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

Data Description and Usage

TABLE OF CONTENTS

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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 SCREEN RESPONDENT
        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 he
.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_globalel: Global eligibility was changed to be greater than or equal to 2014.

--
Data Model 6 Changes:
Section J2 – Pensions
J338A: 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, PJL009_2, PJL010_2, PJL011_2, PJL012_2, PJL013_2M, PJL015_2M, PJL016_2, PJL017_2, PJL018_2, PJL020_2, PJL021_2, PJL022_2, PJL023_2, PJL025_2M1-2M4, PJL095_2, PJL096_2, PJL099, PJL102, PJL103, PJL104, PJL105, PJL106, PJL107, PJL108, PJL109, PJLW788_1, PJLW788_2, PJW786_1-_5, PJW788_1, PJW788_2

Section J2: Pensions - PJ2962, PJ2W790

Section J3: Retirement and Social Security - PJ3Assist, PJL3110, PJL3111

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 hrsquestions@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 reunited[1].
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

---

[1]In addition, a SUBHH of 3 or 4 indicates the "household" of a deceased respondent who is considered to be in a household of his or her own. These

values do not occur in these files because all records in these files are from living respondents.

A2. Couple Divorces

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

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

Time 1
```
Household records
     HHID=023456 ASUBHH=0
Respondent records
     HHID=023456 PN=010 ASUBHH=0
     HHID=023456 PN=020 ASUBHH=0
```
Time 2
```
Household records
     HHID=023456 CSUBHH=1
     HHID=023456 CSUBHH=2
Respondent records
     HHID=023456 PN=010 CSUBHH=1
     HHID=023456 PN=020 CSUBHH=2
```

A3. One or Both Respondents Die

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

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

Time 1
```
Household records
     HHID=034567 ASUBHH=0
Respondent records
     HHID=034567 PN=010 ASUBHH=0
     HHID=034567 PN=020 ASUBHH=0
```
Time 2
```
Household records
     HHID=034567 CSUBHH=0
HHID=034567 CSUBHH=3 (in exit interview)
Respondent records
HHID=034567 PN=010 CSUBHH=3 (in exit interview)
     HHID=034567 PN=020 CSUBHH=0
```

A4. Single Respondent Marries

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

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

Time 1
```
Household records
      HHID=045678 ASUBHH=0
Respondent records
      HHID=045678 PN=010 ASUBHH=0
```

Time 2
```
Household records
      HHID=045678 CSUBHH=0
Respondent records
      HHID=045678 PN=010 CSUBHH=0
      HHID=045678 PN=011 CSUBHH=0
```

A5. Couple Divorces, One Respondent Remarries and Divorces
Two respondents in a sample household are married at the time of the first cross-section. Each respondent is assigned a HHID of 056789 and a SUBHH of 0. One respondent has a PN of 010, the other a PN of 020.

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

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

Time 1
```
Household records
      HHID=056789 ASUBHH=0
Respondent records
      HHID=056789 PN=010 ASUBHH=0
      HHID=056789 PN=020 ASUBHH=0
```

Time 2
```
Household records
      HHID=056789 CSUBHH=1
      HHID=056789 CSUBHH=2
Respondent records
      HHID=056789 PN=010 CSUBHH=2
      HHID=056789 PN=011 CSUBHH=2
      HHID=056789 PN=020 CSUBHH=1
```

Time 3
```
Household records
      HHID=056789 FSUBHH=1
      HHID=056789 FSUBHH=2
```

```
      HHID=056789 FSUBHH=5
Respondent records
      HHID=056789 PN=010 FSUBHH=2
      HHID=056789 PN=011 FSUBHH=5
      HHID=056789 PN=020 FSUBHH=1
```

A6. Couple Divorces and Marries Again
Two respondents in a sample household are married at the time of the first
cross-section. Each respondent is assigned a HHID of 067890 and a SUBHH of 0.
One respondent has a PN of 010, the other a PN of 020.

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

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

Time 1
```
Household records
      HHID=067890 ASUBHH=0
Respondent records
      HHID=067890 PN=010 ASUBHH=0
      HHID=067890 PN=020 ASUBHH=0
```

Time 2
```
Household records
      HHID=067890 CSUBHH=1
      HHID=067890 CSUBHH=2
Respondent records
      HHID=067890 PN=010 CSUBHH=1
      HHID=067890 PN=020 CSUBHH=2
```

Time 3
```
Household records
      HHID=067890 FSUBHH=7
Respondent records
      HHID=067890 PN=010 FSUBHH=7
      HHID=067890 PN=020 FSUBHH=7
```

A7. Married Couple with Children and Siblings
At the time of the first cross-section, sample household with a HHID of 078901
contains two respondents assigned PNs of 010 and 020, respectively. Associated
with the household are three children with OPNs of 101, 102, and 103, and two
siblings with OPNs of 051 and 052. All seven persons will keep those same PNs
and OPNs across time. A friend who lives with the respondents is assigned an OPN
of 080. The friend will keep her OPN of 080 across time only if she is a
household member at each wave.

Time 1
```
Household records
      HHID=078901 ASUBHH=0
Respondent records
      HHID=078901 PN=010 ASUBHH=0
      HHID=078901 PN=020 ASUBHH=0
```

```
Household member/child records
     HHID=078901 ASUBHH=0 OPN=101 (child)
     HHID=078901 ASUBHH=0 OPN=102 (child)
     HHID=078901 ASUBHH=0 OPN=103 (child)
     HHID=078901 ASUBHH=0 OPN=051 (sibling)
     HHID=078901 ASUBHH=0 OPN=052 (sibling)
     HHID=078901 ASUBHH=0 OPN=080 (friend)
```

A8. Couple with Children and Siblings Divorces
At the time of the first cross-section, sample household with a HHID of 089012
contains two respondents assigned PNs of 010 and 020, respectively. Associated
with the household are two children with OPNs of 101, and 102, and three
siblings, her two brothers with OPNs of 051 and 052 and his sister with an OPN
of 061. A friend who lives with the respondents is assigned an OPN of 080.

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

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

Time 1
```
Household records
     HHID=089012 ASUBHH=0
Respondent records
     HHID=089012 PN=010 ASUBHH=0
     HHID=089012 PN=020 ASUBHH=0
Household member/child records
     HHID=089012 ASUBHH=0 OPN=101 (child)
     HHID=089012 ASUBHH=0 OPN=102 (child)
HHID=089012 ASUBHH=0 OPN=051 (her brother)
HHID=089012 ASUBHH=0 OPN=052 (her brother)
HHID=089012 ASUBHH=0 OPN=061 (his sister)
     HHID=089012 ASUBHH=0 OPN=080 (friend)
```

Time 2
```
Household records
     HHID=089012 CSUBHH=1
     HHID=089012 CSUBHH=2
Respondent records
     HHID=089012 PN=010 CSUBHH=2
     HHID=089012 PN=020 CSUBHH=1
Household member/child records
     HHID=089012 CSUBHH=1 OPN=101 (child)
     HHID=089012 CSUBHH=1 OPN=102 (child)
HHID=089012 CSUBHH=1 OPN=051 (her brother)
HHID=089012 CSUBHH=1 OPN=052 (her brother)
     HHID=089012 CSUBHH=2 OPN=101 (child)
     HHID=089012 CSUBHH=2 OPN=102 (child)
```

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

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

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

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

Time 1
Household records
      HHID=090123 ASUBHH=0
Respondent records
      HHID=090123 PN=010 ASUBHH=0
      HHID=090123 PN=020 ASUBHH=0

Time 2
Household records
      HHID=090123 CSUBHH=1
      HHID=090123 CSUBHH=2
Respondent records
      HHID=090123 PN=010 CSUBHH=1
      HHID=090123 PN=011 CSUBHH=1 (new wife)
      HHID=090123 PN=020 CSUBHH=2
Household member/child records
HHID=090123 CSUBHH=1 OPN=151 (his stepchild)
HHID=090123 CSUBHH=1 OPN=152 (his stepchild)
      HHID=090123 CSUBHH=2 OPN=151 (her mom)

B. Master Codes

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

The Master Codes in order of appearance are:
      B1. Health Conditions – Categorical
      B2. Occupation Codes
      B3. State and Country Codes

B1. Health Conditions - Categorical
NOTE: If necessary, use individual "Other" categories if system or type of condition is clear; otherwise, code 997.

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

102. Tumors, cysts or growths (except 101); polyps; osteomyelitis; pre-cancer; neuroma; benign tumors; mole removal; warts; subdural hygroma
103. Skin conditions--any mention except cancer (101) or tumor (102); dermatitis; eczema; rashes; Paget's disease; skin ulcers; bedsores; bullous pemphigoid; hair loss; pemphigus; seborrheic keratosis; rosacea; alopecia; psoriasis; burns (also use code 194 if available)

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

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

disease; triglycerides or high triglycerides; toxoplasmosis; blood transfusion; sickle cell trait; bone marrow failure; factor VIII/factorVIII deficiency/elevated factor VIII ; thrombocytopenia; hemochromatosis;

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

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

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

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

155. Bladder conditions (except 156); urinary infections; interstitial cystitis, urosepsis
156. Urinary incontinence; urinary loss/leakage; problems with bladder control
157. Spleen conditions; enlarged spleen
159. Other digestive system problems; internal bleeding; hemorrhage; esophagus torn, ruptured or bleeding; swallowing difficulty; feeding tube

Neurological and sensory conditions
161. Blindness or vision problems: glaucoma; cataracts; detached/torn retina; macular degeneration; uveitis; ocular myasthenia gravis; conjunctivitis; eye conditions, NFS
162. Deafness; hearing loss or other ear conditions; tinnitus; vestibular disorder; Meniere's disease
163. Multiple sclerosis; cerebral palsy; epilepsy; Parkinson's; amyotrophic lateral sclerosis (ALS) or Lou Gehrig's disease); seizures; neuropathy; peripheral neuropathy
164. Speech conditions--any mention; congenital speech defects; stuttering; laryngectomy; speech impediment
165. Mental retardation; mental impairment; learning disabilities; Down syndrome; dyslexia
169. Other neurological/sensory problems; headaches; migraines; dizziness; blackouts; brain damage, NFS (also use code 194 if available); meningitis; arachnoiditis; Bell's palsy; Charcot-Marie-Tooth disease; Guillain-Barre syndrome; medial nerve palsy; myasthenia gravis/myasthenia (non-ocular); myokymia; reflex sympathetic dystrophy (RSD); restless legs syndrome (RLS); Sjogren's syndrome; spasmodic torticollis; balance problems; closed head injury; coma; paralyzed diaphragm; facial neuralgia; hydrocephalus; inclusive body myositis; spinal cerebella ataxia; benign/familiar 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. Constructions 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. Dieticians and Nutritionists
304. Optometrists
305. Pharmacists
306. Physicians and Surgeons
311. Physician Assistants
312. Podiatrists
313. Registered Nurses
314. Audiologists
315. Occupational Therapists

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 Gar
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

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

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

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

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

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

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

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

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

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

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

PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
727. Legal services
728. Accounting, tax preparation, bookkeeping and payroll services
729. Architectural, engineering, and related services

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

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

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

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

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

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

OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)

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

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

C. State and Country Codes

C1. STATES
01. Alaska (AK)
02. Alabama (AL)
53. American Samoa, Guam
03. Arizona (AZ)
04. Arkansas (AR)
05. California (CA)
06. Colorado (CO)
07. Connecticut (CT)
08. Delaware (DE)
51. Dist. of Columbia (DC)
09. Florida (FL)
10. Georgia (GA)
53. Guam (GU)
11. Hawaii (HI)
12. Idaho (ID)
13. Illinois (IL)
14. Indiana (IN)
15. Iowa (IA)

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

C2. OTHER U.S.
51. District of Columbia; Washington, D.C.
52. Puerto Rico
53. Guam, American Samoa, U.S. Virgin Islands, Panama Canal Zone
59. USA, NA which state

C3. OTHER COUNTRIES
97. Other Country

98. DK
99. NA