

HEALTH AND RETIREMENT STUDY
2016 Core
Final, Version 2.0
December 2019

Data Description and Usage

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Data Description and Usage

1. Overview

The 2016 HRS Core (Final, Version 2.0) 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 2016

The data collection period for the 2016 interview was April 2016 through April 2018. 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. 2016 Questionnaire Sections

2016 Section	Content
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

NOTE: As of the 2016 data collection wave, sections K and L have been incorporated into Section J. Some items from Section L have been incorporated into Section J3.

1C. Levels of Files

In the 2016 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 2016 HRS Core (Final, Version 2.0), 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 2016.

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 2016.

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, H16PR_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 "H16" for HRS 2016, 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 H16A_R includes variables from Section A (coverscreen) at the respondent level, whereas, H16A_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,
- .SPS for SPSS program statements,
- .DO for STATA DO statements,
- .DCT for STATA dictionary statements, and
- .TXT for codebook files.

One of each of these file types is provided for each of the 40 data files for the 2016 HRS Core (Final, Version 2.0) data release. For example,

- H16A_R.DA contains respondent data from Section A,
- H16A_R.SAS contains corresponding SAS program statements,
- H16A_R.SPS contains corresponding SPSS program statements,

H16A_R.DO contains corresponding STATA DO statements,
H16A_R.DCT contains corresponding STATA dictionary statements, and
H16A_R.TXT contains the ASCII codebook.

3. Data Files

The 2016 HRS Core (Final, Version 2.0) 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 2016 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 OSUBHH

H16PR_H	N=15023	NV= 44
H16A_H	N=15023	NV= 47
H16E_H	N=15023	NV= 137
H16H_H	N=15023	NV= 196
H16Q_H	N=15023	NV= 682
H16R_H	N=15023	NV= 112
H16U_H	N=15023	NV= 246
H16IO_H	N=15023	NV= 56

Respondent level files, IDS=HHID PN

H16PR_R	N=20912	NV= 175
H16A_R	N=20912	NV= 34
H16B_R	N=20912	NV= 168
H16C_R	N=20912	NV= 240
H16D_R	N=20912	NV= 209
H16F_R	N=20912	NV= 186
H16G_R	N=20912	NV= 159
H16I_R	N=20912	NV= 209
H16IO_R	N=20912	NV= 77
H16J_R	N=20912	NV= 617
H16J3_R	N=20912	NV= 189
H16LB_R	N=20912	NV= 402
H16M1_R	N=20912	NV= 261
H16M2_R	N=20912	NV= 382
H16N_R	N=20912	NV= 352
H16P_R	N=20912	NV= 54
H16S_R	N=20912	NV= 114
H16T_R	N=20912	NV= 106
H16TN_R	N=20912	NV= 18
H16V_R	N=20912	NV= 319
H16W_R	N=20912	NV= 19
H16Y_R	N=20912	NV= 34

Household member and child level files, IDS=HHID OSUBHH OPN

H16PR_MC	N=80493	NV= 26
H16E_MC	N=66957	NV= 28

Sibling level files, IDS=HHID PN OPN

H16PR_SB	N=27349	NV= 18
H16F_SB	N=27349	NV= 22

Transfer-to-child-level-file, IDS=HHID OSUBHH
H16E_TC N= 7019 NV= 23

Transfer-from-child-level-file, IDS=HHID OSUBHH
H16E_FC N= 1183 NV= 23

Helper level file, IDS=HHID PN OPN
H16G_HP N= 6242 NV= 30

Jobs level file, IDS=HHID PN JOBID
H16PR_JB N=16460 NV= 16

Pension level files, IDS=HHID PN Pension ID
H16PR_P N= 8667 NV= 17
H16J2_P N=14996 NV= 190

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 2016 are stored in character format.

4A. Primary Identification Variables

Several variables, HHID, PSUBHH, 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. PSUBHH - 2016 Sub-household Identifier

In combination with HHID, PSUBHH uniquely identifies a household at the time of the 2016 data collection. Sub-household identifiers can be different at each wave. PSUBHH 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 2016 data collection HHID, PSUBHH 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) PSUBHH 2016 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) PSUBHH 2016 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) PSUBHH 2016 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

PSUBHH	2016	SUB	HOUSEHOLD	IDENTIFICATION	NUMBER
OSUBHH	2014	SUB	HOUSEHOLD	IDENTIFICATION	NUMBER
PPN_SP	2016	SPOUSE/PARTNER	PERSON	NUMBER	
PCSR	2016	WHETHER	COVERSHEET	RESPONDENT	
PFAMR	2016	WHETHER	FAMILY	RESPONDENT	
PFINR	2016	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

PSUBHH	2016	SUB	HOUSEHOLD	IDENTIFICATION	NUMBER
OSUBHH	2014	SUB	HOUSEHOLD	IDENTIFICATION	NUMBER
OPN_CS		PERSON	NUMBER	OF	COVER
PPN_FAM	2016	FAMILY	RESP	PERSON	NUMBER
PPN_FIN	2016	FINANCIAL	RESP	PERSON	NUMBER
PPN_NCS	2016	NON-COVERSCREEN	RESP	PERSON	NUMBER
PPN_NFAM	2016	NON-FAMILY	RESP	PERSON	NUMBER
PPN_NFIN	2016	NON-FINANCIAL	RESP	PERSON	NUMBER

4D. Datasets Including PSUBHH and OPN as Primary Identifiers

When working with datasets including PSUBHH and OPN as primary identifiers -- household-member-and-child-level, it is essential to use PSUBHH 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, PSUBHH is 1, and OPN is 101 is the report about the child from the mother, and the record where HHID is 890121, PSUBHH 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, PSUBHH is 2, and OPN is 151 is for the ex-wife's mother, while the record where HHID is 871231, PSUBHH 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 eight smaller files available individually for separate download. The combined file is H16core.zip.

The individual .zip files for separate download are:

Data file

H16da.zip contains data files.

Program statement files

H16sas.zip contains SAS program statements.

H16sps.zip contains SPSS program statements.

H16sta.zip contains STATA program statements.

Documentation files

H16cb.zip contains the codebook.

H16qn.zip contains the questionnaire.

H16dd.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:\hrs2016	Files downloaded from Web site
c:\hrs2016\codebook	Unzipped files from H16cb.zip
c:\hrs2016\data	Unzipped files from H16da.zip
c:\hrs2016\qnaire	Unzipped files from H16qn.zip
c:\hrs2016\sas	Unzipped files from H16sas.zip
c:\hrs2016\spss	Unzipped files from H16sps.zip
c:\hrs2016\stata	Unzipped files from H16sta.zip

Decompress the selected .zip files into the appropriate subdirectories. You will need about 450 MB of free space on your storage device to store the 40 .DA files.

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 H16A_R.SAS go with the H16A_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:\hrs2016\sas" and the data file is located in "c:\hrs2016\data", you can run the file as is. A SAS system file (*.SD2 or *.SAS7BDAT) will be saved to directory "c:\hrs2016\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:\hrs2016\spss" and the data file is located in "c:\hrs2016\data", you can run the file as is. An SPSS system file (*.SAV) will be saved to directory "c:\hrs2016\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:\hrs2016\STATA" and the data file is located in "c:\hrs2016\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 2016 tracker dataset and placed the files in a **Desktop** folder called **trk2016** 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 trk2016TR_R /name='~/Desktop/trk2016/data/TRK2016TR_R.da'
LRECL=221.
DATA LIST FILE= trk2016TR_R /
HHID 1-6(A)
[rest of syntax file goes here]
.
execute.
SAVE /outfile '~/Desktop/trk2016/spss/TRK2016TR_R.sav'.
Execute.
```

7A2. OS X: Stata

In the following example we assume that the user has downloaded the 2016 tracker dataset and placed the files in a **Desktop** folder called **trk2016** 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 TRK2016TR_R.do:

Change from...

```
infile using c:\trk2016\stata\TRK2016TR_R.dct
```

To...

```
infile using ~/Desktop/trk2016/stata/TRK2016TR_R.dct
```

Change from...

```
save c:\trk2016\stata\TRK2016TR_R.dta
```

To...

```
Save ~/Desktop/trk2016/stata/TRK2016TR_R.dta
```

File TRK2016TR_R.dct:

Change from...

```
dictionary using c:\trk2016\data\TRK2016TR_R.da {
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"
column(7) str3 PN %3s "PERSON NUMBER"
```

```
[additional dictionary statements]
```

```
}
```

To...

```
dictionary using ~/Desktop/trk2016/data/TRK2016TR_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 2016 tracker dataset and placed the files in a folder called **trk2016** (/home/user1/trk2016), with the ASCII data file (.da) stored in subfolder **data** (/home/user1/trk2016/data) and the syntax files (.do/.dct) in subfolder **stata** (/home/user1/trk2016/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 the .do and .dct files in the stata folder are modified.

File TRK2016TR_R.do:

Change from...

```
infile using c:\trk2016\stata\trk2016tr_r.dct
```

To...

```
infile using /home/user1/trk2016/stata/trk2016tr_r.dct
```

Change...

```
save c:\trk2016\stata\TRK2016TR_R.dta
```

To...

```
Save /home/user1/trk2016/stata/trk2016tr_r.dta
```

File TRK2016TR_R.dct:

Change from...

```
dictionary using c:\trk2016\data\trk2016tr_r.da {  
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"  
column(7) str3 PN %3s "PERSON NUMBER"
```

```
    [additional dictionary statements]
```

```
}
```

To...

```
dictionary using /home/user1/trk2016/data/trk2016tr_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.m, /home/user1/saswork/2016/sas).

Building SAS system files (One Section)

In the following example we assume that the user has downloaded the 2016 tracker dataset and placed the files in a folder called **trk2016** (/home/user1/saswork/trk2016) with the ASCII data file (.da) stored in subfolder **data** (/home/user1/saswork/trk2016) and the syntax file (.sas) in subfolder **sas** (/home/user1/saswork/trk2016/sas). Next step is to modify trk2016tr_r.sas to match the folder structure:

In file trk2016tr_r.sas:

Change from...

```
LIBNAME trk2016 'c:\trk2016\sas\';  
DATA trk2016.trk2016tr_r;  
INFILE 'c:\trk2016\data\trk2016tr_r.da' LRECL = 1028;
```

To...

```
LIBNAME trk2016 '/home/user1/saswork/trk2016/sas/';  
DATA trk2016.trk2016tr_r;  
INFILE '/home/user1/saswork/trk2016/trk2016tr_r.da' LRECL = 1028;
```

When the SAS file is run, it will create file trk2016tr_r.sas7bdat in folder /home/user1/saswork/trk2016/sas/.

Building SAS system files (Multiple Sections)

In the following example we assume that the user has downloaded the HRS 2016 Core dataset and placed the files in a folder called hrs2016 (/home/user1/saswork/hrs2016) with the ASCII data files (H16{sec}_{lvl}.da) stored in subfolder **data** (/home/user1/saswork/hrs2016/data) and the syntax files (H16{sec}_{lvl}.sas) in subfolder **sas** (/home/user1/saswork/hrs2016/sas).

Important: Begin by modifying each syntax file as follows:

Change all occurrences of...

```
LIBNAME H2016 'c:\hrs2016\sas\';
```

To...

```
LIBNAME H2016 '/home/user1/saswork/hrs2016/sas/';
```

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

```
INFILE 'c:\hrs2016\data\H16{sec}_{lvl}.da' LRECL = nnn;
```

To...

```
INFILE '/home/user1/saswork/hrs2016/data/H16{sec}_{lvl}.da' LRECL=nnn;
```

Example

```
INFILE '/home/user1/saswork/hrs2016/data/H16A_H.da' LRECL=87;
```

8. Documentation

There are several types of documentation available for use with the 2016 HRS Core (Final, Version 2.0) data release. These include a codebook and the 2016 box-and-arrow questionnaire. In addition, 2016 variables have been added to the [Online Concordance](#).

8A. Codebook

The HRS 2016 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 (P for 2016), followed by the section letter, and numbers after the section letter. For example, PC001 where P=2016, C=section C (physical health), and 001 is the variable number. Variables from the preload section of the instrument will have either PX or PZ 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:

```
PX007_R    RESP FAM/FIN TYPE - UPDATED  
PZ077_R    PREV WAVE R FIN/FAM TYPE
```

PX007_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 2016 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, PN219M1 through PN219M5 are 2016 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, PN049_1M1, is a 2016 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., PN025_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, PKW097A1, is a 2016 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, PKW002A, 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 2016.

The names of variables that were masked for confidentiality end in the capital letter "M"; for example, variable PX026M (1ST ADDRESS STATE - MASKED) and variable PB024M (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 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 2016 HRS Core (Final, Version 2.0). 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 462

households that had no family respondent; 257 households had no financial respondent. There are 5 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:

PPN_FAM - 2016 FAMILY RESP PERSON NUMBER
PPN_FIN - 2016 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 PZ041.

Example Random Entry Assignment Variable from Preload:

Preload Variable from the data file H16pr_h:

```
.....
PZ041                                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
.....
3897                1.  RANDOM ASSIGNMENT 1
3871                2.  RANDOM ASSIGNMENT 2
3895                3.  RANDOM ASSIGNMENT 3
7                   Blank.  Data Missing
```

.....
 Unfolding Series from section Q that uses PZ041 to assign respondents an entry point:

.....
 PQ016 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

.....
 124 0. Value of Breakpoint
 4 5000. Value of Breakpoint
 16 5001. Value of Breakpoint
 6 10000. Value of Breakpoint
 20 10001. Value of Breakpoint
 1 25000. Value of Breakpoint
 17 25001. Value of Breakpoint
 1 100000. Value of Breakpoint
 5 100001. Value of Breakpoint
 11476 Blank. INAP (Inapplicable); Partial Interview

.....
 PQ017 R INCOME FROM SELF EMPLOYMENT - MAX
 Section: Q Level: Household Type: Numeric Width: 8 Decimals: 0
 Ref: SecQ.RIncome.Q017_

*

.....
 38 4999. Value of Breakpoint
 4 5000. Value of Breakpoint
 16 9999. Value of Breakpoint
 6 10000. Value of Breakpoint
 18 24999. Value of Breakpoint
 1 25000. Value of Breakpoint
 15 99999. Value of Breakpoint
 1 100000. Value of Breakpoint
 95 99999996. Greater than Maximum Breakpoint
 11476 Blank. INAP (Inapplicable); Partial Interview

.....
 PQ018 R INCOME FROM SELF EMPLOYMENT - RESULT
 Section: Q Level: Household Type: Numeric Width: 2 Decimals: 0
 Ref: SecQ.RIncome.Q018_

*

.....
 24 98. DK (Don't Know); NA (Not Ascertained)
 70 99. RF (Refused)
 11576 Blank. INAP (Inapplicable); Partial Interview

9C. Modules for the 2016 Data Collection

There are 10 modules for 2016 HRS. The module data can be found in the file H16V_R. Topical areas of the modules include:

Module 1: Symptom Prevalence of Adult Attention Deficit Hyperactivity Disorder (ADHD)
Module 2: Financial Mismanagement at Older Ages
Module 3: Financial Advice and Financial Capacity at Older Ages
Module 4: Material Hardship
Module 5: Subjective Conditional Probabilities of Working (R's < age 65)
Module 6: Long-term Care Expectations
Module 7: Medication Non-Adherence
Module 8: Religious Life Histories
Module 9: Affordable Care Act
Module 10: HRS Coordinated Care

9D. 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.

9E. 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 2016, 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
Breathing test (peak flow)
Grip strength
Timed walk (8 ft.)
Balance tests (semi-tandem, side-by-side, full tandem)
Height
Weight
Waist circumference
Saliva (for which DNA was extracted and stored)
Dry blood spots (analyzed for Hemoglobin A1c, 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 2016](#). The booklet contains the consent forms, as well as instructions and protocols for all of the measurements.

9F. Summary of Data Model (DM) Changes during 2016 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 PVDATE 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 N - Health Insurance

N291_Placeofcare: Reverted back to the 2014 codeframe.

--

Data Model 3 Changes:

Section A - Coverscreen

A071_SameMainRes: Restricted the assignment of X033 = 1 to re-interview households only.

Section B - Demographics

B134 and B135: Only new Cohort respondents should be asked questions B134 and B135. Updated the rules to use X024 not 1 (new cohort).

Section H - Housing

H066_: Max value increased to 99,999,999.

H100_HousingAssoc: Made an adjustment to correct the flow so that a new respondent who does not own or rent (H014=7) does not jump to H100.

Section N - Health Insurance and Service Utilization

N260, N261 and N262: Changed the code to single entry instead of multi.

Section P - Expectations

P168_: Corrected the create fill (P170) used in P168 and corrected the gain/fallen fill at P168 when P166 = 0% or 100% or DK/RF.

P196: Added a new variable P196 that contains the word actually read to the respondent "more" or "less".

P197: Added a new variable P197 that contains the word actually read to the respondent "fallen" or "gained".

Section V - Experimental Modules

V217: New wealth variables were added to keep values of presented fills:

- V217 Health fill 1, used at: V203, V208
- V218 Health fill 2, used at: V204, V209
- V219 Health fill 3, used at: V205, V210
- V220 Health fill 4, used at: V206, V211
- V221 Health fill 5, used at: V207, V212

--

Data Model 4 Changes:

Section V2 - Financial Mismanagement at Older Ages

v057, v058 and v059: Variables V057, V058 and V059 were dropped beginning with data model 4. They still exist in the data but were only asked in data models 1, 2 and 3.

Section V3 - Financial Advice and Financial Capacity at Older Ages

V106/V118: A programming error was found where some respondents were not being properly routed based on their response to V106, and were not asked V118. Respondents were properly asked the question from Data Model 4 forward.

V129: Added the words "bankers or other professional" to the question text.

Section V8 - Religious Life Histories

V351_RELIGRAISED: Updated the interviewer text to (1) include the following text "If R says Baptist, Methodist, Lutheran, Presbyterian, Pentecostal, Episcopal or Anglican, code as 1. Protestant and enter the denomination on the next screen." and (2) add additional instruction for multiple responses: "If R mentions more than one religion, record the one that was mentioned first."

--

Data Model 5 Changes:

Section E - Children and Transfers

E105_FinHelpToRel: Corrected the wording for E105 to read: ".....did you give financial help... TO relatives such as siblings or nieces and nephews. Please do not count the help TO children, grandchildren"

Section N - Health Insurance and Service Utilization

N092_EmplHlthIns: Correct two flow problems: respondents who are covered by employer insurance were being asked N092 and N093 (does employer offer insurance/did they offer to R) respondents who were covered by employer insurance in previous wave were skipping N094 in error.

Section J2 - Pensions

W408_WhichProvider: Created a new variable which stores the original index used in W408 based on preload.

Section U - Asset Verification

U013_globale1: Global eligibility was changed to be greater than or equal to 2014.

--

Data Model 6 Changes:

Section J2 - Pensions

J338A: Corrected the Spanish wording which erroneously instructed interviewers to code 401K plans as defined benefit plans when they should be coded as defined contribution plans.

Section V9 - Affordable Care Act

V401_LASTVOTEYR: Updated to allow 2016 as an option for voting in the Presidential election.

--

Data Model 7 Changes:

Section V9 - Affordable Care Act

V402, V403 and V404: Variables were dropped

--

Data Model 8 changes:

Section D - Cognition

D157_: Updated to accept Obama or Trump as correct.

D158_: Updated to accept Biden or Pence as correct.

--

Data Model 9 Changes:

(There were no significant changes to report in Data Model 9.)

--

Data Model 10 Changes:

Section D - Cognition

D157 and D158: To accommodate the correct answers to D157 and D158 after the Jan 20, 2017 inauguration, revised D157 instruction to say: "Answer is Trump" and D158 instruction to say: "Answer is Pence".

--

Data Model 11 Changes:

(There were no significant changes to report in Data Model 11.)

--

Data Model 12 Changes:

Section A - Coverscreen

A020, A026 and A027: Incorrect preload values in X065 (and X066) were found that caused R to skip A020 or A026/A027 which caused skip issues in the subsequent sections of the questionnaire. If X065 was empty, respondent was routed to A026. If X065=2 (remarried) or 4(re-partnered), respondent will go to A020.

--

Data Model 13 Changes:

Certain dates throughout the instrument were adjusted to accommodate the extended field period, which continued on into 2018.

9G. New Questions in HRS 2016

Section PR: Preload - PX092, PX527, PX528, PX529, PX530, PZ277, PZ553_1-_3

Section A: Coverscreen - PA078, PA219

Section B: Demographics - PB135

Section C: Health - PC253A, PC284, PC285, PC287, PC288, PC289, PC290, PC291, PC292, PC293M1-M7, PC296

Section D: Cognition - PD200, PNSSCORE, PNSSCORESE

Section E: Children and Transfers - PE047, PE048

Section I: Physical Measures and Biomarkers - PI668, PI669, PI672, PI673, PI674, PI675, PI678, PI679, PI680, PI681, PI682, PI683M1-M5, PI685M1-M4, PI687M1-M4, PI946, PI975

Section IO: Interviewer Observations - P046M1-M5

Section J: Employment - PJ963, PJKW788_1, P JL009_2, P JL010_2, P JL011_2, P JL012_2, P JL013_2M, P JL015_2M, P JL016_2, P JL017_2, P JL018_2, P JL020_2, P JL021_2, P JL022_2, P JL023_2, P JL025_2M1-2M4, P JL095_2, P JL096_2, P JL099, P JL102, P JL103, P JL104, P JL105, P JL106, P JL107, P JL108, P JL109, P J L W 788_1, P J L W 788_2, P J W 786_1-_5, P J W 788_1, P J W 788_2

Section J2: Pensions - PJ2962, PJ2W790

Section J3: Retirement and Social Security - PJ3Assist, P JL3110, P JL3111

Section N: Health Service and Service Utilization - PN213M1-M3, PN261, PN299, PN300, PN480_1-_3, PN482_1-_3, PN483_1-_3, PN484_1-_3, PN485_1-_3

Section P: Expectations - PP195, PP196, PP197

Section Q: Income and Assets - PQ465

9H. Changes to HRS 2016 Core Final Version 2.0

In Section Q, data for the following 15 households that was inadvertently set to missing in Final Version 2.0 is now provided.

HHID	PSUBHH
017328	1
053882	0
130560	2
180361	6
500623	0
500842	0
501108	0
502041	0
524740	1
526375	0
528940	0
532512	1
905783	0
910494	0
914243	0

The variables impacted by these changes are: PQ010 PQ012 PQ013 PQ014 PQ015 PQ019 PQ020 PQ024 PQ025 PQ029 PQ034 PQ039 PQ040 PQ041 PQ042 PQ044 PQ045 PQ049 PQ050 PQ054 PQ055 PQ056 PQ057 PQ059 PQ064 PQ065 PQ066 PQ070 PQ074 PQ075 PQ076 PQ080 PQ085 PQ089 PQ084 PQ091 PQ095 PQ096 PQ105 PQ106 PQ107 PQ113 PQ114 PQ119 PQ133 PQ147 PQ162 PQ163 PQ164_1 PQ165_1 PQ166_1 PQ167_1 PQ168_1 PQ169_1 PQ537_1 PQ538_1 PQ513_1 PQ514_1 PQ170_1 PQ171_1 PQ175_1 PQ177_1 PQ182 PQ215 PQ216 PQ217 PQ218 PQ219_1 PQ220_1 PQ224_1 PQ225_1 PQ226_1 PQ231_1 PQ233_1 PQ234_1 PQ236_1 PQ273 PQ274 PQ316 PQ317 PQ321 PQ330 PQ344 PQ345 PQ349 PQ350 PQ352 PQ353 PQ354 PQ494 PQ495 PQ356 PQ357 PQ361 PQ362 PQ364 PQ365 PQ366 PQ370 PQ371 PQ375 PQ395 PQ400 PQW776_1 PQW777_1 PQW778_1M1 PQW778_1M2 PQW778_1M3 PQW776_2 PQW777_2 PQW778_2M1 PQW778_2M2 PQW778_2M3 PQW778_2M4 PQW778_2M5 PQW778_2M6 PQW778_2M7 PQW778_2M8 PQW778_2M9 PQW778_2M10 PQW778_2M11 PQW778_2M12 PQW776_3 PQW777_3 PQW778_3M1 PQW778_3M2 PQW778_3M3 PQW778_3M4 PQW778_3M5 PQW778_3M6 PQW778_3M7 PQW778_3M8 PQW778_3M9 PQW778_3M10 PQW778_3M11 PQW778_3M12 PQW776_4 PQW777_4 PQW778_4M1 PQW778_4M2 PQ532 PQ410 PQ414 PQ415 PQ516 PQ417 PQ421 PQ426 PQ427 PQ428 PQ431_1 PQ432_1 PQ433_1 PQ434_1 PQ435_1 PQ436_1 PQ431_2 PQ432_2 PQ433_2 PQ434_2 PQ435_2 PQ436_2 PQ431_3 PQ432_3 PQ431_4 PQ432_4 PQ431_5 PQ432_5 PQ431_6 PQ432_6 PQ431_7 PQ432_7 PQ437 PQ441 PQ442 PQ443 PQ444 PQ446 PQ447 PQ453 PQ454 PQ455 PQ456 PQ464 PQ477 PQ478 PQ479 PQ480 PQ481 PQ517 PQ518 PQ519 PQ482_1 PQ483_1 PQ484_1 PQ487_1 PQ486_1 PQ488_1 PQ490_1 PQ482_2 PQ483_2 PQ493

In Sections G_R and G_HP, corrections were made to select variables for the following respondents who had duplicate OPNs assigned

HHID	PN	PSUBHH	OPN
023876	010	0	083
500143	010	0	010
902424	101	0	101
084754	083	2	083

The variables impacted by these changes are: PG069 PG066 PADLNDX PIADLNDX PG070 PG072 PG073 PG074 PG076 PG077 PG078 PG080 PG081 PG032_5 PG035_5 PG032_6 PG033_6 PG035_6

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. You must agree to:

- o not attempt to identify respondents
- o not transfer data to third parties except as specified
- o not share your username and password
- o include specified citations in work based on HRS data
- o provide information to us about publications based on HRS data
- o report apparent errors in the HRS data or documentation files
- o notify us of changes in your contact information

For more information concerning privacy issues and conditions of use, please read "Conditions of Use for Public Data Files" and "Privacy and Security Notice" at the Public File Download Area of the HRS Web site.

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, Room 3450
P.O. Box 1248
Ann Arbor, MI (USA) 48106-1248

Alternately, you may contact us by e-mail at 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 2016 HRS Core (Final, Version 2.0) 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: hrsquestions@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 reunited¹. 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

¹In 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/factor VIII 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

ACCOMMODATIONS AND FOOD 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