# HEALTH AND RETIREMENT STUDY 2008 Core 

Final, Version 3.0
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Data Description and Usage

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## Data Description and Usage

## 1. Overview

The 2008 HRS Core (Final, Version 3.0) 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 (NIH U01 AG09740), 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 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 2008

The data collection period for the 2008 interview was February 2008 through February 2009. The HRS sample is comprised of five sub-samples.

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 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 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 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.

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) or 2004 (EBB). For more details about the sample, see our Web site.

## 1B. 2008 Questionnaire Sections

| 2008 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 |
| J | Employment |
| K | Last Job |
| L | Job History |
| 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 Reconciliation |
| V | Modules |
| W | Event History, Internet Use and Social Security |
| RC | Repeat Cognition |
| Y | Time Calculations |
| IO | Interviewer Observations |
| LB | Leave-Behind Questionnaires |
| TN | Thumbnails |

## 1C. Levels of Files

In the 2008 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 2008 HRS Core (Final, Version 3.0), contains files at five other levels: household-member-and-child, sibling, helper, transfer-to-child and transfer-fromchild.

## 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 2008.

## 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 2008.

## 1C3. Sibling Level File

The sibling 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, H08PR_SB.

## 1C4. Household Member and Child Level Files

These files contain characteristics about household members and children. The information can come from Section A (coverscreen) or the family respondent in Section E and also in the preload section.

## 1C5. Helper Level File

This 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 ADLs or 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

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

## 2. File Naming Conventions

Files are named beginning with "H08" for HRS 2008, 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
For example, the file H08A_R includes variables from Section A (coverscreen) at the respondent level, whereas, H08A_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 39 data files for the 2008 HRS Core (Final, Version 3.0) data release. For example,

```
H08A_R.DA contains respondent data from Section A,
H08A_R.SAS contains corresponding SAS program statements,
H08A_R.SPS contains corresponding SPSS program statements,
H08A_R.DO contains corresponding STATA DO statements,
H08A_R.DCT contains corresponding STATA dictionary statements, and
H08A_R.TXT contains the ASCII codebook.
```


## 3. Data Files

The 2008 HRS Core (Final, Version 3.0) data are distributed in 39 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 2008 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 LSUBHH
H08PR_H N=11897 NV= 47
H08A_H N=11897 NV= 43
H08E_H N=11897 NV= 119
H08H_H N=11897 NV= 225
H08Q_H N=11897 NV= 699
H08R_H N=11897 NV= 112
H08U_H N=11897 NV= 245
H08IO_H N=11897 NV= 72

```
Respondent level files, IDS=HHID PN
    H08PR_R N=17217 NV= 171
    H08A_R N=17217 NV= 34
    H08B_R N=17217 NV= 179
    H08C_R N=17217 NV= 229
    H08D_R N=17217 NV= 155
    H08RC_R N=17217 NV= 89
    H08F_R N=17217 NV= 195
    H08G_R N=17217 NV= 133
    H08I_R N=17217 NV= 186
    H08IO_R N=17217 NV= 120
    H08J_R N=17217 NV= 1536
    H08K_R N=17217 NV= 255
    H08L_R N=17217 NV= 436
    H08LB_R N=17217 NV= 374
    H08M1_R N=17217 NV= 269
    H08M2_R N=17217 NV= 453
    H08N_R N=17217 NV= 338
    H08P_R N=17217 NV= 70
    H08S_R N=17217 NV= 115
    H08T_R N=17217 NV= 81
    H08V_R N=17217 NV= 331
    H08W_R N=17217 NV= 43
    H08TN_R N=17217 NV= 21
    H08Y_R N=17217 NV= 70
Household member and child level files IDS=HHID LSUBHH OPN
    H08PR_MC N=69523 NV= 27
    H08E_MC N=66128 NV= 28
Sibling level files IDS=HHID PN OPN
    H08PR_SB N=15599 NV= 24
    H08F_SB N=6400 NV= 28
Transfer-to-child-level-file IDS=HHID LSUBHH OPN
    H08E_TC N=5521 NV= 24
Transfer-from-child-level-file IDS=HHID LSUBHH OPN
    H08E_FC N=926 NV= 22
Helper level file IDS=HHID PN OPN
    H08G_HP N=4678 NV= 30
```

Household and respondent level weight variables for the 2008 sample are available in the HRS cross-wave Tracker file (2008, Version 1.0).

## 4. Identification Variables

Identification variables for HRS 2008 are stored in character format.

## 4A. Primary Identification Variables

Several variables, HHID, LSUBHH, PN, and OPN, are used in various combinations to uniquely identify the seven different levels 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, and 2004 for the EBB 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. LSUBHH - 2008 Sub-household Identifier
In combination with HHID, LSUBHH uniquely identifies a household at the time of the 2008 data collection. Sub-household identifiers can be different at each wave. LSUBHH 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. PN is 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 2008 data collection HHID, LSUBHH and OPN uniquely identify another person in the household-member-and-child level files; HHID, PN, and OPN uniquely identify another person in the helper-level or sibling level files. OPN has three-digits.

## 4B. Primary Identification Variables for Datasets at Each of the Seven 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) LSUBHH 2008 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 datasets:

1) HHID HOUSEHOLD IDENTIFICATION NUMBER
2) LSUBHH 2008 SUB HOUSEHOLD IDENTIFICATION NUMBER
3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the o sibling-level datasets:
$\begin{array}{ll}\text { 1) HHID } & \text { HOUSEHOLD IDENTIFICATION NUMBER } \\ \text { 2) PN } & \text { RESPONDENT PERSON IDENTIFICATION NUMBER } \\ \text { 3) OPN } & \text { OTHER PERSON NUMBER }\end{array}$

Three identifiers uniquely identify records in the
o transfer-to-child-level, and
o transfer-from-child-level datasets:

| 1) | HHID |
| :--- | :--- |
| 2) | HOUSEHOLD IDENTIFICATION NUMBER |
| 3) OSN | 2008 SUB HOUSEHOLD IDENTIFICATION NUMBER |
| OPN | OTHER PERSON 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,
o sibling-level and
o helper-level datasets:

| LSUBHH | 2008 SUB HOUSEHOLD IDENTIFICATION NUMBER |
| :--- | :--- |
| KSUBHH | 2006 SUB HOUSEHOLD IDENTIFICATION NUMBER |
| LPN_SP | 2008 SPOUSE/PARTNER PERSON NUMBER |
| LCSR | 2008 WHETHER COVERSHEET RESPONDENT |
| LFAMR | 2008 WHETHER FAMILY RESPONDENT |
| LFINR | 2008 WHETHER FINANCIAL RESPONDENT |

Secondary Identification Variables for
o household-level, o household-member-and-child-level, o transfer-from-child-level and o transfer-to-child-level datasets:

| KSUBHH | 2006 SUB HOUSEHOLD IDENTIFICATION NUMBER |
| :--- | :--- |
| LPN_CS | PERSON NUMBER OF COVER SCREEN RESPONDENT |
| LPN_FAM | 2008 FAMILY RESP PERSON NUMBER |
| LPN_FIN | 2008 FINANCIAL RESP PERSON NUMBER |
| LPN_NCS | 2008 NON-COVERSCREEN RESP PERSON NUMBER |
| LPN_NFAM | 2008 NON-FAMILY RESP PERSON NUMBER |
| LPN_NFIN | 2008 NON-FINANCIAL RESP PERSON NUMBER |

## 4D. Datasets Including LSUBHH and OPN as Primary Identifiers

When working with datasets which use LSUBHH and OPN as primary identifiers, such as household-member-and-child-level, transfer-to-child-level and transfer-from-child-level files, it is essential to use KSUBHH to distinguish other persons.

Sometimes records with the same HHID and OPN will be separate reports about the same person. For example, see the example using 2000 data Couple with Children and Siblings Divorces, where a couple with children divorces; the record where HHID is 890121, LSUBHH is 1, and OPN is 101 is the report about the child from the mother, and the record where HHID is 890121, LSUBHH is 2, and OPN is 101 is the report about the same child from the father.

In addition, there are instances within the Section F sibling-level file where the same sibling may have follow up questions from both respondents. This results from some ambiguity involving sibling
relationships to each respondent in a household. It is not always known, or always clarified whether a sibling is a blood sibling or a sibling in-law. Use of HHID and LSUBHH to merge each record in the H08PR_SB file to each line in the H08F_SB file, will result in a match to each record. Using the PN will make each line unique.

At other times records with the same HHID and OPN will be reports about different persons. For example, see the example using 2000 data Couple Divorces, One Respondent Remarries, Both Split-off Households Have New Members, where a couple divorces, one respondent remarries, and both split-off households have new members. In this case, the record where HHID is 901231, LSUBHH is 2, and OPN is 151 is for the original wife's mother, while the record where HHID is 901231, LSUBHH is 1, and OPN is 151 is for the original 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 H08core.zip.

The individual .zip files for separate download are:
Data file
H08da. zip containing data files.
Program statement files
H08sas.zip containing SAS data descriptors.
H08sps.zip containing SPSS data descriptors. H08sta.zip containing STATA data descriptors.

Documentation files
H08cb.zip containing the codebook. H08qn.zip containing the questionnaire. H08dd.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 data descriptor files. If you use a different structure, just change the directory references in the program statement files.

```
Directory
c:\hrs2008
c:\hrs2008\codebook
c:\hrs2008\data
c:\hrs2008\qnaire
c:\hrs2008\sas
c:\hrs2008\spss
c:\hrs2008\STATA
```

Contents

Files downloaded from Web site Unzipped files from H08cb.zip
Unzipped files from H08da.zip
Unzipped files from H08qn.zip
Unzipped files from H08sas.zip
Unzipped files from H08sps.zip
Unzipped files from H08sta.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 39 .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 H08A_R.SAS go with the H08A_R.DA data file.

6A. Using the Files with SAS
In order to create a SAS system file for a particular dataset, two file types must be present:
.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: \hrs2008\sas" and the data file is located in "c: \hrs2008\data", you can run the *. SAS file as is. A SAS system file (*.SD2 or *.SAS7BDAT) will be saved to the "c:\hrs2008\sas" directory.

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 program.

## 6B. Using the Files with SPSS

In order to create an SPSS system file for a particular dataset, two file types must be present:
.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: \hrs2008\spss" and the data file is located in "c:\hrs2008\data", you can run the *.SPS file as is. An SPSS system file (*.SAV) will be saved to the "c:\hrs2008\spss" directory.

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

In order to use STATA with a particular dataset, the following three file types must be present:
.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, called "do files", which are used 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:\hrs2008\STATA" and the data file is located in "c:\hrs2008\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, go to Edit, then Select All, go to Format, Change Case, and select lowercase.

## 7. Documentation

There are several types of documentation available for use with the 2008 HRS Core (Final, Version 3.0) data release. These include a codebook, a list of "Master Codes" and the 2008 box-and-arrow questionnaire. In addition, 2008 variables have been added to the Online Concordance.

## 7A. Codebook

The HRS 2008 Codebook is provided as a series of 39 individual ASCII text files, as well as a single 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.

## 7A1. Variable Names

Variable names begin with a letter designating the wave of data collection (L for 2008), followed by the section letter, and numbers after the section letter. For example, LC001 where L=2008, C=Section C (physical health), and 001 is the variable number. Variables from the preload section contain either "X" or "Z" as prefix letters. The "X" prefix signifies a variable that is updated by data collected in later sections of the questionnaire, whereas the " $Z$ " prefix indicates a variable with preloaded data that were not changed by subsequent answers to questions. For example, LZ077_(R PREV WAVE R FIN/FAM TYPE) signifies the Family/Financial Type assigned from the previous wave's interview, whereas LX007_(R RESP FAM/FIN TYPE - UPDATED) indicates the current wave Family/Financial Type, which was updated based on responses in the 2008 interview.

## 7A1a. 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) + (M) + (mention number). For example, LN219M1 through LN219M5 are 2008 variables from Section $N$ with one through 5 mentions.

Variable names for multiple mentions to questions within a loop can take one of two forms:

The first form is: (wave prefix) + (section letter) + (variable number) + (underscore) + (loop iteration) + (M) + (mention number). For example, LQ178_1M1, is a 2008 variable from Section Q, in the first iteration of the loop, and the first mention.

The second form is: (wave prefix) + (section letter) + (variable number) + (underscore) + (loop iteration) + (letter designating mention number). For example, LN049_1A, is a 2008 variable from Section N, in the first iteration of the loop, and the first mention.

Simple looped variables, which are not a multiple mention have an underscore (_)in their name and a suffix that designates the loop, for example LN025_1 is a 2008 variable from Section N, in the first iteration of the loop.

For variables that have a "W" right after the section designator, the variable names are slightly different. Variable names for multiple mentions of this type take the form: (wave prefix) + (section letter) + (W) + (variable number) + (letter designating loop iteration) + (mention number). For example, LKW097A1 is a 2008 variable from Section K, in the first iteration of the loop, and the first mention. Other non-multiple mention variables of this type are named with the letter designating the loop iteration. For example, LKW002A is a 2008 variable from Section $K$ 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.

## 7A1b. 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. Names, addresses, days of birth, information on geographical location and similar variables are not included in publicly released files. Some of these variables may be made available to analysts as restricted data. See our Web site for details.

Geographical locations are recoded to a level no more detailed than that of the U.S. Census Region and Division. Data on the highest educational degree earned have been grouped together to increase cell sizes. In prior waves, the occupation and industry data was coded using the 1980 Census Codes. However, in the 2008 release these data have been coded using the original three-digit 2000 U.S. Census codes.

The names of variables that were masked for confidentiality end in the capital letter "M"; for example, LX026M (1ST ADDRESS STATE - MASKED)
and LB024M (FATHER USUAL OCCUPATION - MASKED) are both masked variables.

## 7B. Master Codes

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

## 7C. 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 2008 HRS data were collected using a CAI program, a traditional hard-copy questionnaire was not produced as part of the data collection phase. However, we have provided a version of the traditional box-and-arrow questionnaire to help document the asking sequence of the questions.

## 7D. Other Types of Documentation

In addition to this document, the codebook, the Master Codes, and the Box and Arrow Questionnaire, three additional types of documentation are available.

## 7D1. 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.pd

## 7D2. Cross-Wave Tracker File

The HRS tracker file is created to facilitate the use of HRS data within and across waves. The file contains one record for every person who was ever eligible to be interviewed in any wave. Each record contains basic demographic information, interview status, and if, when and how an interview was conducted in each wave. Also included are cross-sectional weights and information on inter-respondent relationships, which are vital to almost all substantive analyses of the HRS data. The current version of the tracker file (Tracker 2008, Version 1.0) covers all types of interviews (core, exit, and post-exit) through HRS 2008. Please see the Cross-wave Tracker File Data Description for a more detailed description.

## 8. Additional Notes

The following are miscellaneous additional notes regarding HRS 2008 Final Data Release, Version 3.0. If we become aware of additional issues, they will be posted on our Web site in the Data Alerts section.

8A. 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, some questions of just a designated 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 84 households that had no family respondent and 55 households had no financial respondent. 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:

LPN_FAM - 2008 FAMILY RESP PERSON NUMBER
LPN_FIN - 2008 FINANCIAL RESP PERSON NUMBER

## 8B. Unfolding Bracket Variables and Imputations

Typically, a series of unfolding bracket questions follow a lead-in question asking for an amount. If a valid amount was not given, a series of "unfolding" questions were asked. The manner in which the unfolding questions were programmed using Blaise for the 2002 through 2008 surveys is different from the way it was programmed in SurveyCraft for the 1993 through 2000 surveys. This change was transparent to the respondents, since exactly the same questions were asked with the new software; but it did have an implication for the data that were stored and subsequently released.

Instead of storing the response to each unfolding question as was done on waves prior to 2002, three summary variables were generated for HRS 2002 and beyond, a 'MINIMUM', a 'MAXIMUM', and a 'RESULT' variable. The minimum and maximum values are stored based on the answers to the unfolding questions. If the last answer a respondent gave in an unfolding sequence was either "Don't Know" or "Refused," that information is stored in the 'RESULT' variable. If the Respondent said "more than" to the unfolding question with the highest value, then the maximum value was stored as 99999996. Greater than Maximum Breakpoint.

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 LZ041 and the unfolding sequence in Section $Q$ that uses the random entry point from LZ041.

Preload Variable from the data file H08pr_h:
LZ041 UNFOLD ASSIGN - SELF EMPLOYMENT INCOME
Section: PR Level: Household Type: Numeric Width: 1 Decimals: 0 Ref: HH.X041_UnfSEmpInc_V

UNFOLD ASSIGN - SELF EMPLOYMENT INCOME

3985 1. RANDOM ASSIGNMENT1
3947 2. RANDOM ASSIGNMENT2
3965 3. RANDOM ASSIGNMENT3
Unfolding Series from Section Q that uses LZ041 to assign an entry point:

```
LQ016 R INCOME FROM SELF EMPLOYMENT - MIN
    Section: Q Level: Household Type: Numeric Width: 8 Decimals: 0
    Ref: SecQ.RIncome.Q016_
    Unfolding Procedure: 3Up, 2Up1Down, 1Up2Down (Min)
    Did it amount to ...
    Breakpoints: 5000/10000/25000/100000
    RANDOM ENTRY POINT ASSIGNMENT [1 ($5,000)] or [2 ($10,000)] or
    [{NOT 1 and NOT 2} ($25,000)] AT LZ041
```

    125 0. Value of Breakpoint
    3 5000. Value of Breakpoint
    12 5001. Value of Breakpoint
    6 10000. Value of Breakpoint
    21 10001. Value of Breakpoint
    2 25000. Value of Breakpoint
    21 25001. Value of Breakpoint
    2 100000. Value of Breakpoint
    11 100001. Value of Breakpoint
    11694 Blank. INAP (Inapplicable); Partial Interview
    LQ017 R INCOME FROM SELF EMPLOYMENT - MAX
Section: Q Level: Household Type: Numeric Width: 10 Decimals: 0
Ref: SecQ.RIncome.Q017_
34 4999. Value of Breakpoint
3 5000. Value of Breakpoint
12 9999. Value of Breakpoint
6 10000. Value of Breakpoint
17 24999. Value of Breakpoint
2 25000. Value of Breakpoint
15 99999. Value of Breakpoint
2 100000. Value of Breakpoint
112 99999996. Greater than Maximum Breakpoint
11694 Blank. INAP (Inapplicable); Partial Interview
LQ018 R INCOME FROM SELF EMPLOYMENT - RESULT
Section: Q Level: Household Type: Numeric Width: 2 Decimals: 0
Ref: SecQ.RIncome.Q018_
22
82
98. DK (Don't Know)
99. RF (Refused)
11793
Blank. INAP (Inapplicable); Partial Interview

## 8C. Modules for the 2008 Data Collection

There are 10 modules for 2008 HRS. The module data can be found in the file H08V_R. Topical areas of the modules include:

Module 1: Verbal Analogies
Module 2: Annuities and Lump Sum Payments

Module 3: Breast and Prostate Cancer Screening
Module 4: Weight History
Module 5: Quality of Care
Module 6: Coping Strategies
Module 7: Transfers
Module 8: Financial Sophistication and Investment Decision Making
Module 9: Retirement Behavior
Module 10: Dental Health and Access to Care and Utilization

## 8C1. Description of Verbal Analogies (Module 1)

Verbal Analogies measures the respondent's ability to reason using lexical knowledge. The task requires listening to three words of an analogy and then completing the analogy with an appropriate fourth word. This test of verbal analogies was adapted from the WoodcockJohnson III test battery. The sample for this module was a random subsample of the self-respondent sample. More detail about the rationale for, development of, and administration details of this task is available in the Ofstedal, Fisher, \& Herzog (2005) HRS Cognition Documentation Report

Variables available for this module include the overall Verbal Analogies score (LVASCORE), the starting point within the module (LVASTART), the total number of items asked (LVAASK), the number correct (LVACRRCT), and the number incorrect (LVAWRONG). LVASTART has a value of 1 or 2 . The value 1 is equal to 4 in the original WJ III and the value 2 is equal to 8 in the original WJ III (which has three sample items, $A, B, \& C$, and 15 test items arranged in order of item difficulty from item 1 to item 15). The starting point for each respondent was determined by level of education such that respondents with at least some college education were initially asked a more difficult test item than respondents with 12 or fewer years of education.

The overall Verbal Analogies score is a standardized score. The full information in the pattern of responses provided by each respondent was used to create a score on the $W$-scale (logit metric) based on the scoring method for the original WJ III test. This variable, called LVASCORE, represents the respondent's performance on the task where higher scores indicate higher performance on the task. The $W$ scale is a transformation and combination of the Rasch log ability and easy scales. Please refer to the HRS Cognition Documentation Report for more information.

## 8D. Explanation of the Difference between Tracker and 2008 Final Core Data

There are some areas where the Tracker File and the 2008 Final release data are different. Below is a list of these situations.

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 noninterviewed 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. See the Cross-wave Tracker File Data Description for a more complete explanation 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.

## 8E. Changes in Data because of Respondent Comments

The interviewer recorded comments the respondent made during the course of the interview. HRS staff reviewed these comments for selected questions (e.g., other specify, amount and per questions). The original answer was changed if it was determined that the comment changed the substance of the recorded answer. Occasionally additional codes were added to an existing code frame. The text of added codeframes appears in the codebook in sentence case. Double reporting of income or assets in Section Q was corrected wherever possible.

When a change was made as a result of the comment review process, inconsistencies with subsequent variables may result. A limited number of changes for consistency were made to immediately subsequent variables within the section. No consistency changes were made to variables in other sections. If any comment change affected a subsequent branchpoint, the branchpoint was not changed.

## 8E1. Changes to 2008 Core, Version 3.0

SAQ Eligibility:
The SAQ eligibility indicator has been updated to reflect changes in SAQ eligibility rules across waves. There are now two indicators. The first indicator (LLBRTYPE) identifies aspects of the respondent and/or interview that affect eligibility (enhanced face-to-face status, mode of interview, proxy and nursing home status). This indicator can be used to identify a comparable SAQ sample across all waves. The second indicator (LLBELIG) is a simple binary variable that identifies whether or not the respondent was eligible for the SAQ in that wave, given the eligibility rules that were in operation at the time.

The SAQ completion indicator (LLBCOMP) is very similar to the previous version. An SAQ is considered to be complete if one or more substantive variable contains non-missing data. One change from the previous version is that respondents who were not eligible for the SAQ but who
completed it anyway are now assigned a completion status on the LBCOMP variable. In the past they were assigned missing on this variable. The number of such cases is very small.

More information on the SAQ eligibility rules and methodology is provided in the SAQ documentation report at this link: http://hrsonline.isr.umich.edu/sitedocs/userg/HRS20062010SAQdoc.pdf

## 8F. 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. From that point on every household will repeat the enhanced face-to-face portion every other 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 2008, as in 2006, the Leave-Behind Questionnaire was incorporated into the Enhanced Face-to-Face Interview. The Leave-Behind Questionnaire administered in 2006 and 2008 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. This is a modified and expanded version of the 2004 Participant Lifestyle Questionnaire, which was one of two Leave-Behind Questionnaires administered in the 2004 wave.

## Physical Performance Measures and Biomarkers (Section I_R)

In 2004, HRS administered a set of physical measures to a random subsample of about 3,300 respondents. In 2006, this effort was expanded in terms of both the size of the sample covered (one-half of the full sample for 2006, and the other half in 2008) and the measurements conducted. The specific measures included in the 2008 wave are:

Blood pressure
Breathing test (peak flow)
Grip strength
Timed walk (8 ft.)
Balance tests (semi-tandem, side-by-side, full tandem)
Height
Weight
December 2014, Version 3.0

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-toface 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. The Physical Measures Booklet contains the consent forms, as well as instructions and protocols for all of the measurements.

## 8G. Summary of Data Model (DM) Changes during 2008 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. Each data file contains the variable LVDATE, which indicates which version of the data model was used to interview the household.

## Changes Incorporated in Version 2

## Section PR:

LX004_R, LX067_R (R MONTH AND YEAR BORN): The program was out of sync with preloaded data so that most Respondents were getting re-asked date of birth. This has been fixed so that only those Respondents whose values are missing or have some discrepancy in their birth date will be asked.

## Section I:

LI860, LI865, LI870 (BLOOD PRESSURE): Range changed from 0-140 to 40140. Entries outside this range will trigger a signal for the interviewer.

LI841 (WEIGHT POUNDS MEASURMENT): Range added for weight measurement: 60-310. Entries outside this range will trigger a signal for the interviewer.

LI907 (WAIST MEASURMENT): Range added for waist measurement: 20-75.
Entries outside this range will trigger a signal for the interviewer.

## Section J:

LJW008, LJW013, LJW018, LJW019, LJW056: Too many Respondents were being skipped out of these questions. Logic was changed to correct this.

LJ664: Respondents who reported DK or RF in LJ812 (\% OF PENSION FUNDS INVESTED IN STOCKS) were skipped out of LJ664 (MONEY INVESTED IN COMPANY STOCK). This was fixed so that only Respondents who report $0 \%$ in LJ812 skip LJ664.

## Section P:

LP161: The question text was changed. Old question text: "(If you think there is a large chance that you will be working full-time, ) please give your best estimate of what that chance is." New question text:
"(If you think there is a large chance that you will live to [AGE FILL - same as for P159] ) please give your best estimate of what that chance is."

LP106-LP107: Respondents who answered '0' in LP028 were skipped out of these questions. This has been fixed.

## Section V:

## (Module 2)

LV052: Changed question text in unfolding variables following LV051 from "Did it amount to..." to "Would it be..."

## (Module 9)

LV455: Respondents who are currently receiving (or who DK if they are receiving) SS benefits (LV479 = 1 or 3) should skip LV455. The wrong variable was used in the logic, so Respondents who were currently working for pay were the ones being skipped out of LV455. This has been fixed.

LV459-LV463 were defined as temporary variables and, thus, not saved. This has been changed so that these fields will appear in the data.

LV466: Original question text for one version of the question was missing "an inheritance totaling" at the end. The question now reads:

IF R SAID THERE IS A CHANCE OF LEAVING AN INHERITANCE (\{P059 or P006 or P005\} NOT EMPTY):
You said that you would consider spending down wealth faster [after retirement/] in response to a 30 percent cut in Social Security benefits.

In that case, including property and other valuables that you might own, what are the chances that you (and your[husband/wife/partner]) would leave an inheritance totaling

```
IF P059 NOT EMPTY: $500,000 or more?
IF P006 NOT EMPTY: $100,000 or more?
IF P005 NOT EMPTY: $10,000 or more?
```

LV469: Two changes were made to this field: 1) The code frame was expanded to include additional options (red text below indicates changes); 2) Changed to a multiple mention:
(Have you ever contacted the Social Security Administration to learn about your Social Security benefits?)

Why not?
IWER: Enter all that apply.

1. It has never occurred to me/It's too far in the future
2. I did not know how to do it
3. I did not have time
4. I had enough information/I had no need for information
5. I did not think they had useful information
6. I got information from other sources/Someone else checked for me.
7. Other (specify)

LV460, LV464, LV477: Field width changed from 2 to 3 to allow 98 and 99 as valid entries; ranges also changed.

## Changes Incorporated in Version 3

## Section H:

LH301-LH325: These variables were added to address mortgage/housing market crisis.

## Section Q:

LQ403: Respondents who reported DK in LQ402 (MONTH HH STARTED RECEIVING F00D STAMPS) were erroneously skipped over LQ403 (YEAR). This was changed so that RF is the only answer in LQ402 that results in skipping LQ403.

## Section T:

LT006: Non-family respondents were skipped over this question because the variable for \# grandchildren (LE046), which is used to direct flow for LT006, is missing for non-family respondents. This has been changed so that LE046 is assigned from preload for non-family respondents.

## Section V:

(Module 6)
LV270, LV272, LV274, LV276, LV278, LV280, LV282, LV284: Changed code value from 5.NOT AT ALL to 4.NOT AT ALL.
(Module 9)
LV463: This question was being skipped for respondents who reported '2' in LV461. It was corrected so that it is now asked of everyone who gets LV461.

## Section W:

LW351-LW367: These variables were added to address mortgage/housing market crisis.

## Changes Incorporated in Version 4

## Section H:

LH024, LH170: Added interview instruction, 'Do not include reverse mortgages.'

## Section M1:

LM026: Corrected fill in code 2 so that it references and shows data from both places in Section $J$ where employer name is collected, instead of just one place.

## Section Q:

LQ084: The Living Proxy version of the question text did not match the core wording. Removed the phrase "income from" in the second sentence so it now reads: "Are you currently receiving any Social Security income?"

## Section W:

LW359: Added code category options (see bolded text) to the question text. The full text now reads:
"How likely is it that you will fall behind in your mortgage payments during the next 6 months -- is it very likely, somewhat likely, or not likely at
all?

## 9. Obtaining the Data

## 9A. 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.

## 9B. 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.

## 9C. 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 3050
P.O. Box 1248

Ann Arbor, MI (USA) 48106-1248
Alternately, you may contact us by e-mail at hrsquest@isr.umich.edu with "Attn: Papers and Publications" in the subject line.

## 10. If You Need to Know More

This document is intended to serve as a brief overview and to provide guidelines to using the 2008 HRS Core (Final, Version 3.0) 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.

## 10A. 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.

## 10B. 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: hrsquest@isr.umich.edu
Postal service:
Health and Retirement Study
The Institute for Social Research, Room 3050
The University of Michigan
P.O. Box 1248

Ann Arbor, MI 48106-1248
FAX: (734) 647-1186

## Appendix A

## 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

[^0]
## 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
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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.
Bot
h 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 exhusband'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)

## APPENDIX B

## 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:

```
Health Conditions - Categorical
Health Conditions - Alphabetical List
Occupation Codes
Industry Codes
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; metastisis angiosarcoma; carcinoma; myeloma/multiple myeloma; myelodysplastic syndrome
102. Tumors, cysts or growths (except 101); polyps; osteomyelitis; precancer; 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; subrreic karatosis; 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; fibromyositis; 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); cellulites; tendonitis (location not specified); temporomandibular joint syndrome (TMJ); trigeminial 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 presuure; blood pressure problems, not specified high or low
123. Stroke; cerebral hemorrhage or accident; hemotoma (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 agglutin disease; triglycerides or high triglycerides; toxoplasmosis; blood transfusion; sickle cell traite; bone marrow failure; factor VIII/factorVIII deficiency/elevated factor VIII ; thrombocytopenia; hemochromatosis;
125. Other circulatory problems; phlebitis, clots/blood clots, embolisms; varicose veins; hemorrhoids; low blood pressure; giant cell arteritis; hemotoma (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; lymphoedema; claudication, plumary hypertension; rheumatic fever; occult cerebral vascular malformation; bleeding (location not specified); blockage in lung; Rendu-Osler-Weber disease/syndrome

## Respiratory system conditions

131. Allergies; hayfever; 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
135. Other respiratory/breathing problems; tuberculosis; sarcoidosis; ventilitory insufficiency; pulmonary ideiopathic 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 disease; Hashimoto's disease
143. Cystic fibrosis
144. Nutritional problems; weight problems; eating disorders; high cholesterol; hypercholesterolemia; obesity; iron defiency; overweight; vitamin deficiency
145. Sugar problems, NFS; erratic blood sugar
146. 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; sillicates disease; stomach pains, ileostomy, dumping syndrome; gastroenteritis, Irritable Bowel Syndrome; diarrhaea; 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
166. Other neurological/sensory problems; headaches; migraines; dizziness; blackouts; brain damage, NFS (also use code 194 if available); meningitis; arachnoiditis; Bell's palsy; Charcot-MarieTooth 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 diaphgram; facial nueralga;
hydrocephalus; inclusive body myositis; spinal carebella 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
174. 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)
184. 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; catpalzy
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)
598. None, no health condition(s) mentioned 997. Other health condition
599. DK (Don't Know); NA (Not Ascertained)
600. RF (Refused)

## B2. Health Conditions - Alphabetical List

151. Abdominal adhesions
152. Acid Reflux
153. Acquired immunodeficiency syndrome (AIDS)
154. Acromegaly
155. Acute infectious diseases
156. Acute upper respiratory diseases/problems
157. ADD (attention deficit disorder)
158. Addison's disease
159. Adhesions (locatioin not specified)
160. Agoraphobia
161. AIDS (acquired immunodeficiency syndrome)
162. AIDS related complex (ARC)
163. Alcoholism
164. Allergies
165. Alopecia
166. Alpha-1 antitrypsin deficiency
167. ALS
168. Alzheimer's disease
169. Amputation of limbs
170. Amyloidosis
171. Amyotrophic lateral sclerosis
172. Anemia
173. Aneurysm, heart
174. Aneurysm (when not in heart or location not specified)
175. Angina
176. Angiosarcoma
177. Ankylosing spondylitis
178. Anxiety
179. Aplastic anemia
180. APLS Hughes syndrome
181. Appendectomy
182. Appendicitis
183. Arachnoiditis
184. ARC (AIDS related complex)
185. Arterial blockage
186. Arteries, hardening
187. Arteries, elasticity
188. Arteriosclerosis
189. Arthritis
190. Asbestos (in lungs)
191. Asthma
192. Atrial fibrillation
193. Attention deficit disorder (ADD)
194. Autism
195. Avascular necrosis / osteonecrosis
196. Back injuries (also use code 194 if available)
197. Back, bad
198. Balance problems
199. Barrett's esophagus
200. Bed sores
201. Bedridden
202. Behavioral problems
203. Bell's palsy
204. Benign hepatic hypertrophy
205. Benign tumors
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169. Benign tremors
154. Bile duct, blockage of
183. Bipolar disorder
183. Bipolar depression
171. Birth of child
139. Black lung
169. Blackouts
156. Bladder control problems
155. Bladder conditions (excluding 156)
159. Bleeding (location not specified)
159. Bleeding (of the digestive tract)
161. Blindness
129. Blockage in lung
154. Blockage of bile ducts
129. Blood clots
124. Blood disease
124. Blood disorders, specific
124. Blood disorders, NFS
122. Blood pressure problems (not specified high or low)
145. Blood sugar, erratic
124. Blood transfusion
119. Bone disease
124. Bone marrow failure
119. Bone spurs (location not specified)
119. Bones, broken/damaged (location not specified) from
    injuries/accidents (also use code 194 if available)
151. Bowel incontinence
151. Bowel, irritable
129. Brain aneurism
169. Brain damage, NFS (also use code 194 if available)
139. Breathing problems
133. Bronchitis
103. Bullous pemphigoid
103. Burns (also use code 194 if available)
111. Bursitis
121. Bypass surgery
129. Calcification of limbs
101. Cancer
101. Carcinoma
121. Cardiomyopathy
119. Carpal tunnel syndrome
195. Cataplexy
161. Cataracts
131. Celiac disease / celiac sprue (gluten intolerance)
119. Cellulitis
123. Cerebral hemorrhage
163. Cerebral palsy
169. Charcot-Marie-Tooth disease
171. Childbirth/pregnancy problems
171. Childbirth, hemorrhaging from
171. Childbirth, complications from
171. Childbirth
144. Cholesterol, high
119. Chromosome leak into the muscles
134. Chronic obstructive pulmonary disease (COPD)
596. Chronic fatigue
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129. Circulation problems
129. Circulatory system, other specific
152. Cirrhosis
129. Claudication
169. Closed head injury
129. Clots
124. Cold agglutin disease
193. Colds
151. Colitis
151. Colostomy
169. Coma
194. Concussions
194. Conditions/side effects due to surgery
164. Congenital speech defects
121. Congestive heart disease
161. Conjunctivitis
134. COPD (Chronic obstructive pulmonary disease)
121. Coronary
119. Costochondritis
119. CREST syndrome/limited scleroderma
151. Crohn's disease
143. Cystic fibrosis
155. Cystitis
116. Cystocele
102. Cysts
162. Deafness
114. Deformation of limbs
112. Deformation of back, neck, or spine
191. Dementia
193. Dengue fever
192. Dental conditions
183. Depression (chronic)
103. Dermatitis
161. Detached retina
141. Diabetes
153. Dialysis
151. Diarrhea
112. Disc, slipped
112. Disc, worn
151. Diverticulosis
169. Dizziness
165. Down syndrome
113. Drop foot
182. Drug addiction/abuse
182. Drug dependence
151. Dumping syndrome
113. Dupuytren's contracture
169. Dysautonomia
165. Dyslexia
179. Dysmenorrhea
162. Ear conditions, all
144. Eating disorders
103. Eczema
597. Edema
129. Elasticity of arteries
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124. Elevated factor VIII
125. Embolisms
126. Emphysema
127. Encephalopathy caused by liver problems
128. Endocarditis
129. Endocrinology syndrome
130. Endometriosis
131. Energy (low)
132. Enlarged spleen
133. Enteritis
134. Epilepsy
135. Episiotomy
136. Epstein-Barr virus
137. Erratic blood sugar
138. Esophagus torn, ruptured, bleeding
139. Eye conditions, NFS
140. Facial neuralgia
141. Factor VIII/factor VIII deficiency/elevated factor VIII
142. Failure to thrive in older adults
143. Familiar tremors
144. Fatigue (chronic); lack of energy/strength
145. Feeding tube
146. Female problems
147. Fever
148. Fibromyalgia
149. Fibromyositis
150. Fibrositis
151. Flu
152. Fungus in chest
153. Gallbladder, removal
154. Gallbladder conditions
155. Gallstones
156. Gangrene
157. Gastritis
158. Gastroenteritis
159. GERD (gastroesophageal reflux disease)
160. Giant cell arteritis
161. Gland problem
162. Glaucoma
163. Gluten intolerance
164. Goiter
165. Gout
166. Graft-versus host disease
167. Grave's disease
168. Growths
169. Guillain-Barre syndrome
170. Gum conditions
171. Gynecological problems, NFS
172. Hair loss
173. Hardening of arteries
174. Hashimoto's disease
175. Hay fever
176. Headaches
177. Hearing, loss of
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121. Heart aneurysm
121. Heart attack
121. Heart bypass surgery
121. Heart condition, NFS
121. Heart deformities, congenital
121. Heart failure
121. Heart murmurs
121. Heart valve replacement
121. Heart valve blockage
121. Heart valve prolapse
151. Heartburn
129. Hematoma, if not related to brain (or location not specified)
123. Hematoma, if related to brain
124. Hemochromatosis
124. Hemophilia
159. Hemorrhage
129. Hemorrhoids
152. Hepatitis
116. Hernia, hiatal
116. Hiatal hernia
141. High blood sugar
122. High blood pressure
144. High cholesterol
124. High triglycerides
113. Hip problem/replacement
196. HIV (human immunodeficiency virus) positive
131. Hives
101. Hodgkin's disease
149. Hormone problems
122. HTN (hypertension / high blood pressure)
196. Human immunodeficiency virus (HIV) positive
169. Hydrocephalus
144. Hypercholesterolemia
149. Hyperpituitarism
122. Hypertension / high blood pressure (HTN)
142. Hyperthyroidism
149. Hypoglycemia
124. Hypoplastic anemia
179. Hysterectomy
139. Idiopathic pulmonary fibrosis
151. Ileitis
151. Ileostomy
196. Immune system disorders
169. Inclusive body myositis
193. Infection (location not specified)
172. Infertility
595. Infirmity
193. Influenza
194. Injuries, accidental
189. Insomnia
159. Internal bleeding
159. Internal bleeding (of the digestive tract)
155. Interstitial cystitis
151. Intestinal adhesions
151. Intestinal conditions
151. Irritable bowel conditions
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144. Iron deficiency
152. Jaundice
153. Kidney failure (including dialysis)
153. Kidney removal
153. Kidney stones
113. Knee, bad/problem/replacement
194. Lacerations
164. Laryngectomy
165. Learning disabilities
113. Leg cramps
133. Legionnaire's disease
101. Leukemia
152. Liver conditions
119. Loss of calcium
163. Lou Gehrig's disease
149. Low blood sugar
596. Low strength
134. Lung problems (smoking related)
129. Lung, blockage in
119. Lupus
193. Lyme disease
129. Lymphoedema
101. Lymphoma
161. Macular degeneration
101. Malignant tumors
183. Mania
183. Manic depression
193. Measles
169. Medial nerve palsy
194. Medication, side affects from
101. Melanoma, removal
101. Melanoma
191. Memory loss
162. Meniere's disease
169. Meningitis
179. Menopause
179. Menstrual periods, painful
189. Mental health problem, vague
165. Mental impairment
189. Mental problems
165. Mental retardation
101. Metastisis
193. Methicillin-resistant staphylococcus aureus (MRSA)
121. MI (myocardial infarction)
169. Migraines
171. Miscarriage
117. Mitochondrial dystrophy
117. Mitochondrial myopathy
121. Mitral valve prolapse
191. Mixed cognitive disease
102. Mole removal
193. Mononucleosis
169. Motor neuron or motoneuron problems
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193. MRSA (methicillin-resistant staphylococcus aureus)
191. Multi-infarct dementia
121. Multiple infarctions
101. Multiple myeloma
163. Multiple sclerosis
193. Mumps
117. Muscular dystrophy
119. Myalgia
169. Myasthenia
169. Myasthenia gravis
101. Myelodysplastic syndrome
101. Myeloma / multiple myeloma
121. Myocardititis
121. Myocardial infarction (MI)
121. Myocardial ischemia
118. Myofascial pain syndrome
169. Myokymia
119. Myositis
195. Narcolepsy
595. Natural causes
112. Neck injuries (also use code 194 if available)
153. Nephritis
149. Nephrotic syndrome
119. Nerve, pinched (location not specified)
189. Nerves, bad
189. Nervous breakdown
189. Nervous condition
119. Neural muscular myositis
119. Neuritis
102. Neuroma
163. Neuropathy
189. Night wandering
101. Non-Hodgkin's lymphoma
996. None
144. Nutritional problems
144. Obesity
129. Occult cerebral vascular malformation
161. Ocular myasthenia gravis
595. Old age
111. Osteoarthritis
102. Osteomyelitis
119. Osteopenia
119. Osteoporosis
997. Other health condition
179. Ovarian problems
144. Overweight
103. Paget's disease
149. Pancreatitis
189. Panic attacks
115. Paralysis
169. Paralyzed diaphragm
183. Paranoia
149. Parathyroid problems
163. Parkinson's disease
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103. Pemphigus
163. Peripheral neurophy
151. Peritonitis
129. Phlebitis
119. Pinched nerve (location not specified)
149. Pituitary problems
113. Plantar fasciitis
139. Pleurisy
179. PMS (premenstrual syndrome)
133. Pneumonia
193. Polio (without mention of paralysis)
124. Polycythemia vera
124. Polycythemia
119. Polymyalgia
119. Polymyalgia rheumatica
119. Polymyositis
102. Polyps
119. Post-polio syndrome (without mention of paralysis)
183. Post-traumatic stress disorder (PTSD)
102. Pre-cancer
141. Pre-diabetic
171. Pregnancy/childbirth problems
179. Premenstrual syndrome (PMS)
149. Primary adrenal insufficient
169. Progressive supranuclear palsy (PSP)
173. Prostate conditions
173. PSA, high PSA
103. Psoriasis
169. PSP (progressive supranuclear palsy)
183. Psychological conditions
183. Psychosis
183. PTSD (post-traumatic stress disorder)
119. Pulled muscle; location not specified (also use code 194 if
available)
129. Pulmonary thrombosis
129. Pulmonary hypertension
129. Pulmonary embolism
139. Pulmonary idiopathic fibrosis
103. Rash, skin
129. Raynaud's disease
116. Rectocele
169. Reflex sympathetic dystrophy (RSD)
151. Reflux disease
111. Reiter's Syndrome
129. Rendu-Osler-Weber disease/syndrome
179. Reproductive organs, removal of (excluding cancer, tumors)
139. Respiratory failure, NFS
133. Respiratory pulmonary disease
133. Respiratory diseases, acute upper
169. Restless legs syndrome (RLS)
597. Retaining water/retaining fluids
161. Retina, torn
161. Retina, detached
171. RH factor
111. Rheumatism
111. Rheumatica
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121. Rheumatic heart disease
129. Rheumatic fever
169. RLS (restless legs syndrome)
103. Rosacea
113. Rotator cuff problems
169. RSD (reflex sympathetic dystrophy)
193. Rubella
139. Sarcoidosis
183. Schizophrenia
119. Sciatica/sciatic nerve problem
119. Scleroderma
112. Scoliosis
103. Seborrheic keratosis
163. Seizures
191. Senility
193. Sepsis
193. Septic shock
183. Severe psychological conditions
169. Shaky hands
169. Shingles
113. Shoulder problems
124. Sickle cell trait
124. Sickle cell anemia
194. Side affects from medication
194. Side effects/conditions due to surgery
151. Silicates disease
131. Sinus headaches
131. Sinus problems
131. Sinusitis
169. Sjogren's syndrome
103. Skin conditions
103. Skin ulcers
119. Skull bone injuries (also use code 194 if available)
194. Skull fracture
195. Sleep apnea
134. Smoking related lung problems
169. Spasmodic torticollis
164. Speech conditions, all
164. Speech impediment
112. Spina bifida
169. Spinal cerebellar ataxia
169. Spinal cord damage, from injuries/accident (also use code 194 if
available)
112. Spinal stenosis
157. Spleen conditions
157. Spleen, enlarged
119. Sprain; location not specified (also use code 194 if available)
112. Sprained back/neck (also use code 194 if available)
113. Sprained limb (also use code 194 if available)
131. Sprue / celiac sprue (gluten intolerance)
193. Staph infection
172. Sterilization
608. Stillbirth
151. Stomach conditions
151. Stomach pains
151. Stomach reflux
```

151. Stomach, removal
152. Strain; location not specified (also use code 194 if available)
153. Strength (low)
154. Strep throat
155. Stress/stress related problems
156. Stroke
157. Stuttering
158. Subdural hygroma
159. Subrreic karatosis
160. Sugar problems; NFS
161. Swallowing difficulty
162. Swelling, (location not specified)
163. Temporomandibular joint syndrome (TMJ)
164. Tendon damage; location not specified (also use code 194 if available)
165. Tendonitis (location not specified)
166. Tennis elbow
167. Thoracic outlet syndrome
168. Thrombocytopenia
169. Thyroid problems
170. TIA (transient ischemic attack)
171. Tinnitus
172. TMJ (temporomandibular joint syndrome)
173. Tonsillitis
174. Toxemia
175. Toxic shock
176. Toxoplasmosis
177. Transient ischemic attack (TIA)
178. Trigeminal neuralgia
179. Triglycerides / high triglycerides
180. Tubal ligation
181. Tuberculosis
182. Tubes tied
183. Tumor, malignant (or cancerous)
184. Tumor, NA whether malignant or benign
185. Tumors, benign
186. Ulcerative colitis
187. Ulcers (not further specified)
188. Ulcers, skin
189. Ulcers, stomach (peptic or duodenal)
190. Uncontrollable blood pressure
191. Upper motor neuron/motoneuron problems
192. Urinary infections
193. Urinary incontinence/loss/leakage
194. Urosepsis
195. Uveitis
196. Varicose veins
197. Vascular disease
198. Vascular necrosis
199. Vasectomy
200. Ventilatory insufficiency
201. Vertigo
202. Vestibular disorder
203. Virus, NFS
204. Vision problems, NFS
205. Vitamin deficiency
206. Warts
207. Weight problems

## C. 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

1. Chief Executives
2. General and Operations Managers
3. Legislators
4. Advertising and Promotions Managers
5. Marketing and Sales Managers
6. Public Relations Managers
7. Administrative Services Managers
8. Computer and Information Systems Managers
9. Financial Managers
10. Human Resources Managers
11. Industrial Production Managers
12. Purchasing Managers
13. Transportation, Storage, and Distribution Managers
14. Farm, Ranch, and Other Agricultural Managers
15. Farmers and Ranchers
16. Constructions Managers
17. Education Administrators
18. Engineering Managers
19. Food Service Managers
20. Funeral Directors
21. Gaming Managers
22. Lodging Managers
23. Medical and Health Services Managers
24. Natural Science Managers
25. Postmasters and Mail Superintendents
26. Property, Real Estate, and Community Association Managers
27. Social and Community Service Managers
28. Managers, All Other

BUS Business Operations Specialists
50. Agents and Business Managers of Artists, Performers, and Athletes
51. Purchasing Agents and Buyers, Farm Products
52. Wholesale and Retail Buyers, Except Farm Products
53. Purchasing Agents, Except Wholesale, Retail, and Farm Products
54. 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
70. Logisticians
71. Management Analysts
72. Meeting and Convention Planners
73. Other Business Operations Specialists

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FIN Financial Specialists
80. Accountants and Auditors
81. Appraisers and Assessors of Real Estate
82. Budget Analysts
83. Credit Analysts
84. Financial Analysts
85. Personal Financial Advisors
86. Insurance Underwriters
90. Financial Examiners
91. Loan Counselors and Officers
93. Tax Examiners, Collectors, and Revenue Agents
94. Tax Preparers
95. 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
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171. Atmospheric and Space Scientists
172. Chemists and Materials Scientists
173. Environmental Scientists and Geoscientists
174. Physical Scientists, All Other
175. Economists
176. Market and Survey Researchers
177. Psychologists
178. Sociologists
179. Urban and Regional Planners
180. Miscellaneous Social Scientists and Related Workers
181. Agricultural and Food Science Technicians
182. Biological Technicians
183. Chemical Technicians
184. Geological and Petroleum Technicians
185. Nuclear Technicians
186. 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
203. Clergy
204. Directors, Religious Activities and Education
205. 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
221. Preschool and Kindergarten Teachers
222. Elementary and Middle School Teachers
223. Secondary School Teachers
224. Special Education Teachers
225. Other Teachers and Instructors
226. Archivists, Curators, and Museum Technicians
227. Librarians
228. Library Technicians
229. Teacher Assistants
230. Other Education, Training, and Library Workers

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

260. Artists and Related Workers
261. Designers
262. Actors
263. Producers and Directors
264. Athletes, Coaches, Umpires, and Related Workers
265. Dancers and Choreographers
266. Musicians, Singers, and Related Workers
267. Entertainers and Performers, Sports and Related Workers, All Other
268. Announcers
269. News Analysts, Reporters and Correspondents
270. Public Relations Specialists
271. Editors
272. Technical Writers
273. Writers and Authors
274. Miscellaneous Media and Communication Workers
275. Broadcast and Sound Engineering Technicians and Radio Operators
276. Photographers
277. Television, Video, and Motion Picture Camera Operators and Editors
278. 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
316. Physical Therapists
320. Radiation Therapists
321. Recreational Therapists
322. Respiratory Therapists
323. Speech-Language Pathologists
324. Therapists, All Other
325. Veterinarians
326. Health Diagnosing and Treating Practitioners, All Other
330. Clinical Laboratory Technologists and Technicians
331. Dental Hygienists
332. Diagnostic Related Technologists and Technicians
340. Emergency Medical Technicians and Paramedics
341. Health Diagnosing and Treating Practitioner Support Technicians
350. Licensed Practical and Licensed Vocational Nurses
351. Medical Records and Health Information Technicians
352. Opticians, Dispensing
353. Miscellaneous Health Technologists and Technicians
354. Other Healthcare Practitioners and Technical Occupations
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## HLS Healthcare Support Occupations

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

## PRT Protective Service Occupations

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

## EAT Food Preparation and Serving Occupations

400. Chefs and Head Cooks
401. First-Line Supervisors/Managers of Food Preparation and Serving Workers
402. Cooks
403. Food Preparation Workers
404. Bartenders
405. Combined Food Preparation and Serving Workers, Including Fast Food
406. Counter Attendant, Cafeteria, Food Concession, and Coffee Shop
407. Waiters and Waitresses
408. Food Servers, Non-restaurant
409. Dining Room and Cafeteria Attendants and Bartender Helpers
410. Dishwashers
411. Host and Hostesses, Restaurant, Lounge, and Coffee Shop
412. 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
431. First-Line Supervisors/Managers of Personal Service Workers
432. Animal Trainers
433. Nonfarm Animal Caretakers
434. Gaming Services Workers
435. Motion Picture Projectionists
436. Ushers, Lobby Attendants, and Ticket Takers
437. Miscellaneous Entertainment Attendants and Related Workers
438. Funeral Service Workers
439. Barbers
440. Hairdressers, Hairstylists, and Cosmetologists
441. Miscellaneous Personal Appearance Workers
442. Baggage Porters, Bellhops, and Concierges
443. Tour and Travel Guides
444. Transportation Attendants
445. Child Care Workers
446. Personal and Home Care Aides
447. Recreation and Fitness Workers
448. Residential Advisors
449. 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
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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
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```
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
757. Signal and Track Switch Repairers
758. Helpers--Installation, Maintenance, and Repair Workers
759. 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
776. Bakers
777. Butchers and Other Meat, Poultry, and Fish Processing Workers
778. Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
779. Food Batchmakers
780. Food Cooking Machine Operators and Tenders
781. Computer Control Programmers and Operators
782. Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
783. Forging Machine Setters, Operators, and Tenders, Metal and Plastic
784. Rolling Machine Setters, Operators, and Tenders, metal and Plastic
785. Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
786. Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
787. Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
788. Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
789. Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
790. Machinists
791. Metal Furnace and Kiln Operators and Tenders
792. Model Makers and Patternmakers, Metal and Plastic
793. Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic
794. Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
795. Tool and Die Makers
796. Welding, Soldering, and Brazing Workers
797. Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
798. Lay-Out Workers, Metal and Plastic
799. Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
800. Tool Grinders, Filers, and Sharpeners
801. Metalworkers and Plastic Workers, All Other
802. Bookbinders and Bindery Workers
803. Job Printers
804. Prepress Technicians and Workers
805. Printing Machine Operators
806. Laundry and Dry-Cleaning Workers
807. Pressers, Textile, Garment, and Related Materials
```
832. Sewing Machine Operators
833. Shoe and Leather Workers and Repairers
834. Shoe Machine Operators and Tenders
835. Tailors, Dressmakers, and Sewers
836. Textile Bleaching and Dyeing Machine Operators and Tenders
840. Textile Cutting Machine Setters, Operators, and Tenders
841. Textile Knitting and Weaving Machine Setters, Operators, and
Tenders
842. Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
843. Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
844. Fabric and Apparel Patternmakers
845. Upholsterers
846. Textile, Apparel, and Furnishings Workers, All Other
850. Cabinetmakers and Bench Carpenters
851. Furniture Finishers
852. Model Makers and Patternmakers, Wood
853. Sawing Machine Setters, Operators, and Tenders, Wood
854. Woodworking Machine Setters, Operators, and Tenders, Except Sawing
855. Woodworkers, All Other
860. Power Plant Operators, Distributors, and Dispatchers
861. Stationary Engineers and Boiler Operators
862. Water and Liquid Waste Treatment Plant and System Operators
863. Miscellaneous Plant and System Operators
864. Chemical Processing Machine Setters, Operators, and Tenders
865. Crushing, Grinding, Polishing, Mixing, and Blending Workers
871. Cutting Workers
872. Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
873. Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
874. Inspectors, Testers, Sorters, Samplers, and Weighers
875. Jewelers and Precious Stone and Metal Workers
876. Medical, Dental, and Ophthalmic Laboratory Technicians
880. Packaging and Filling Machine Operators and Tenders
881. Painting Workers
883. Photographic Process Workers and Processing Machine Operators
884. Semiconductor Processors
885. Cementing and Gluing Machine Operators and Tenders
886. Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
890. Cooling and Freezing Equipment Operators and Tenders
891. Etchers and Engravers
892. Molders, Shapers, and Casters, Except Metal and Plastic
893. Paper Goods Machine Setters, Operators, and Tenders
894. Tire Builders
895. Helpers--Production Workers
896. Production Workers, All Other
```


## TRN Transportation and Material Moving Occupations

```
900. Supervisors, Transportation and Material Moving Workers
903. Aircraft Pilots and Flight Engineers
904. Air Traffic Controllers and Airfield Operations Specialists
911. Ambulance Drivers and Attendants, Except Emergency Medical Technicians
912. Bus Drivers
913. Driver/Sales Workers and Truck Drivers
```

```
914. Taxi Drivers and Chauffeurs
915. Motor Vehicle Operators, All Other
920. Locomotive Engineers and Operators
923. Railroad Brake, Signal, and Switch Operators
924. Railroad Conductors and Yardmasters
926. Subway, Streetcar, and Other Rail Transportation Workers
930. Sailors and Marine Oilers
931. Ship and Boat Captains and Operators
933. Ship Engineers
934. Bridge and Lock Tenders
935. Parking Lot Attendants
936. Service Station Attendants
941. Transportation Inspectors
942. Other Transportation Workers
950. Conveyor Operators and Tenders
951. Crane and Tower Operators
952. Dredge, Excavating, and Loading Machine Operators
956. Hoist and Winch Operators
960. Industrial Truck and Tractor Operators
961. Cleaners of Vehicles and Equipment
962. Laborers and Freight, Stock, and Material Movers, Hand
963. Machine Feeders and Off bearers
964. Packers and Packagers, Hand
965. Pumping Station Operators
972. Refuse and Recyclable Material Collectors
973. Shuttle Car Operators
974. Tank Car, Truck, and Ship Loaders
975. Material Moving Workers, All Other
MIL Military Specific Occupations
980. Military Officer Special and Tactical Operations Leaders/Managers
981. First-Line Enlisted Military Supervisors/Managers
982. Military Enlisted Tactical Ops and Air/Weapons Specialists and
    Crew members
983. Military, Rank Not Specified (Census only)
999. DK; NA; Don't know; Not ascertained
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Source: U.S. Census Bureau, Demographic Surveys Division, Created: August 72001

## D. 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
17. Crop production
18. Animal production
19. Forestry except logging
27. Logging
28. Fishing, hunting, and trapping
29. Support activities for agriculture and forestry

## MINING

37. Oil and gas extraction
38. Coal mining
39. Metal ore mining
40. Nonmetallic mineral mining and quarrying
41. Not specified type of mining
42. Support activities for mining

## UTILITIES

57. Electric power generation transmission and distribution
58. Natural gas distribution
59. Electric and gas and other combinations
60. Water, steam, air-conditioning, and irrigation systems
61. Sewage treatment facilities
62. Not specified utilities

## CONSTRUCTION

77. Construction

## MANUFACTURING

107. Animal food, grain, and oilseed milling
108. Sugar and confectionery products
109. Fruit and vegetable preserving and specialty food Manufacturing
110. Dairy product manufacturing
111. Animal slaughtering and processing
112. Retail bakeries
113. Bakeries except retail
114. Seafood and other miscellaneous foods n.e.c.
115. Not specified food industries
116. Beverage manufacturing
117. Tobacco manufacturing
118. Fiber, yarn, and thread mills
119. Fabric mills, except knitting
120. Textile and fabric finishing and coating mills
121. Carpets and rugs manufacturing
122. Textile product mills except carpets and rugs
123. Knitting mills
124. Cut and sew apparel manufacturing
125. Apparel accessories and other apparel manufacturing
126. Footwear manufacturing
127. Leather tanning and products, except footwear manufacturing
128. Pulp, paper, and paperboard mills
129. Paperboard containers and boxes
130. Miscellaneous paper and pulp products
131. Printing and related support activities
132. Petroleum refining
133. Miscellaneous petroleum and coal products
134. Resin, synthetic rubber and fibers, and filaments manufacturing
135. Agricultural chemical manufacturing
136. Pharmaceutical and medicine manufacturing
137. Paint, coating, and adhesives manufacturing
138. Soap, cleaning compound, and cosmetic manufacturing
139. Industrial and miscellaneous chemicals
140. Plastics product manufacturing
141. Tire manufacturing
142. Rubber products, except tires, manufacturing
143. Pottery, ceramics, and related products manufacturing
144. Structural clay product manufacturing
145. Glass and glass product manufacturing
146. Cement, concrete, lime, and gypsum product manufacturing
147. Miscellaneous nonmetallic mineral product manufacturing
148. Iron and steel mills and steel product manufacturing
149. Aluminum production and processing
150. Nonferrous metal, except aluminum, production and processing
151. Foundries
152. Metal forgings and stampings
153. Cutlery and hand tool manufacturing
154. Structural metals and tank and shipping container manufacturing
155. Machine shops; turned product; screw nut and bolt manufacturing
156. Coating, engraving, heat treating and allied activities
157. Ordnance
158. Miscellaneous fabricated metal products manufacturing
159. Not specified metal industries
160. Agricultural implement manufacturing
161. Construction mining and oil field machinery manufacturing
162. Commercial and service industry machinery manufacturing
163. Metalworking machinery manufacturing
164. Engines, turbines, and power transmission equipment manufacturing
165. Machinery manufacturing, n.e.c.
166. Not specified machinery manufacturing
167. Computer and peripheral equipment manufacturing
168. Communications, audio, and video equipment manufacturing
169. Navigation, measuring, electrometrical, and control instruments manufacturing
170. Electronic component and product manufacturing, n.e.c.
171. Household appliance manufacturing
172. Electrical machinery, equipment, and supplies manufacturing, n.e.c.
173. Motor vehicles and motor vehicle equipment manufacturing
174. Aircraft and parts manufacturing
175. Aerospace product and parts manufacturing
176. Railroad rolling stock manufacturing
177. Ship and boat building
178. Other transportation equipment manufacturing
179. Sawmills and wood preservation
180. Veneer, plywood, and engineered wood product manufacturing
181. Prefabricated wood buildings and mobile homes manufacturing
182. Miscellaneous wood product manufacturing
183. Furniture and fixtures
184. Medical equipment and supplies manufacturing
185. Toys, amusement, and sporting goods manufacturing
186. Miscellaneous manufacturing, n.e.c.
187. 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
410. Professional and commercial equipment and supplies Wholesalers
411. Metals and minerals, except petroleum, wholesalers
412. Electrical goods wholesalers
413. Hardware, plumbing and heating equipment, and supplies wholesalers
414. Machinery, equipment, and supplies wholesalers
415. Recyclable material wholesalers
416. Miscellaneous durable goods wholesalers
417. Paper and paper product wholesalers
418. Drugs, sundries, and chemical and allied product Wholesalers
419. Apparel, fabrics, and notions wholesalers
420. Groceries and related product wholesalers
421. Farm product raw material wholesalers
422. Petroleum and petroleum product wholesalers
423. Alcoholic beverage wholesalers
424. Farm supplies wholesalers
425. Miscellaneous nondurable goods wholesalers
426. Not specified wholesale trade

## RETAIL TRADE

467. Automobile dealers
468. Other motor vehicle dealers
469. Auto parts, accessories, and tire stores
470. Furniture and home furnishings stores
471. Household appliance stores
472. Radio, TV, and computer stores
473. Building material and supplies dealers
474. Hardware stores
475. Lawn and garden equipment and supplies stores
476. Grocery stores
477. Specialty food stores
478. Beer, wine, and liquor stores
479. Pharmacies and drug stores
480. Health and personal care, except drug, stores
481. Gasoline stations
482. Clothing and accessories, except shoe, stores
483. Shoe stores
484. Jewelry, luggage, and leather goods stores
485. Sporting goods, camera, and hobby and toy stores
486. Sewing, needlework and piece goods stores
487. Music stores
488. Book stores and news dealers
489. Department stores
490. Miscellaneous general merchandise stores
491. Retail florists
492. Office supplies and stationary stores
493. Used merchandise stores
494. Gift, novelty, and souvenir shops
495. Miscellaneous retail stores
496. Electronic shopping and mail-order houses
497. Vending machine operators
498. Fuel dealers
499. Other direct selling establishments
500. 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
650. Motion pictures and video industries
651. Sound recording industries
652. Radio and television broadcasting and cable
653. Wired telecommunications carriers
654. Other telecommunication services
655. Libraries and archives
656. Other information services
657. Data processing services

## FINANCE AND INSURANCE

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

## REAL ESTATE AND RENTAL AND LEASING

707. Real estate
708. Automotive equipment rental and leasing
709. Video tape and disk rental
710. Other consumer goods rental
711. 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

## E. State and Country Codes

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E1. STATES
1. Alaska (AK)
2. Alabama (AL)
53. American Samoa, Guam
3. Arizona (AZ)
4. Arkansas (AR)
5. California (CA)
6. Colorado (CO)
7. Connecticut (CT)
8. Delaware (DE)
51. Dist. of Columbia(DC)
9. 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)
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38. Pennsylvania (PA)
39. Puerto Rico (PR)
40. Rhode Island (RI)
41. South Carolina (SC)
42. South Dakota (SD)
43. Tennessee (TN)
44. Texas (TX)
45. Utah (UT)
46. Vermont (VT)
47. (U.S.) Virgin Islands
48. Virginia (VA)
49. Washington (WA)
50. Washington, D.C. (DC)
51. West Virginia (WV)
52. Wisconsin (WI)
53. Wyoming (WY)

E2. 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

## E3. OTHER COUNTRIES

97. Other Country
98. DK
99. NA

[^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.

