confirm the age entered.

**Section H - Housing**

**H001:** Updated the interviewer instructions.

**Section J2 - Pensions**

**J356:** Question order logic was changed to match the questionnaire.

**Section J3 - Retirement and Social Security**

For the following pairs of telephone/in-person variables, the "Year" was grouped with its stem variable: J564/J565, J568/J569, J572/J573, J574/J575, J576/J577 and J559/J960.

**Section N - Health Services and Insurance**

**N188:** Corrected the survey for instances when values should have been assigned to N180 (based on responses to V443 and N444) but were not.

**Section P - Expectations**

**P113:** Updated Survey to not allow empty answers.

**P182:** Updated programming so that Rs age 65 to 69 get asked this question.

**P199:** Updated programming so that the question is asked even if P018 is 0%.

**Section U - Asset Verification**

**U0003:** Updated the program so that there are values in the stem question only and not the unfolding (i.e. min, max and result) questions.

**Section V, Module 7a - Working Longer (Age, 65)**

**U741:** Added restrictions to enforce the rules from the questionnaire (e.g. restricted to 0 to 10 hours).

--

**Data Model 8 changes:**

**Section A - Coverscreen**

**AQ078:** Updated interviewer instructions for web survey to read "If less than one year, enter '1'".

**Section A2 - Coverscreen**

**X056:** Changes were made to address a programming error where inappropriate follow-up questions were being asked about deceased children.

**A137:** Corrected a flow problem where respondents were routed to A140 instead of A138; updated interviewer instructions.

**Section D - Cognition**

**D159:** Made a correction to the web survey so that only interviewer assisted (telephone/in-person) respondents get the vocabulary series.

**Section E - Children & Household Members**

**E027:** Updated the programming to not ask this question if the child is a duplicate.

**Section H - Housing**

**H115:** Made an adjustment to the flow so that Rs will get the question when A237=DK/RF.

### **Section N - Health Services and Insurance**

**N261:** During the data collection period, this variable was changed from a single mention to a multiple mention.

**N280:** If an R answered DK/RF, N090 was not updating; updated telephone/in-person programming to have the prompt "Your responses are important to us. Please try to answer each question."

### **Section T - Wills, Insurance and Trusts**

**T254:** Problem identified with Rs who identify one parent as deceased and the other as DK. Updated the fill so that if the parent is dead or if the response is DK, the fill works correctly.

### **Section U - Asset Verification**

**U001:** Addressed a programming issue where data was not cleared for Rs who went through an unfolding, backed up and entered a value at the stem field. Updated so that if R leaves U001 empty, it is treated like a refusal and the R is skipped out of Section U.

### **Section V5 - Entrepreneurship**

**V330:** Updated question text to: "I need to keep my health insurance through my employer."

### **Section V7a - Working Longer (Age <65)**

**V706:** Updated the telephone/in-person programming so that Rs who work from home are routed to V708 instead of V707.

**V708:** Updated the telephone/in-person and Web programming so that if an R provides an answer at V706/V741, moves forward in the survey and then backs up to change their response at V706/V741, the new answer is stored in V743.

--

### **Data Model 9 Changes:**

#### **Section D - Cognition**

**D171\_Assist:** Activated D171\_Assist for web respondents to act as an indicator that a respondent completed Section D; changed the web instruction text to read: "Families and friends often help one another in different ways. Part of our research involves finding out how they do that."

**D106:** Data was inadvertently being cleared for respondents who were in web mode and switched to interviewer assist mode. D106 was corrected to save after a mode switch or after the respondent leaves Section D in web and/or interviewer assist.

#### **Section E - Children & Household Members**

**E129\_E012:** Updated Introductory question text for interviewer assisted and exit interviews to read "Families and friends often help one another in different ways. Part of our research involves finding out how they do that."

#### **Section P - Expectations**

**P198/P199:** Made corrections to disallow answers greater than 100; also made corrections so that respondents who do/do not meet the age criteria are/are not skipped out of the question.

**P028:** Updated the interviewer instructions for web respondents.



**P102:** Updated the question text to read "Do you think that it is about equally likely that you will die before 75 as it is that you will live to 75 or beyond, or are you just unsure about the chances?"

**P181 and P182:** Corrected errors in the ask rules for determining who gets P181 and P182 to (1) make sure that respondents age 65-69 got asked and (2) to ensure that P181 and P182 are asked even if P018 is 100%.

#### **Section V - Experimental Modules**

**V900\_LeaveBehind:** Added W311=FTF as a condition to get into V900 (in addition to X090 and Section I) to prevent respondents who switch to phone between section I and W311 from getting the Self-Administered Questionnaire.

--

#### **Data Model 10 Changes:**

##### **Section A2 - Coverscreen**

**A208:** A programming error was discovered where data was retained for respondents with children (A208) who added the child's name at variable X058 and then went back and said no at A208. The data copying error was fixed.

##### **Section D - Cognition**

**D106:** Data was inadvertently being cleared for respondents who were in web mode and switched to interviewer assist mode. When the interviewer resumes the interview, the R resumes at the beginning of Section D.

--

#### **Data Model 11 Changes:**

**All Sections -** Corrected the "Just to confirm" fill language that displayed when web respondents switch to interviewer assist mode.

--

#### **Data Model 12 Changes:**

##### **Section M1 - Disability**

**QMW238A and QMW239A:** Removed extraneous characters from question text, changed question text from "[Social Security Disability/Social Security][program]" to "[Social Security Disability/Insurance]."

#### **9L. New/Modified Questions in HRS 2018**

**Section A: Coverscreen** - A000\_1, A000\_2, A237, A247, A221, A225 (CHILD), A224 (CHILD), A226 (CHILD), A971a (CHILD), A221 (CHILD), A225 (HHM), A235 (HHM), A228 (HHM), A226 (HHM)

**Section C: Health** - C184, C300, C298, C297, C299, C305, C306, C307, C308, C309, C310, C311 C312, C313, C314, C315, C316, C301, C302, C303, C304

**Section D: Cognition** - D237, D238

**Section F: Parents & Sibling/Couple Decisions** - F241AConfirm, F243, F245, F244, F246, F237

**Section J: Employment** - J966, J965

**Section N: Health Services & Insurance** - N444, N445, N451, N452

**Section T: Wills, Insurance and Trusts** - T253, T254, T255, T256, T257, T258, T259

**Section V: Experimental Modules** - The full content of the Experimental Modules changes each wave of data collection.

**9M. Changes to HRS 2018 Core Final Version 2.0**

Corrections were made in select sections to address issues with housing expenses, assets and income. The affected variables are listed below.

- Section H: QH004 QH020 QH014 QH016 QH078 QH079 QH083 QH163 QH164 QH165 QH167 QH168 QH169
- Section Q: QQ046 QQ047 QQ048 QQ051 QQ052 QQ053 QQ071 QQ072 QQ073 QQ077 QQ078 QQ079 QQ081 QQ082 QQ092 QQ093 QQ108 QQ109 QQ110 QQ149 QQ150 QQ153 QQ157 QQ158 QQ159 QQ160 QQ161 QQ167\_1 QQ168\_1 QQ220\_1 QQ221\_1 QQ222\_1 QQ220\_2 QQ221\_2 QQ222\_2 QQ223\_2 QQ238 QQ239 QQ240 QQ241 QQ242 QQ247\_1 QQ248\_1 QQ278\_1 QQ279\_1 QQ280\_1 QQ281\_1 QQ524\_1 QQ525\_1 QQ278\_2 QQ281\_2 QQ317 QQ327 QQ328 QQ329 QQ332 QQ333 QQ334 QQ335 QQ336 QQ338 QQ339 QQ340 QQ341 QQ342 QQ343 QQ346 QQ347 QQ352 QQ353 QQ364 QQ365 QQ366 QQ367 QQ368 QQ369 QQ372 QQ373 QQ375 QQ376 QQ377 QQ378 QQ379 QQ433\_1 QQ434\_1 QQ435\_1 QQ436\_1 QQ479 QQ480 QQ481 QQ483\_1 QQ484\_1 QQ487\_1 QQ486\_1 QQ488\_1 QQ489\_1 QQ490\_1 QQ482\_2 QQ483\_2 QQ484\_2 QQ487\_2 QQ486\_2 QQ488\_2 QQ482\_3 QQ483\_3 QQ484\_3 QQ487\_3 QQ486\_3 QQ488\_3
- Section U: QU001\_8 QU002\_8 QU022\_8B QU001\_18

**10. OBTAINING THE DATA**

**10A. Registration and Downloading the Data**

HRS data are available for free to researchers and analysts at the HRS Web site. In order to obtain public release data, you must first register at our Web site. Once you have completed the registration process, your username and password will be sent to you via e-mail. Your username and password are required to download any data files.

By registering all users, we are able to document for our sponsors the size and diversity of our user community allowing us to continue to collect these important data. Registered users receive user support, information related to errors in the data, future releases, workshops, and publication lists. The information you provide will not be used for any commercial use, and will not be redistributed to third parties.

**10B. Conditions of Use**

By registering, you agree to the [Conditions of Use](#) governing access to Health and Retirement public release data.

**10C. Publications Based on Data**

As part of the data registration process, you agree to include specified citations and to inform HRS of any papers, publications, or presentations based on HRS data. Please send a copy of any publications you produce based on HRS data, with a bibliographical reference, if appropriate, to the address below.

Health and Retirement Study  
Attn: Papers and Publications  
The Institute for Social Research  
P.O. Box 1248  
Ann Arbor, MI (USA) 48106-1248

Alternately, you may contact us by e-mail at [hqsquestions@umich.edu](mailto:hqsquestions@umich.edu) with: "Attn: Papers and Publications" in the subject line.

## **11. If You Need to Know More**

This document is intended to serve as a brief overview and to provide guidelines to using the 2018 HRS Core (Final, Version 1.0) data. If you have questions or concerns that are not adequately covered here or on our Web site, or if you have any comments, please contact us. We will do our best to provide answers.

### **11A. HRS Internet Site**

Health and Retirement Study public release data and additional information about the study are available on the Internet. To access the data and other relevant information, point your Web browser to the [HRS Web site](#).

### **11B. Contact Information:**

If you need to contact us, you may do so by one of the methods listed below.

**Internet:** Help Desk at our Web site

**E-mail:** [hqsquestions@umich.edu](mailto:hqsquestions@umich.edu)

#### **Postal Service:**

Health and Retirement Study  
The Institute for Social Research  
The University of Michigan  
P.O. Box 1248  
Ann Arbor, MI 48106-1248

**FAX:** (734) 647-1186



## Appendix

### A. Examples of Sub-Household and Respondent Person Number and Other Person Number Assignments

In the first year of data collection, all households, consisting of either a single respondent or of two married or partnered respondents, were assigned a SUBHH of 0.

In subsequent waves, a SUBHH of 0 indicates that the original household has not split due to divorce or separation of spouses or partners, although one member of a couple may have died or a single respondent may have become married or partnered.

A value of 1 or 2 indicates a household in which the original couple split, divorced or separated. One of the original couple is assigned a SUBHH of 1; the other is assigned a SUBHH of 2.

A value of 5 or 6 indicates a previously split household split a second time. One of the couple from a SUBHH 1 or 2 retains a SUBHH of 1 or 2; the other is assigned a SUBHH 5 or 6.

A value of 7 indicates respondents from split household reunited<sup>1</sup>. It is important to understand these assignments when you merge records from different waves of the study.

#### A1. Married Couple Stays Married

Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 012345 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

At the time of the second cross-section the two respondents are still married, and each retains their HHID of 012345 and their SUBHH of 0 and his and her PN of 010 and 020, respectively.

#### Time 1

Household records

HHID=012345 ASUBHH=0

Respondent records

HHID=012345 PN=010 ASUBHH=0

HHID=012345 PN=020 ASUBHH=0

#### Time 2

Household records

HHID=012345 CSUBHH=0

Respondent records

HHID=012345 PN=010 CSUBHH=0

HHID=012345 PN=020 CSUBHH=0

---

<sup>1</sup>In addition, a SUBHH of 3 or 4 indicates the "household" of a deceased respondent who is considered to be in a household of his or her own. These values do not occur in these files because all records in these files are from living respondents.

## **A2. Couple Divorces**

Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 023456 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

By the time of the second cross-section, the couple has divorced. Both respondents retain the HHID of 023456, but one is assigned a SUBHH of 1 and the other is assigned a SUBHH of 2. Each original respondent retains his and her PN of 010 and 020, respectively.

### **Time 1**

Household records

HHID=023456 ASUBHH=0

Respondent records

HHID=023456 PN=010 ASUBHH=0

HHID=023456 PN=020 ASUBHH=0

### **Time 2**

Household records

HHID=023456 CSUBHH=1

HHID=023456 CSUBHH=2

Respondent records

HHID=023456 PN=010 CSUBHH=1

HHID=023456 PN=020 CSUBHH=2

## **A3. One or Both Respondents Die**

Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 034567 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

One respondent dies before the next wave. At the next wave, both respondents retain their HHID of 034567. The living respondent retains her SUBHH of 0; the deceased respondent is assigned a SUBHH of 3. (If both respondents die, one would be assigned a SUBHH of 3 and the other would be assigned a SUBHH of 4.) Each original respondent retains his and her PN of 010 and 020, respectively.

### **Time 1**

Household records

HHID=034567 ASUBHH=0

Respondent records

HHID=034567 PN=010 ASUBHH=0

HHID=034567 PN=020 ASUBHH=0

### **Time 2**

Household records

HHID=034567 CSUBHH=0

HHID=034567 CSUBHH=3 (in exit interview)

Respondent records

HHID=034567 PN=010 CSUBHH=3 (in exit interview)

HHID=034567 PN=020 CSUBHH=0

## **A4. Single Respondent Marries**

A respondent who has never been married is in the first cross-section. The respondent is assigned a HHID of 045678 and a SUBHH of 0 and a PN of 010.

At the time of the second cross-section, the respondent has married. Both the respondent and her new spouse are assigned a HHID of 045678 and a SUBHH of 0 because the household was not divided. The original respondent retains her PN of 010. Her new spouse is assigned PN of 011.

**Time 1**

Household records

HHID=045678 ASUBHH=0

Respondent records

HHID=045678 PN=010 ASUBHH=0

**Time 2**

Household records

HHID=045678 CSUBHH=0

Respondent records

HHID=045678 PN=010 CSUBHH=0

HHID=045678 PN=011 CSUBHH=0

**A5. Couple Divorces, One Respondent Remarries and Divorces**

Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 056789 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

By the time of the second cross-section, the couple has divorced and he has remarried. Both original respondents retain the HHID of 056789, but she is assigned a SUBHH of 1 and he is assigned a SUBHH of 2. His new spouse is also assigned the HHID of 056789 and the SUBHH of 2. Each original respondent retains his and her PN of 010 and 020, respectively. His new spouse is assigned PN of 011.

By the time of the third cross-section, that new couple has gotten divorced. All respondents retain the HHID of 056789. The original sample member ex-wife has the SUBHH of 1. The original sample member ex-husband has a SUBHH of 2, and the non-original sample member, his second ex-wife, is assigned the SUBHH of 5. Each original respondent retains his and her PN of 010 and 020, respectively. His second ex-wife retains her PN of 011.

**Time 1**

Household records

HHID=056789 ASUBHH=0

Respondent records

HHID=056789 PN=010 ASUBHH=0

HHID=056789 PN=020 ASUBHH=0

**Time 2**

Household records

HHID=056789 CSUBHH=1

HHID=056789 CSUBHH=2

Respondent records

HHID=056789 PN=010 CSUBHH=2

HHID=056789 PN=011 CSUBHH=2

HHID=056789 PN=020 CSUBHH=1

**Time 3**

Household records

HHID=056789 FSUBHH=1

HHID=056789 FSUBHH=2

HHID=056789 FSUBHH=5

Respondent records

HHID=056789 PN=010 FSUBHH=2

HHID=056789 PN=011 FSUBHH=5

HHID=056789 PN=020 FSUBHH=1

**A6. Couple Divorces and Marries Again**

Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 067890 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

By the time of the second cross-section, the couple has divorced. Both respondents retain the HHID of 067890, but one is assigned a SUBHH of 1 and the other is assigned a SUBHH of 2. Each original respondent retains his and her PN of 010 and 020, respectively.

By the time of the third cross-section, the respondents have remarried each other. Both are assigned the HHID of 067890 and the SUBHH of 7. Each original respondent retains his and her PN of 010 and 020, respectively.

**Time 1**

Household records

HHID=067890 ASUBHH=0

Respondent records

HHID=067890 PN=010 ASUBHH=0

HHID=067890 PN=020 ASUBHH=0

**Time 2**

Household records

HHID=067890 CSUBHH=1

HHID=067890 CSUBHH=2

Respondent records

HHID=067890 PN=010 CSUBHH=1

HHID=067890 PN=020 CSUBHH=2

**Time 3**

Household records

HHID=067890 FSUBHH=7

Respondent records

HHID=067890 PN=010 FSUBHH=7

HHID=067890 PN=020 FSUBHH=7

**A7. Married Couple with Children and Siblings**

At the time of the first cross-section, sample household with a HHID of 078901 contains two respondents assigned PNs of 010 and 020, respectively. Associated with the household are three children with OPNs of 101, 102, and 103, and two siblings with OPNs of 051 and 052. All seven persons will keep those same PNs and OPNs across time. A friend who lives with the respondents is assigned an OPN of 080. The friend will keep her OPN of 080 across time only if she is a household member at each wave.

**Time 1**

Household records

HHID=078901 ASUBHH=0

Respondent records

HHID=078901 PN=010 ASUBHH=0

HHID=078901 PN=020 ASUBHH=0

Household member/child records

HHID=078901 ASUBHH=0 OPN=101 (child)

HHID=078901 ASUBHH=0 OPN=102 (child)



HHID=078901 ASUBHH=0 OPN=103 (child)  
HHID=078901 ASUBHH=0 OPN=051 (sibling)  
HHID=078901 ASUBHH=0 OPN=052 (sibling)  
HHID=078901 ASUBHH=0 OPN=080 (friend)

#### **A8. Couple with Children and Siblings Divorces**

At the time of the first cross-section, sample household with a HHID of 089012 contains two respondents assigned PNs of 010 and 020, respectively. Associated with the household are two children with OPNs of 101, and 102, and three siblings, her two brothers with OPNs of 051 and 052 and his sister with an OPN of 061. A friend who lives with the respondents is assigned an OPN of 080.

By the time of the second cross-section, the couple has divorced. Both respondents retain the HHID of 089012, but he is assigned a SUBHH of 2 and she is assigned a SUBHH of 1. Each original respondent retains his and her PN of 010 and 020, respectively.

The two children appear both in their father's SUBHH 2 and also in their mother's SUBHH 1 with their respective OPNs, 101, and 102. The three siblings appear in the SUBHH of their respective siblings and maintain their respective OPNs. The ex-wife's brothers appear as part of her SUBHH 1 with their OPNs of 051 and 052, respectively. The ex-husband's sister appears as part of his SUBHH 2 with her OPN of 061. The friend has moved out and does not appear in either household.

#### **Time 1**

Household records

HHID=089012 ASUBHH=0

Respondent records

HHID=089012 PN=010 ASUBHH=0

HHID=089012 PN=020 ASUBHH=0

Household member/child records

HHID=089012 ASUBHH=0 OPN=101 (child)

HHID=089012 ASUBHH=0 OPN=102 (child)

HHID=089012 ASUBHH=0 OPN=051 (her brother)

HHID=089012 ASUBHH=0 OPN=052 (her brother)

HHID=089012 ASUBHH=0 OPN=061 (his sister)

HHID=089012 ASUBHH=0 OPN=080 (friend)

#### **Time 2**

Household records

HHID=089012 CSUBHH=1

HHID=089012 CSUBHH=2

Respondent records

HHID=089012 PN=010 CSUBHH=2

HHID=089012 PN=020 CSUBHH=1

Household member/child records

HHID=089012 CSUBHH=1 OPN=101 (child)

HHID=089012 CSUBHH=1 OPN=102 (child)

HHID=089012 CSUBHH=1 OPN=051 (her brother)

HHID=089012 CSUBHH=1 OPN=052 (her brother)

HHID=089012 CSUBHH=2 OPN=101 (child)

HHID=089012 CSUBHH=2 OPN=102 (child)

HHID=089012 CSUBHH=2 OPN=061 (his sister)

**A9. Couple Divorces, One Respondent Remarries, Both Split-off Households Have New Members**

Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 090123 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

By the time of the second cross-section, the couple has divorced. She has moved in with her mother. He has married a woman with two children. At the second cross-section, both original respondents retain the HHID of 090123, but he is assigned a SUBHH of 1 and she is assigned a SUBHH of 2. Each original respondent retains his and her PN of 010 and 020, respectively. His new spouse and new stepchildren are assigned the HHID of 090123 and the SUBHH of 1. His new spouse is assigned a PN of 011. His new stepchildren are assigned OPNs of 151 and 152. Her mother is assigned the HHID of 090123 and the SUBHH of 2 and an OPN of 151.

**Time 1**

Household records

HHID=090123 ASUBHH=0

Respondent records

HHID=090123 PN=010 ASUBHH=0

HHID=090123 PN=020 ASUBHH=0

**Time 2**

Household records

HHID=090123 CSUBHH=1

HHID=090123 CSUBHH=2

Respondent records

HHID=090123 PN=010 CSUBHH=1

HHID=090123 PN=011 CSUBHH=1 (new wife)

HHID=090123 PN=020 CSUBHH=2

Household member/child records

HHID=090123 CSUBHH=1 OPN=151 (his stepchild)

HHID=090123 CSUBHH=1 OPN=152 (his stepchild)

HHID=090123 CSUBHH=2 OPN=151 (her mom)

**B. Master Codes**

Included in this file are the "Master Codes" for HRS. Other areas of the codebook often refer to these lists, as they are too long to replicate at each variable that uses the codes.

The Master Codes in order of appearance are:

B1. Health Conditions - Categorical

B2. Occupation Codes

B3. State and Country Codes

**B1. Health Conditions - Categorical**

NOTE: If necessary, use individual "Other" categories if system or type of condition is clear; otherwise, code 997.

**Cancers and tumors; skin conditions**

101. Cancer--any site or type; leukemia; Hodgkin's disease; melanomas; non-Hodgkin's lymphoma; tumors if specified as malignant; lymphoma; metastasis angiosarcoma; carcinoma; myeloma/multiple myeloma; myelodysplastic syndrome

102. Tumors, cysts or growths (except 101); polyps; osteomyelitis; pre-cancer; neuroma; benign tumors; mole removal; warts; subdural hygroma

103. Skin conditions--any mention except cancer (101) or tumor (102); dermatitis; eczema; rashes; Paget's disease; skin ulcers; bedsores; bullous pemphigoid; hair loss; pemphigus; seborrheic keratosis; rosacea; alopecia; psoriasis; burns (also use code 194 if available)

**Musculoskeletal system and connective tissue**

111. Arthritis; rheumatism; bursitis; ankylosing spondylitis; Reiter's syndrome; rheumatica; osteoarthritis
112. Back/neck/spine problems: chronic stiffness, deformity or pain; disc problems; scoliosis; spina bifida; bad back; spinal stenosis; back/neck injuries (also use code 194 if available); back/neck sprain (also use code 194 if available)
113. Stiffness, deformity, numbness or chronic pain in foot, leg, arm or hand, shoulder or rotator cuff; bad knee/hip problems; hip/knee replacement; plantar fasciitis; drop foot; leg cramps; tennis elbow; Dupuytren's contracture; sprain of limb (also use code 194 if available)
114. Missing legs, feet, arms, hands, or fingers (from amputation or congenital deformity)
115. Paralysis--any mention (including from polio)
116. Hernias; hiatal hernia; rectocele; cystocele
117. Muscular dystrophy; mitochondrial myopathy
118. Fibromyalgia; fibro myositis; fibrositis; myofascial pain syndrome
119. Other musculoskeletal or connective tissue problems; lupus; osteoporosis; pinched nerve (location not specified); sciatica/sciatic nerve problem; carpal tunnel syndrome; costochondritis; polymyositis; scleroderma; chromosome leak into the muscles; bone spurs (location not specified); cellulitis; tendonitis (location not specified); temporomandibular joint syndrome (TMJ); trigeminal neuralgia; CREST syndrome/limited scleroderma; polymyalgia/polymyalgia rheumatica; avascular necrosis/osteonecrosis, neural muscular myositis, bone disease, myalgia, myositis, osteopenia; adhesions (location not specified); neuritis; skull bone injuries (also use code 194 if available); vascular necrosis; broken or damaged bones (location not specified) from injuries/accidents (also use code 194 if available); pulled muscle (location not specified -also use code 194 if available); strain (location not specified - also use code 194 if available); tendon damage (location not specified - also use code 194 if available); sprain (location not specified - also use code 194 if available); post-polio syndrome (without mention of paralysis); loss of calcium

**Heart, circulatory and blood conditions**

121. Heart problems: heart attack (coronary) or failure; arteriosclerosis; heart aneurysms; heart deformities/congenital heart deformities; angina; bad heart; congestive heart disease; cardiomyopathy; atrial fibrillation; myocardial infarction (MI); multiple infarction; myocardinitis, endocarditis; myocardial ischemia; heart murmurs; heart valve blockage; heart valve prolapse; heart valve replacement; arterial blockage; hardening of arteries; heart bypass surgery; mitral valve prolapse; myocardial ischemia; rheumatic heart disease
122. High blood pressure / hypertension (HTN); uncontrollable blood pressure; blood pressure problems, not specified high or low
123. Stroke; cerebral hemorrhage or accident; hematoma (if related to brain); transient ischemic attack (TIA);
124. Blood disorders: blood disease, anemia; aplastic anemia; hypoplastic anemia; hemophilia; polycythemia vera; bad blood; toxemia; cold agglutinin disease; triglycerides or high triglycerides; toxoplasmosis; blood

- transfusion; sickle cell trait; bone marrow failure; factor VIII/factorVIII deficiency/elevated factor VIII ; thrombocytopenia; hemochromatosis;
129. Other circulatory problems; phlebitis, clots/blood clots, embolisms; varicose veins; hemorrhoids; low blood pressure; giant cell arteritis; hematoma (if not related to brain or location not specified); gangrene; vascular disease; pulmonary thrombosis; pulmonary embolism; Raynaud's disease; APLS Hughes syndrome; aneurysm (when not in heart or location not specified); elasticity of arteries; calcification of limbs; lymphedema; claudication, pulmonary hypertension; rheumatic fever; occult cerebral vascular malformation; bleeding (location not specified); blockage in lung; Rendu-Osler-Weber disease/syndrome

#### **Respiratory system conditions**

131. Allergies; hay fever; sinusitis; sinus problems; sinus headaches; tonsillitis; celiac disease/sprue (gluten intolerance); hives
132. Asthma
133. Bronchitis; pneumonia; acute upper respiratory problems; Legionnaire's disease; fungus in chest; respiratory pulmonary disease
134. Emphysema; chronic obstructive pulmonary disease (COPD); smoking related lung problems
139. Other respiratory/breathing problems; tuberculosis; sarcoidosis; ventilatory insufficiency; pulmonary idiopathic fibrosis; respiratory failure, NFS; asbestos in lungs; black lung; pleurisy

#### **Endocrine, metabolic and nutritional conditions**

141. Diabetes; pre-diabetic; high blood sugar
142. Thyroid trouble; goiter; hyperthyroidism; Graves's disease; Hashimoto's disease
143. Cystic fibrosis
144. Nutritional problems; weight problems; eating disorders; high cholesterol; hypercholesterolemia; obesity; iron deficiency; overweight; vitamin deficiency
145. Sugar problems, NFS; erratic blood sugar
149. Other endocrine/metabolic problems; pancreatitis; pituitary problems; gland problems; Addison's disease; gout, nephrotic syndrome; primary adrenal insufficient; parathyroid problems; endocrinology syndrome; amyloidosis; haemochromatosis; hypoglycemia; low blood sugar; loss of calcium; alpha-1 antitrypsin deficiency; acromegaly; hormone problems; hyperpituitarism; hypoglycemia

#### **Digestive system (stomach, liver, gallbladder, kidney, bladder)**

151. Stomach and intestinal conditions: acid reflux, reflux disease, heartburn, stomach reflux, GERD, Barrett's esophagus, ulcers (stomach, peptic, duodenal or not further specified); colitis; ulcerative colitis; gastritis; diverticulosis; diverticulitis; appendicitis; Crohn's disease; intestinal adhesions; abdominal adhesions; colostomy; silicate's disease; stomach pains, ileostomy, dumping syndrome; gastroenteritis, Irritable Bowel Syndrome; diarrhea; bowel incontinence; appendectomy; enteritis; ileitis; peritonitis; stomach removal
152. Liver conditions: cirrhosis; hepatitis; benign hepatic hypertrophy; encephalopathy (caused by liver problems or cause not specified); jaundice
153. Kidney conditions: kidney stones; kidney failure (including dialysis); nephritis
154. Gallbladder conditions; blockage of bile ducts; gallstones; gallbladder removal
155. Bladder conditions (except 156); urinary infections; interstitial cystitis, urosepsis

- 156. Urinary incontinence; urinary loss/leakage; problems with bladder control
- 157. Spleen conditions; enlarged spleen
- 159. Other digestive system problems; internal bleeding; hemorrhage; esophagus torn, ruptured or bleeding; swallowing difficulty; feeding tube

#### **Neurological and sensory conditions**

- 161. Blindness or vision problems: glaucoma; cataracts; detached/torn retina; macular degeneration; uveitis; ocular myasthenia gravis; conjunctivitis; eye conditions, NFS
- 162. Deafness; hearing loss or other ear conditions; tinnitus; vestibular disorder; Meniere's disease
- 163. Multiple sclerosis; cerebral palsy; epilepsy; Parkinson's; amyotrophic lateral sclerosis (ALS) or Lou Gehrig's disease); seizures; neuropathy; peripheral neuropathy
- 164. Speech conditions--any mention; congenital speech defects; stuttering; laryngectomy; speech impediment
- 165. Mental retardation; mental impairment; learning disabilities; Down syndrome; dyslexia
- 169. Other neurological/sensory problems; headaches; migraines; dizziness; blackouts; brain damage, NFS (also use code 194 if available); meningitis; arachnoiditis; Bell's palsy; Charcot-Marie-Tooth disease; Guillain-Barre syndrome; medial nerve palsy; myasthenia gravis/myasthenia (non-ocular); myokymia; reflex sympathetic dystrophy (RSD); restless legs syndrome (RLS); Sjogren's syndrome; spasmodic torticollis; balance problems; closed head injury; coma; paralyzed diaphragm; facial neuralgia; hydrocephalus; inclusive body myositis; spinal cerebella ataxia; benign/familial tremors, vertigo; upper motor neuron/motoneuron problems, progressive supranuclear palsy (PSP); thoracic outlet syndrome; dysautonomia; shaky hands; spinal cord damage from injuries/accident (also use code 194 if available)

#### **Reproductive system and prostate conditions**

- 171. Pregnancy and childbirth problems; miscarriage; hemorrhaging or complications from birth of child; episiotomy; Rh factor
- 172. Infertility; sterilization; vasectomy; tubal ligation
- 173. Prostate conditions; PSA/high PSA
- 179. Other problems of reproductive system; hysterectomy; ovarian problems; PMS; menopause; dysmenorrhea; endometriosis; painful menstrual periods; female problems; gynecological problems, NFS; removal of reproductive organs (excluding cancer and tumors)

#### **Emotional and psychological conditions**

- 181. Alcoholism
- 182. Drug abuse/addiction/dependence
- 183. Other severe psychological conditions: (chronic) depression; schizophrenia; mania; paranoia; autism; psychosis; agoraphobia; bipolar disorder (manic-depression); post-traumatic stress disorder (PTSD)
- 189. Other emotional and psychological problems; mental problems, NFS; nerves; nervous breakdown; stress; stress related problems; night wandering; panic attacks; anxiety; behavioral problems; insomnia; attention deficit disorder (ADD)

#### **Miscellaneous**

- 191. Alzheimer's disease; senility, dementia; multi-infarct dementia; memory loss; mixed cognitive disease
- 192. Dental and gum conditions--any mention
- 193. Acute infectious diseases; flu; colds; fever; mumps; Dengue fever; Lyme disease; infection, staph infection; methicillin-resistant staphylococcus

- aureus (MRSA); Epstein-Barr virus; mononucleosis; influenza; measles; rubella; strep throat; virus, NFS; septic shock; toxic shock; sepsis; shingles; polio (without mention of paralysis)
- 194. Injuries and traumas: broken bones; fractures; pulled muscles; strains; tendon damage; burns, lacerations; concussion; side effects/conditions due to surgery, side effects due to medication; graft-versus host disease LOW PRIORITY--code resulting chronic or ongoing conditions if possible
- 195. Sleep disorders; sleep apnea; narcolepsy; cataplexy
- 196. Immune system disorders; human immunodeficiency virus (HIV) positive; acquired immunodeficiency syndrome (AIDS); AIDS related complex (ARC)

**Cause of death**

- 601. Suicide
- 602. Murder
- 603. Killed in war/combat
- 604. Motor vehicle accident - incl. as pedestrian
- 605. Industrial/work related accident
- 606. Sporting accident
- 607. Other accidental death; accidental death - NA type of accident
- 608. Still born; died at birth or infancy - NFS

**Why Admitted**

- 701. No other care arrangements available
- 702. Deteriorating health; health condition not specified
- 703. To recover/rehab; for injury/surgery

**Other symptoms**

- 595. Old age; everything wore out; bedridden; infirmity; natural causes; failure to thrive in older adults
- 596. Lack of energy/strength; (chronic) fatigue, NFS; don't have get up and go
- 597. Edema; retaining water; retaining fluids; swelling (location not specified)
- 996. None, no health condition(s) mentioned
- 997. Other health condition
- 998. DK (Don't Know); NA (Not Ascertained)
- 999. RF (Refused)

**B2. Occupation Codes**

Equivalent numeric codes follow the alphabetic codes. Either code may be used, depending on the processing method. The abbreviation "pt" means "part" and "n.e.c." means "not elsewhere classified."

**MGR Management Occupations**

- 001. Chief Executives
- 002. General and Operations Managers
- 003. Legislators
- 004. Advertising and Promotions Managers
- 005. Marketing and Sales Managers
- 006. Public Relations Managers
- 010. Administrative Services Managers
- 011. Computer and Information Systems Managers
- 012. Financial Managers
- 013. Human Resources Managers
- 014. Industrial Production Managers
- 015. Purchasing Managers

- 016. Transportation, Storage, and Distribution Managers
- 020. Farm, Ranch, and Other Agricultural Managers
- 021. Farmers and Ranchers
- 022. Construction Managers
- 023. Education Administrators
- 030. Engineering Managers
- 031. Food Service Managers
- 032. Funeral Directors
- 033. Gaming Managers
- 034. Lodging Managers
- 035. Medical and Health Services Managers
- 036. Natural Science Managers
- 040. Postmasters and Mail Superintendents
- 041. Property, Real Estate, and Community Association Managers
- 042. Social and Community Service Managers
- 043. Managers, All Other

### **BUS Business Operations Specialists**

- 050. Agents and Business Managers of Artists, Performers, and Athletes
- 051. Purchasing Agents and Buyers, Farm Products
- 052. Wholesale and Retail Buyers, Except Farm Products
- 053. Purchasing Agents, Except Wholesale, Retail, and Farm Products
- 054. Claims Adjusters, Appraisers, Examiners, and Investigators
- 056. Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation
- 060. Cost Estimators
- 062. Human Resources, Training, and Labor Relations Specialists
- 070. Logisticians
- 071. Management Analysts
- 072. Meeting and Convention Planners
- 073. Other Business Operations Specialists

### **FIN Financial Specialists**

- 080. Accountants and Auditors
- 081. Appraisers and Assessors of Real Estate
- 082. Budget Analysts
- 083. Credit Analysts
- 084. Financial Analysts
- 085. Personal Financial Advisors
- 086. Insurance Underwriters
- 090. Financial Examiners
- 091. Loan Counselors and Officers
- 093. Tax Examiners, Collectors, and Revenue Agents
- 094. Tax Preparers
- 095. Financial Specialists, All Other

### **CMM Computer and Mathematical Occupations**

- 100. Computer Scientists and Systems Analysts
- 101. Computer Programmers
- 102. Computer Software Engineers
- 104. Computer Support Specialists
- 106. Database Administrators
- 110. Network and Computer Systems Administrators
- 111. Network Systems and Data Communications Analysts
- 120. Actuaries
- 121. Mathematicians

- 122. Operations Research Analysts
- 123. Statisticians
- 124. Miscellaneous Mathematical Scientists and Technicians

**ENG Architecture and Engineering Occupations**

- 130. Architects, Except Naval
- 131. Surveyors, Cartographers, and Photogrammetrists
- 132. Aerospace Engineers
- 133. Agricultural Engineers
- 134. Biomedical Engineers
- 135. Chemical Engineers
- 136. Civil Engineers
- 140. Computer Hardware Engineers
- 141. Electrical and Electronics Engineers
- 142. Environmental Engineers
- 143. Industrial Engineers, including Health and Safety
- 144. Marine Engineers and Naval Architects
- 145. Materials Engineers
- 146. Mechanical Engineers
- 150. Mining and Geological Engineers, Including Mining Safety Engineers
- 151. Nuclear Engineers
- 152. Petroleum Engineers
- 153. Engineers, All Other
- 154. Drafters
- 155. Engineering Technicians, Except Drafters
- 156. Surveying and Mapping Technicians

**SCI Life, Physical, and Social Science Occupations**

- 160. Agricultural and Food Scientists
- 161. Biological Scientists
- 164. Conservation Scientists and Foresters
- 165. Medical Scientists
- 170. Astronomers and Physicists
- 171. Atmospheric and Space Scientists
- 172. Chemists and Materials Scientists
- 174. Environmental Scientists and Geoscientists
- 176. Physical Scientists, All Other
- 180. Economists
- 181. Market and Survey Researchers
- 182. Psychologists
- 183. Sociologists
- 184. Urban and Regional Planners
- 186. Miscellaneous Social Scientists and Related Workers
- 190. Agricultural and Food Science Technicians
- 191. Biological Technicians
- 192. Chemical Technicians
- 193. Geological and Petroleum Technicians
- 194. Nuclear Technicians
- 196. Other Life, Physical, and Social Science Technicians

**CMS Community and Social Services Occupations**

- 200. Counselors
- 201. Social Workers
- 202. Miscellaneous Community and Social Service Specialists
- 204. Clergy
- 205. Directors, Religious Activities and Education



206. Religious Workers, All Other

**LGL Legal Occupations**

210. Lawyers  
211. Judges, Magistrates, and Other Judicial Workers  
214. Paralegals and Legal Assistants  
215. Miscellaneous Legal Support Workers

**EDU Education, Training, and Library Occupations**

220. Postsecondary Teachers  
230. Preschool and Kindergarten Teachers  
231. Elementary and Middle School Teachers  
232. Secondary School Teachers  
233. Special Education Teachers  
234. Other Teachers and Instructors  
240. Archivists, Curators, and Museum Technicians  
243. Librarians  
244. Library Technicians  
254. Teacher Assistants  
255. Other Education, Training, and Library Workers

**ENT Arts, Design, Entertainment, Sports, and Media Occupations**

260. Artists and Related Workers  
263. Designers  
270. Actors  
271. Producers and Directors  
272. Athletes, Coaches, Umpires, and Related Workers  
274. Dancers and Choreographers  
275. Musicians, Singers, and Related Workers  
276. Entertainers and Performers, Sports and Related Workers, All Other  
280. Announcers  
281. News Analysts, Reporters and Correspondents  
282. Public Relations Specialists  
283. Editors  
284. Technical Writers  
285. Writers and Authors  
286. Miscellaneous Media and Communication Workers  
290. Broadcast and Sound Engineering Technicians and Radio Operators  
291. Photographers  
292. Television, Video, and Motion Picture Camera Operators and Editors  
296. Media and Communication Equipment Workers, All Other

**MED Healthcare Practitioners and Technical Occupations**

300. Chiropractors  
301. Dentists  
303. Dietitians and Nutritionists  
304. Optometrists  
305. Pharmacists  
306. Physicians and Surgeons  
311. Physician Assistants  
312. Podiatrists  
313. Registered Nurses  
314. Audiologists  
315. Occupational Therapists  
316. Physical Therapists  
320. Radiation Therapists

- 321. Recreational Therapists
- 322. Respiratory Therapists
- 323. Speech-Language Pathologists
- 324. Therapists, All Other
- 325. Veterinarians
- 326. Health Diagnosing and Treating Practitioners, All Other
- 330. Clinical Laboratory Technologists and Technicians
- 331. Dental Hygienists
- 332. Diagnostic Related Technologists and Technicians
- 340. Emergency Medical Technicians and Paramedics
- 341. Health Diagnosing and Treating Practitioner Support Technicians
- 350. Licensed Practical and Licensed Vocational Nurses
- 351. Medical Records and Health Information Technicians
- 352. Opticians, Dispensing
- 353. Miscellaneous Health Technologists and Technicians
- 354. Other Healthcare Practitioners and Technical Occupations

#### **HLS Healthcare Support Occupations**

- 360. Nursing, Psychiatric, and Home Health Aides
- 361. Occupational Therapist Assistants and Aides
- 362. Physical Therapist Assistants and Aides
- 363. Massage Therapists
- 364. Dental Assistants
- 365. Medical Assistants and Other Healthcare Support Occupations

#### **PRT Protective Service Occupations**

- 370. First-Line Supervisors/Managers of Correctional Officers
- 371. First-Line Supervisors/Managers of Police and Detectives
- 372. First-Line Supervisors/Managers of Fire Fighting and Prevention Workers
- 373. Supervisors, Protective Service Workers, All Other
- 374. Fire Fighters
- 375. Fire Inspectors
- 380. Bailiffs, Correctional Officers, and Jailers
- 382. Detectives and Criminal Investigators
- 383. Fish and Game Wardens
- 384. Parking Enforcement Workers
- 385. Police and Sheriff's Patrol Officers
- 386. Transit and Railroad Police
- 390. Animal Control Workers
- 391. Private Detectives and Investigators
- 392. Security Guards and Gaming Surveillance Officers
- 394. Crossing Guards
- 395. Lifeguards and Other Protective Service Workers

#### **EAT Food Preparation and Serving Occupations**

- 400. Chefs and Head Cooks
- 401. First-Line Supervisors/Managers of Food Preparation and Serving Workers
- 402. Cooks
- 403. Food Preparation Workers
- 404. Bartenders
- 405. Combined Food Preparation and Serving Workers, Including Fast Food
- 406. Counter Attendant, Cafeteria, Food Concession, and Coffee Shop
- 411. Waiters and Waitresses
- 412. Food Servers, Non-restaurant
- 413. Dining Room and Cafeteria Attendants and Bartender Helpers
- 414. Dishwashers

- 415. Host and Hostesses, Restaurant, Lounge, and Coffee Shop
- 416. Food Preparation and Serving Related Workers, All Other

**CLN Building and Grounds Cleaning and Maintenance Occupations**

- 420. First-Line Supervisors/Managers of Housekeeping and Janitorial Workers
- 421. First-Line Supervisors/Managers of Landscaping, Lawn Service, and Grounds Keeping Workers
- 422. Janitors and Building Cleaners
- 423. Maids and Housekeeping Cleaners
- 424. Pest Control Workers
- 425. Grounds Maintenance Workers

**PRS Personal Care and Service Occupations**

- 430. First-Line Supervisors/Managers of Gaming Workers
- 432. First-Line Supervisors/Managers of Personal Service Workers
- 434. Animal Trainers
- 435. Nonfarm Animal Caretakers
- 440. Gaming Services Workers
- 441. Motion Picture Projectionists
- 442. Ushers, Lobby Attendants, and Ticket Takers
- 443. Miscellaneous Entertainment Attendants and Related Workers
- 446. Funeral Service Workers
- 450. Barbers
- 451. Hairdressers, Hairstylists, and Cosmetologists
- 452. Miscellaneous Personal Appearance Workers
- 453. Baggage Porters, Bellhops, and Concierges
- 454. Tour and Travel Guides
- 455. Transportation Attendants
- 460. Child Care Workers
- 461. Personal and Home Care Aides
- 462. Recreation and Fitness Workers
- 464. Residential Advisors
- 465. Personal Care and Service Workers, All Other

**SAL Sales Occupations**

- 470. First-Line Supervisors/Managers of Retail Sales Workers
- 471. First-Line Supervisors/Managers of Non-Retail Sales
- 472. Cashiers
- 474. Counter and Rental Clerks
- 475. Parts Salespersons
- 476. Retail Salespersons
- 480. Advertising Sales Agents
- 481. Insurance Sales Agents
- 482. Securities, Commodities, and Financial Services Sales Agents
- 483. Travel Agents
- 484. Sales Representatives, Services, All Other
- 485. Sales Representatives, Wholesale and Manufacturing
- 490. Models, Demonstrators, and Product Promoters
- 492. Real Estate Brokers and Sales Agents
- 493. Sales Engineers
- 494. Telemarketers
- 495. Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
- 496. Sales and Related Workers, All Other

**OFF Office and Administrative Support Occupations**

- 500. First-Line Supervisors/Managers of Office and Administrative Support Workers
- 501. Switchboard Operators, Including Answering Service
- 502. Telephone Operators
- 503. Communications Equipment Operators, All Other
- 510. Bill and Account Collectors
- 511. Billing and Posting Clerks and Machine Operators
- 512. Bookkeeping, Accounting, and Auditing Clerks
- 513. Gaming Cage Workers
- 514. Payroll and Timekeeping Clerks
- 515. Procurement Clerks
- 516. Tellers
- 520. Brokerage Clerks
- 521. Correspondence Clerks
- 522. Court, Municipal, and License Clerks
- 523. Credit Authorizers, Checkers, and Clerks
- 524. Customer Service Representatives
- 525. Eligibility Interviewers, Government Programs
- 526. File Clerks
- 530. Hotel, Motel, and Resort Desk Clerks
- 531. Interviewers, Except Eligibility and Loan
- 532. Library Assistants, Clerical
- 533. Loan Interviewers and Clerks
- 534. New Account Clerks
- 535. Order Clerks
- 536. Human Resources Assistants, Except Payroll and Timekeeping
- 540. Receptionists and Information Clerks
- 541. Reservation and Transportation Ticket Agents and Travel Clerks
- 542. Information and Record Clerks, All Other
- 550. Cargo and Freight Agents
- 551. Couriers and Messengers
- 552. Dispatchers
- 553. Meter Readers, Utilities
- 554. Postal Service Clerks
- 555. Postal Service Mail Carriers
- 556. Postal Service Mail Sorters, Processors, and Processing Machine Operators
- 560. Production, Planning, and Expediting Clerks
- 561. Shipping, Receiving, and Traffic Clerks
- 562. Stock Clerks and Order Fillers
- 563. Weighers, Measurers, Checkers, and Samplers, Recordkeeping
- 570. Secretaries and Administrative Assistants
- 580. Computer Operators
- 581. Data Entry Keyers
- 582. Word Processors and Typists
- 583. Desktop Publishers
- 584. Insurance Claims and Policy Processing Clerks
- 585. Mail Clerks and Mail Machine Operators, Except Postal Service
- 586. Office Clerks, General
- 590. Office Machine Operators, Except Computer
- 591. Proofreaders and Copy Markers
- 592. Statistical Assistants
- 593. Office and Administrative Support Workers, All Other

**FFF Farming, Fishing, and Forestry Occupations**

- 600. First-Line Supervisors/Managers/Contractors of Farming, Fishing, and Forestry Workers
- 601. Agricultural Inspectors

- 602. Animal Breeders
- 604. Graders and Sorters, Agricultural Products
- 605. Other Agricultural Workers
- 610. Fishers and Related Fishing Workers
- 611. Hunters and Trappers
- 612. Forest and Conservation Workers
- 613. Logging Worker

### **CON Construction Trades**

- 620. First-Line Supervisors/Managers of Construction Trades and Extraction Workers
- 621. Boilermakers
- 622. Brickmasons, Blockmasons, and Stonemasons
- 623. Carpenters
- 624. Carpet, Floor, and Tile Installers and Finishers
- 625. Cement Masons, Concrete Finishers, and Terrazzo Workers
- 626. Construction Laborers
- 630. Paving, Surfacing, and Tamping Equipment Operators
- 631. Pile-Driver Operators
- 632. Operating Engineers and Other Construction Equipment Operators
- 633. Drywall Installers, Ceiling Tile Installers, and Tapers
- 635. Electricians
- 636. Glaziers
- 640. Insulation Workers
- 642. Painters, Construction and Maintenance
- 643. Paperhangers
- 644. Pipelayers, Plumbers, Pipefitters, and Steamfitters
- 646. Plasterers and Stucco Masons
- 650. Reinforcing Iron and Rebar Workers
- 651. Roofers
- 652. Sheet Metal Workers
- 653. Structural Iron and Steel Workers
- 660. Helpers, Construction Trades
- 666. Construction and Building Inspectors
- 670. Elevator Installers and Repairers
- 671. Fence Erectors
- 672. Hazardous Materials Removal Workers
- 673. Highway Maintenance Workers
- 674. Rail-Track Laying and Maintenance Equipment Operators
- 675. Septic Tank Servicers and Sewer Pipe Cleaners
- 676. Miscellaneous Construction and Related Workers

### **EXT Extraction Workers**

- 680. Derrick, Rotary Drill, and Service Unit Operators, Oil, Gas, and Mining
- 682. Earth Drillers, Except Oil and Gas
- 683. Explosives Workers, Ordnance Handling Experts, and Blasters
- 684. Mining Machine Operators
- 691. Roof Bolters, Mining
- 692. Roustabouts, Oil and Gas
- 693. Helpers--Extraction Workers
- 694. Other Extraction Workers

### **RPR Installation, Maintenance, and Repair Workers**

- 700. First-Line Supervisors/Managers of Mechanics, Installers, and Repairers
- 701. Computer, Automated Teller, and Office Machine Repairers
- 702. Radio and Telecommunications Equipment Installers and Repairers

- 703. Avionics Technicians
- 704. Electric Motor, Power Tool, and Related Repairers
- 705. Electrical and Electronics Installers and Repairers, Transportation Equipment
- 710. Electrical and Electronics Repairers, Industrial and Utility
- 711. Electronic Equipment Installers and Repairers, Motor Vehicles
- 712. Electronic Home Entertainment Equipment Installers and Repairers
- 713. Security and Fire Alarm Systems Installers
- 714. Aircraft Mechanics and Service Technicians
- 715. Automotive Body and Related Repairers
- 716. Automotive Glass Installers and Repairers
- 720. Automotive Service Technicians and Mechanics
- 721. Bus and Truck Mechanics and Diesel Engine Specialists
- 722. Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics
- 724. Small Engine Mechanics
- 726. Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
- 730. Control and Valve Installers and Repairers
- 731. Heating, Air Conditioning, and Refrigeration Mechanics and Installers
- 732. Home Appliance Repairers
- 733. Industrial and Refractory Machinery Mechanics
- 734. Maintenance and Repair Workers, General
- 735. Maintenance Workers, Machinery
- 736. Millwrights
- 741. Electrical Power-Line Installers and Repairers
- 742. Telecommunications Line Installers and Repairers
- 743. Precision Instrument and Equipment Repairers
- 751. Coin, Vending, and Amusement Machine Servicers and Repairers
- 752. Commercial Divers
- 754. Locksmiths and Safe Repairers
- 755. Manufactured Building and Mobile Home Installers
- 756. Riggers
- 760. Signal and Track Switch Repairers
- 761. Helpers--Installation, Maintenance, and Repair Workers
- 762. Other Installation, Maintenance, and Repair Workers

### **PRD Production Occupations**

- 770. First-Line Supervisors/Managers of Production and Operating Workers
- 771. Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
- 772. Electrical, Electronics, and Electromechanical Assemblers
- 773. Engine and Other Machine Assemblers
- 774. Structural Metal Fabricators and Fitters
- 775. Miscellaneous Assemblers and Fabricators
- 780. Bakers
- 781. Butchers and Other Meat, Poultry, and Fish Processing Workers
- 783. Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
- 784. Food Batchmakers
- 785. Food Cooking Machine Operators and Tenders
- 790. Computer Control Programmers and Operators
- 792. Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
- 793. Forging Machine Setters, Operators, and Tenders, Metal and Plastic
- 794. Rolling Machine Setters, Operators, and Tenders, metal and Plastic
- 795. Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
- 796. Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic

800. Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
801. Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
802. Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
803. Machinists
804. Metal Furnace and Kiln Operators and Tenders
806. Model Makers and Patternmakers, Metal and Plastic
810. Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic
812. Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
813. Tool and Die Makers
814. Welding, Soldering, and Brazing Workers
815. Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
816. Lay-Out Workers, Metal and Plastic
820. Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
821. Tool Grinders, Filers, and Sharpeners
822. Metalworkers and Plastic Workers, All Other
823. Bookbinders and Bindery Workers
824. Job Printers
825. Prepress Technicians and Workers
826. Printing Machine Operators
830. Laundry and Dry-Cleaning Workers
831. Pressers, Textile, Garment, and Related Materials
832. Sewing Machine Operators
833. Shoe and Leather Workers and Repairers
834. Shoe Machine Operators and Tenders
835. Tailors, Dressmakers, and Sewers
836. Textile Bleaching and Dyeing Machine Operators and Tenders
840. Textile Cutting Machine Setters, Operators, and Tenders
841. Textile Knitting and Weaving Machine Setters, Operators, and Tenders
842. Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
843. Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
844. Fabric and Apparel Patternmakers
845. Upholsterers
846. Textile, Apparel, and Furnishings Workers, All Other
850. Cabinetmakers and Bench Carpenters
851. Furniture Finishers
852. Model Makers and Patternmakers, Wood
853. Sawing Machine Setters, Operators, and Tenders, Wood
854. Woodworking Machine Setters, Operators, and Tenders, Except Sawing
855. Woodworkers, All Other
860. Power Plant Operators, Distributors, and Dispatchers
861. Stationary Engineers and Boiler Operators
862. Water and Liquid Waste Treatment Plant and System Operators
863. Miscellaneous Plant and System Operators
864. Chemical Processing Machine Setters, Operators, and Tenders
865. Crushing, Grinding, Polishing, Mixing, and Blending Workers
871. Cutting Workers
872. Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
873. Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
874. Inspectors, Testers, Sorters, Samplers, and Weighers

- 875. Jewelers and Precious Stone and Metal Workers
- 876. Medical, Dental, and Ophthalmic Laboratory Technicians
- 880. Packaging and Filling Machine Operators and Tenders
- 881. Painting Workers
- 883. Photographic Process Workers and Processing Machine Operators
- 884. Semiconductor Processors
- 885. Cementing and Gluing Machine Operators and Tenders
- 886. Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
- 890. Cooling and Freezing Equipment Operators and Tenders
- 891. Etchers and Engravers
- 892. Molders, Shapers, and Casters, Except Metal and Plastic
- 893. Paper Goods Machine Setters, Operators, and Tenders
- 894. Tire Builders
- 895. Helpers--Production Workers
- 896. Production Workers, All Other

**TRN Transportation and Material Moving Occupations**

- 900. Supervisors, Transportation and Material Moving Workers
- 903. Aircraft Pilots and Flight Engineers
- 904. Air Traffic Controllers and Airfield Operations Specialists
- 911. Ambulance Drivers and Attendants, Except Emergency Medical Technicians
- 912. Bus Drivers
- 913. Driver/Sales Workers and Truck Drivers
- 914. Taxi Drivers and Chauffeurs
- 915. Motor Vehicle Operators, All Other
- 920. Locomotive Engineers and Operators
- 923. Railroad Brake, Signal, and Switch Operators
- 924. Railroad Conductors and Yardmasters
- 926. Subway, Streetcar, and Other Rail Transportation Workers
- 930. Sailors and Marine Oilers
- 931. Ship and Boat Captains and Operators
- 933. Ship Engineers
- 934. Bridge and Lock Tenders
- 935. Parking Lot Attendants
- 936. Service Station Attendants
- 941. Transportation Inspectors
- 942. Other Transportation Workers
- 950. Conveyor Operators and Tenders
- 951. Crane and Tower Operators
- 952. Dredge, Excavating, and Loading Machine Operators
- 956. Hoist and Winch Operators
- 960. Industrial Truck and Tractor Operators
- 961. Cleaners of Vehicles and Equipment
- 962. Laborers and Freight, Stock, and Material Movers, Hand
- 963. Machine Feeders and Off Bearers
- 964. Packers and Packagers, Hand
- 965. Pumping Station Operators
- 972. Refuse and Recyclable Material Collectors
- 973. Shuttle Car Operators
- 974. Tank Car, Truck, and Ship Loaders
- 975. Material Moving Workers, All Other

**MIL Military Specific Occupations**

- 980. Military Officer Special and Tactical Operations Leaders/Managers
- 981. First-Line Enlisted Military Supervisors/Managers
- 982. Military Enlisted Tactical Ops and Air/Weapons Specialists and Crew members
- 983. Military, Rank Not Specified (Census only)



999. DK; NA; Don't know; Not ascertained

-----  
*Source: U.S. Census Bureau, Demographic Surveys Division,  
Created: August 7 2001*

### **B3. Industry Codes**

Equivalent numeric codes follow the alphabetic codes. Either code may be used, depending on the processing method. Abbreviation "pt" means "part" and "n.e.c." means "not elsewhere classified."

#### **AGRICULTURE, FORESTRY, FISHING, AND HUNTING**

- 017. Crop production
- 018. Animal production
- 019. Forestry except logging
- 027. Logging
- 028. Fishing, hunting, and trapping
- 029. Support activities for agriculture and forestry

#### **MINING**

- 037. Oil and gas extraction
- 038. Coal mining
- 039. Metal ore mining
- 047. Nonmetallic mineral mining and quarrying
- 048. Not specified type of mining
- 049. Support activities for mining

#### **UTILITIES**

- 057. Electric power generation transmission and distribution
- 058. Natural gas distribution
- 059. Electric and gas and other combinations
- 067. Water, steam, air-conditioning, and irrigation systems
- 068. Sewage treatment facilities
- 069. Not specified utilities

#### **CONSTRUCTION**

- 077. Construction

#### **MANUFACTURING**

- 107. Animal food, grain, and oilseed milling
- 108. Sugar and confectionery products
- 109. Fruit and vegetable preserving and specialty food manufacturing
- 117. Dairy product manufacturing
- 118. Animal slaughtering and processing
- 119. Retail bakeries
- 127. Bakeries except retail
- 128. Seafood and other miscellaneous foods n.e.c.
- 129. Not specified food industries
- 137. Beverage manufacturing
- 139. Tobacco manufacturing
- 147. Fiber, yarn, and thread mills
- 148. Fabric mills, except knitting
- 149. Textile and fabric finishing and coating mills
- 157. Carpets and rugs manufacturing
- 159. Textile product mills except carpets and rugs
- 167. Knitting mills

168. Cut and sew apparel manufacturing
169. Apparel accessories and other apparel manufacturing
177. Footwear manufacturing
179. Leather tanning and products, except footwear manufacturing
187. Pulp, paper, and paperboard mills
188. Paperboard containers and boxes
189. Miscellaneous paper and pulp products
199. Printing and related support activities
207. Petroleum refining
209. Miscellaneous petroleum and coal products
217. Resin, synthetic rubber and fibers, and filaments manufacturing
218. Agricultural chemical manufacturing
219. Pharmaceutical and medicine manufacturing
227. Paint, coating, and adhesives manufacturing
228. Soap, cleaning compound, and cosmetic manufacturing
229. Industrial and miscellaneous chemicals
237. Plastics product manufacturing
238. Tire manufacturing
239. Rubber products, except tires, manufacturing
247. Pottery, ceramics, and related products manufacturing
248. Structural clay product manufacturing
249. Glass and glass product manufacturing
257. Cement, concrete, lime, and gypsum product manufacturing
259. Miscellaneous nonmetallic mineral product manufacturing
267. Iron and steel mills and steel product manufacturing
268. Aluminum production and processing
269. Nonferrous metal, except aluminum, production and processing
277. Foundries
278. Metal forgings and stampings
279. Cutlery and hand tool manufacturing
287. Structural metals and tank and shipping container manufacturing
288. Machine shops; turned product; screw nut and bolt manufacturing
289. Coating, engraving, heat treating and allied activities
297. Ordnance
298. Miscellaneous fabricated metal products manufacturing
299. Not specified metal industries
307. Agricultural implement manufacturing
308. Construction mining and oil field machinery manufacturing
309. Commercial and service industry machinery manufacturing
317. Metalworking machinery manufacturing
318. Engines, turbines, and power transmission equipment manufacturing
319. Machinery manufacturing, n.e.c.
329. Not specified machinery manufacturing
336. Computer and peripheral equipment manufacturing
337. Communications, audio, and video equipment manufacturing
338. Navigation, measuring, electrometrical, and control instruments manufacturing
339. Electronic component and product manufacturing, n.e.c.
347. Household appliance manufacturing
349. Electrical machinery, equipment, and supplies manufacturing, n.e.c.
357. Motor vehicles and motor vehicle equipment manufacturing
358. Aircraft and parts manufacturing
359. Aerospace product and parts manufacturing
367. Railroad rolling stock manufacturing
368. Ship and boat building
369. Other transportation equipment manufacturing
377. Sawmills and wood preservation

- 378. Veneer, plywood, and engineered wood product manufacturing
- 379. Prefabricated wood buildings and mobile homes manufacturing
- 387. Miscellaneous wood product manufacturing
- 389. Furniture and fixtures
- 396. Medical equipment and supplies manufacturing
- 397. Toys, amusement, and sporting goods manufacturing
- 398. Miscellaneous manufacturing, n.e.c.
- 399. Not specified manufacturing industries

#### **WHOLESALE TRADE**

- 407. Motor vehicles, parts and supplies wholesalers
- 408. Furniture and home furnishing wholesalers
- 409. Lumber and other construction materials wholesalers
- 417. Professional and commercial equipment and supplies Wholesalers
- 418. Metals and minerals, except petroleum, wholesalers
- 419. Electrical goods wholesalers
- 426. Hardware, plumbing and heating equipment, and supplies wholesalers
- 427. Machinery, equipment, and supplies wholesalers
- 428. Recyclable material wholesalers
- 429. Miscellaneous durable goods wholesalers
- 437. Paper and paper product wholesalers
- 438. Drugs, sundries, and chemical and allied product Wholesalers
- 439. Apparel, fabrics, and notions wholesalers
- 447. Groceries and related product wholesalers
- 448. Farm product raw material wholesalers
- 449. Petroleum and petroleum product wholesalers
- 456. Alcoholic beverage wholesalers
- 457. Farm supplies wholesalers
- 458. Miscellaneous nondurable goods wholesalers
- 459. Not specified wholesale trade

#### **RETAIL TRADE**

- 467. Automobile dealers
- 468. Other motor vehicle dealers
- 469. Auto parts, accessories, and tire stores
- 477. Furniture and home furnishings stores
- 478. Household appliance stores
- 479. Radio, TV, and computer stores
- 487. Building material and supplies dealers
- 488. Hardware stores
- 489. Lawn and garden equipment and supplies stores
- 497. Grocery stores
- 498. Specialty food stores
- 499. Beer, wine, and liquor stores
- 507. Pharmacies and drug stores
- 508. Health and personal care, except drug, stores
- 509. Gasoline stations
- 517. Clothing and accessories, except shoe, stores
- 518. Shoe stores
- 519. Jewelry, luggage, and leather goods stores
- 527. Sporting goods, camera, and hobby and toy stores
- 528. Sewing, needlework and piece goods stores
- 529. Music stores
- 537. Book stores and news dealers
- 538. Department stores
- 539. Miscellaneous general merchandise stores
- 547. Retail florists

- 548. Office supplies and stationary stores
- 549. Used merchandise stores
- 557. Gift, novelty, and souvenir shops
- 558. Miscellaneous retail stores
- 559. Electronic shopping and mail-order houses
- 567. Vending machine operators
- 568. Fuel dealers
- 569. Other direct selling establishments
- 579. Not specified retail trade

#### **TRANSPORTATION AND WAREHOUSING**

- 607. Air transportation
- 608. Rail transportation
- 609. Water transportation
- 617. Truck transportation
- 618. Bus service and urban transit
- 619. Taxi and limousine service
- 627. Pipeline transportation
- 628. Scenic and sightseeing transportation
- 629. Services incidental to transportation
- 637. Postal Service
- 638. Courier and messengers
- 639. Warehousing and storage

#### **INFORMATION**

- 647. Newspaper publishers
- 648. Publishing except newspapers and software
- 649. Software publishing
- 657. Motion pictures and video industries
- 659. Sound recording industries
- 667. Radio and television broadcasting and cable
- 668. Wired telecommunications carriers
- 669. Other telecommunication services
- 677. Libraries and archives
- 678. Other information services
- 679. Data processing services

#### **FINANCE AND INSURANCE**

- 687. Banking and related activities
- 688. Savings institutions, including credit unions
- 689. Non-depository credit and related activities
- 697. Securities, commodities, funds, trusts, and other financial investments
- 698. Insurance carriers and related activities

#### **REAL ESTATE AND RENTAL AND LEASING**

- 707. Real estate
- 708. Automotive equipment rental and leasing
- 717. Video tape and disk rental
- 718. Other consumer goods rental
- 719. Commercial, industrial, and other intangible assets rental and leasing

#### **PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES**

- 727. Legal services
- 728. Accounting, tax preparation, bookkeeping and payroll services
- 729. Architectural, engineering, and related services
- 737. Specialized design services

- 738. Computer systems design and related services
- 739. Management, scientific and technical consulting services
- 746. Scientific research and development services
- 747. Advertising and related services
- 748. Veterinary services
- 749. Other professional, scientific and technical services

**MANAGEMENT, ADMINISTRATIVE AND SUPPORT, AND WASTE MANAGEMENT SERVICES**

- 757. Management of companies and enterprises
- 758. Employment services
- 759. Business support services
- 767. Travel arrangement and reservation services
- 768. Investigation and security services
- 769. Services to buildings and dwellings
- 777. Landscaping services
- 778. Other administrative and other support services
- 779. Waste management and remediation services

**EDUCATIONAL SERVICES**

- 786. Elementary and secondary schools
- 787. Colleges and universities, including junior colleges
- 788. Business, technical, and trade schools and training
- 789. Other schools, instruction, and educational services

**HEALTH CARE AND SOCIAL ASSISTANCE**

- 797. Offices of physicians
- 798. Offices of dentists
- 799. Office of chiropractors
- 807. Offices of optometrists
- 808. Offices of other health practitioners
- 809. Outpatient care centers
- 817. Home health care services
- 818. Other health care services
- 819. Hospitals
- 827. Nursing care facilities
- 829. Residential care facilities, without nursing
- 837. Individual and family services
- 838. Community food and housing, and emergency services
- 839. Vocational rehabilitation services
- 847. Child day care services

**ARTS, ENTERTAINMENT, AND RECREATION**

- 856. Independent artists, performing arts, spectator sports, and related industries
- 857. Museums, art galleries, historical sites, and similar Institutions
- 858. Bowling centers
- 859. Other amusement, gambling, and recreation industries

**ACCOMODATIONS AND FOOR SERVICES**

- 866. Traveler accommodation
- 867. Recreational vehicle parks and camps, and rooming and boarding houses
- 868. Restaurants and other food services
- 869. Drinking places, alcoholic beverages

**OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)**

- 877. Automotive repair and maintenance

- 878. Car washes
- 879. Electronic and precision equipment repair and maintenance
- 887. Commercial and industrial machinery and equipment repair and maintenance
- 888. Personal and household goods repair and maintenance
- 889. Footwear and leather goods repair
- 897. Barber shops
- 898. Beauty salons
- 899. Nail salons and other personal care services
- 907. Dry cleaning and laundry services
- 908. Funeral homes, cemeteries and crematories
- 909. Other personal services
- 916. Religious organizations
- 917. Civic, social, advocacy organizations, and grantmaking and giving services
- 918. Labor unions
- 919. Business, professional, political, and similar Organizations
- 929. Private households

**PUBLIC ADMINISTRATION AND ACTIVE DUTY MILITARY**

- 937. Executive offices and legislative bodies
- 938. Public finance activities
- 939. Other general government and support
- 947. Justice, public order, and safety activities
- 948. Administration of human resource programs
- 949. Administration of environmental quality and housing programs
- 957. Administration of economic programs and space research
- 959. National security and international affairs
- 967. U.S. Army
- 968. U.S. Air Force
- 969. U.S. Navy
- 977. U.S. Marines
- 978. U.S. Coast Guard
- 979. U.S. Armed Forces, branch not specified
- 987. Military Reserves or National Guard
- 999. DK; NA; Don't know; Not ascertained

**C. State and Country Codes**

**C1. STATES**

- 01. Alaska (AK)
- 02. Alabama (AL)
- 53. American Samoa, Guam
- 03. Arizona (AZ)
- 04. Arkansas (AR)
- 05. California (CA)
- 06. Colorado (CO)
- 07. Connecticut (CT)
- 08. Delaware (DE)
- 51. Dist. of Columbia (DC)
- 09. Florida (FL)
- 10. Georgia (GA)
- 53. Guam (GU)
- 11. Hawaii (HI)
- 12. Idaho (ID)
- 13. Illinois (IL)
- 14. Indiana (IN)
- 15. Iowa (IA)
- 16. Kansas (KS)

17. Kentucky (KY)
18. Louisiana (LA)
19. Maine (ME)
20. Maryland (MD)
21. Massachusetts (MA)
22. Michigan (MI)
23. Minnesota (MN)
24. Mississippi (MS)
25. Missouri (MO)
26. Montana (MT)
27. Nebraska (NE)
28. Nevada (NV)
29. New Hampshire (NH)
30. New Jersey (NJ)
31. New Mexico (NM)
32. New York (NY)
33. North Carolina (NC)
34. North Dakota (ND)
35. Ohio (OH)
36. Oklahoma (OK)
37. Oregon (OR)
38. Pennsylvania (PA)
52. Puerto Rico (PR)
39. Rhode Island (RI)
40. South Carolina (SC)
41. South Dakota (SD)
42. Tennessee (TN)
43. Texas (TX)
44. Utah (UT)
45. Vermont (VT)
53. (U.S.) Virgin Islands
46. Virginia (VA)
47. Washington (WA)
51. Washington, D.C. (DC)
48. West Virginia (WV)
49. Wisconsin (WI)
50. Wyoming (WY)

**C2. OTHER U.S.**

51. District of Columbia; Washington, D.C.
52. Puerto Rico
53. Guam, American Samoa, U.S. Virgin Islands, Panama Canal Zone
59. USA, NA which state

**C3. OTHER COUNTRIES**

97. Other Country
  
98. DK
99. NA