HEALTH AND RETIREMENT STUDY
2020 Core
Final, Version 1.0
May 2023

Data Description and Usage

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

- Make no attempts to identify study participants.

- Not to transfer HRS Public Release data to any third party other than staff or students for whom you are directly responsible except as indicated below.

- Not to allow others to use your username and password to access this site.

- To certify the destruction of any downloaded Public Release data file as well as any data files derived from the downloaded file when requested to do so by the Health and Retirement Study.

- To include the following citation in any research reports, papers, or publications based on Public Release data:

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

In references:
"Health and Retirement Study, 2020 HRS Final Core public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, (year)."
- To include the following citation in any research reports, papers, or publications based on any Public Release data file tagged as "Early" or "Preliminary":

"This analysis uses Early Release data from the Health and Retirement Study, 2020 HRS Final Core, sponsored by the National Institute on Aging (grant number NIA U01AG009740) and conducted by the University of Michigan. These data have not been cleaned and may contain errors that will be corrected in the Final Public Release version of the dataset."
- Please note that although it is necessary to include the above citations to the HRS in any publications, it is not necessary to associate your publications with the HRS grant in PubMed.

- Provide information regarding any research product (dissertation, thesis, journal article, book, book chapter, report, etc.) based on data obtained from the Health and Retirement Study by sending an electronic copy to hrspublications@umich.edu.

- Report immediately to the Health and Retirement Study at hrsquestions@umich.edu any disclosure of study participant identity as well as any discovery of flaws or errors in the data or documentation files.

- Notify the Health and Retirement Study through use of the update function provided at this site or by electronic mail directed to hrsquestions@umich.edu of changes in your electronic mail address, postal address, telephone number, organizational affiliation or organizational status.

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Data Description and Usage

1. Overview

The 2020 HRS Core (Final, Version 1.0) data release consists of data obtained as part of the Health and Retirement Study (HRS), a national longitudinal study of the economic, health, marital, and family status, as well as public and private support systems, of older Americans. The National Institute on Aging provided funding (NIA U01 AG009740), with supplemental support from the Social Security Administration. The Institute for Social Research (ISR) Survey Research Center (SRC) at the University of Michigan conducted the survey.

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

1A. The Sample Interviewed in 2020

The data collection period for the 2020 interview was March 2020 through May 2021. The HRS sample is comprised of seven sub-samples (HRS, AHEAD, CODA, WAR BABY, EARLY BABY BOOMER, MIDDLE BABY BOOMER and LATE BABY BOOMER).

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

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

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

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

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

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

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

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

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

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

1B. 2020 Questionnaire Sections

2020 Section	Content
PR	Preload
A	Coverscreen
B	Demographics
C	Physical Health
D	Cognition
COV	COVID-19
E	Family Structure
F	Parents, Siblings and Transfers
G	Functional Limitations and Helpers
H	Housing
I	Physical Measures and Biomarkers
J	Employment
J2	Pensions
J3	Retirement and Social Security
M	Disability
N	Health Services and Insurance
P	Expectations
Q	Assets and Income
R	Asset Change
S	Widowhood and Divorce
T	Wills and Life Insurance
U	Asset Verification
V	Modules
W	Event History, Internet Use and Social Security
Y	Time Calculations
IO	Interviewer Observations
LB	Leave-Behind Questionnaires
TN	Thumbnails

1C. Levels of Files

In the 2020 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 2020 HRS Core (Final, Version 1.0), contains files at seven other levels: household-member-and-child, sibling, helper, transfer-to-child, transfer-from-child, jobs, and pension.

1C1. Household Level Files

Household-level files contain questions that were asked about the household of a designated coverscreen, financial, or family respondent. A coverscreen respondent answered family questions (section A) on behalf of the entire household; the coverscreen respondent may or may not be the family respondent. A family respondent answered family questions (section E) on behalf of the entire household, and a financial respondent answered household-level financial questions (sections H, Q, R and U) on behalf of the entire household. The household-level files contain one record for each household in which at least one interview was obtained in 2020.

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 2020.

1C3. Sibling Level File

The sibling-level file consists of characteristics of the respondent's siblings. If a respondent had at least one living parent, he/she was asked a variety of questions about his/her siblings (Section F). The sibling file contains one record for each sibling of a respondent. Each respondent reports on his/her own parents and siblings. Sibling data are also stored in the preload section, H20PR_SB.

1C4. Household Member and Child Level Files

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

1C5. Helper Level File

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

1C6. Transfer-to-Child-Level File

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

1C7. Transfer-from-Child-Level-File
The transfer-from-child-level file contains information provided by the family respondent about transfers of money from a child or grandchild. The file contains one record for each transfer from a child or grandchild.

1C8. Pension Level Files
Pension-level files contain information about pensions that the respondent has reported over the years during their involvement with the HRS. Each file contains one record for each pension that has been reported and followed up on in the current data collection.

1C9. Jobs level files
Job-level files contain information on jobs the respondent has reported over time. Current jobs are represented, as well as past employment with unresolved pensions from past waves. The files have one record for each job represented.

2. File Naming Conventions
Files are named beginning with "H20" for HRS 2020, followed by a letter (or two) designating the questionnaire section. A separator, "_" and then one or two letters designating the level follows the section letter designator.

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

For example, the file H20A_R includes variables from Section A (coverscreen) at the respondent level, whereas, H20A_H contains variables from Section A (coverscreen) at the household level.

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

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

One of each of these file types is provided for each of the 39 data files for the 2020 HRS Core (Final, Version 1.0) data release. For example,

```
H20A_R.da contains respondent data from Section A,
H20A_R.sas contains corresponding SAS program statements,
H20A_R.sas7bdat contains "ready-to-use" data in SAS format
H20A_R.sps contains corresponding SPSS program statements,
```

```
        H20A_R.sav contains "ready-to-use" data in SPSS format
        H20A_R.do contains corresponding Stata DO statements,
        H20A_R.dct contains corresponding Stata dictionary statements,
        H20A_R.dta contains "ready-to-use" data in Stata format, and
        H20A_R.txt contains the ASCII codebook.
```

3. Data Files

The 2020 HRS Core (Final, Version 1.0) 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 2020 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, RSUBHH
  H20A_H      N=11490      NV=47
  H20E_H      N=11490      NV=123
  H20H_H      N=11490      NV=211
  H20PR_H     N=11490      NV=45
  H20Q_H      N=11490      NV=669
  H20R_H      N=11490      NV=113
  H20U_H      N=11490      NV=247


Respondent level files, IDS=HHID, PN, RSUBHH
  H20A_R      N=15723      NV=38
  H20B_R      N=15723      NV=171
  H20C_R      N=15723      NV=255
  H20COV_R    N=15723      NV=168
  H20D_R      N=15723      NV=276
  H20F_R      N=15723      NV=195
  H20G_R      N=15723      NV=153
  H20IO_R     N=15723      NV=72
  H20J_R      N=15723      NV=632
  H20J3_R     N=15723      NV=181
  H20LB_R     N=15723      NV=523
  H20M1_R     N=15723      NV=263
  H20M2_R     N=15723      NV=377
  H20N_R      N=15723      NV=344
  H20P_R      N=15723      NV=58
  H20PR_R     N=15723      NV=181
  H20S_R      N=15723      NV=116
  H20T_R      N=15723      NV=107
  H20TN_R     N=15723      NV=20
  H20V_R      N=15723      NV=248
  H20W_R      N=15723      NV=18
  H20Y_R      N=15723      NV=36


Household member and child level files, IDS=HHID, RSUBHH, OPN
  H20PR_MC    N=62769      NV=26
  H20E_MC     N=51596      NV=29


Sibling level files, IDS=HHID, PN, OPN
  H20PR_SB    N=16113      NV=16
  H20F_SB     N=16113      NV=29
```

```
Transfer-to-child-level-file, IDS=HHID, RSUBHH
   H20E_TC      N=4206        NV=25


Transfer-from-child-level-file, IDS=HHID, RSUBHH
   H20E_FC      N=888         NV=26


Helper level file, IDS=HHID, PN, OPN
   H20G_HP      N=3983        NV=31


Jobs level file, IDS=HHID, PN, JOBID
   H20PR_JB     N=23899       NV=16


Pension level files, IDS=HHID, PN, Pension ID
   H20PR_P      N=7516        NV=17
   H20J2_P      N=8934        NV=185
```

3A. Construction of the Interviewer Observation Files (IO_R and IO_H).
The interview observations can have many entries for each sample ID. In order to create the release files we use the following guidelines:

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

IO_H: this is a little more complicated, as the most important factor for the Household level file is the housing observations, which can be recorded at any time. For each HH, we look for the first and most complete set of housing observation questions for the household, as it could have been recorded on the line of either respondent. We use that record for the Household Level observation file. Note: IO_H data are not available with the 2020 Final Core data.

4. Identification Variables
Identification variables for HRS 2020 are stored in character format.

4A. Primary Identification Variables
Several variables, HHID, RSUBHH, PN, OPN, are used in various combinations to uniquely identify the nine different level datasets that comprise this data release.

4A1. HHID – Household Identification Number
In the initial wave of data collection (in 1992 for the HRS sub-sample, in 1993 for the AHEAD sub-sample, 1998 for the WB and CODA sub-samples, 2004 for the EBB sub-sample, 2010/2011 for the MBB sub-sample and 2016 for the LBB sub-sample), each sample household was assigned a Household Identifier. HHID is stable across waves of data collection and uniquely identifies the original household and any households derived from that household in subsequent waves of data collection. HHID has six-digits.

4A2. RSUBHH – 2020 Sub-household Identifier
In combination with HHID, RSUBHH uniquely identifies a household at the time of the 2020 data collection. Sub-household identifiers can be different at each wave. RSUBHH has one-digit. For more information, see Examples of Sub-Household and Respondent Person Number and Other Person Number Assignments.

4A3. PN – Person Number
In combination with HHID, PN uniquely identifies a respondent or respondent's spouse or partner. PNs are unique within an original household (HHID). The PN assigned to a particular respondent does not change across waves. PN has three-digits.

4A4. OPN – Other Person Number.
In the 2020 data collection HHID, RSUBHH and OPN uniquely identify another person in the household member and child files; HHID, PN, and OPN uniquely identify another person in the helper or sibling files. OPN has three-digits.

4B. Primary Identification Variables for Datasets at Each of the Nine Levels
Two identifiers uniquely identify records in the
   o   respondent-level datasets:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) PN   RESPONDENT PERSON IDENTIFICATION NUMBER

Two identifiers uniquely identify records in the
   o   household-level datasets:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) RSUBHH   2020 SUB HOUSEHOLD IDENTIFICATION NUMBER

Three identifiers uniquely identify records in the
   o   helper-level datasets:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) PN   RESPONDENT PERSON IDENTIFICATION NUMBER
       3) OPN   OTHER PERSON NUMBER

Three identifiers uniquely identify records in the
   o   household-member-and-child-level:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) RSUBHH   2020 SUB HOUSEHOLD IDENTIFICATION NUMBER
       3) OPN   OTHER PERSON NUMBER

Three identifiers uniquely identify records in the
   o   sibling-level datasets:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) PN   RESPONDENT PERSON IDENTIFICATION NUMBER
       3) OPN   OTHER PERSON NUMBER

Three identifiers uniquely identify records in the
   o   transfer-to-child-level, and
   o   transfer-from-child-level datasets:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) RSUBHH   2020 SUB HOUSEHOLD IDENTIFICATION NUMBER
       3) OPN   OTHER PERSON NUMBER

Three identifiers uniquely identify records in the
   o   Pension Level Data sets
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) PN   RESPONDENT PERSON IDENTIFICATION NUMBER
       3) Z505   PENSION TRACKING NUMBER

Three identifiers uniquely identify records in the
   o   Jobs level datasets:
       1) HHID   HOUSEHOLD IDENTIFICATION NUMBER
       2) PN   RESPONDENT PERSON IDENTIFICATION NUMBER

3) Z504   JOB TRACKING NUMBER

4C. Secondary Identification Variables
In addition to the primary identification variables that uniquely identify
records in a dataset, secondary identification variables that allow links to
other datasets are provided. Two sets of secondary identification variables are
provided. They are listed below.

Secondary Identification Variables for
   o respondent-level datasets
   o sibling level datasets
   o helper-level datasets
   o job-level datasets and
   o Pension-level datasets

        RSUBHH   2020 SUB HOUSEHOLD IDENTIFICATION NUMBER
        QSUBHH   2018 SUB HOUSEHOLD IDENTIFICATION NUMBER
        RPN_SP   2020 SPOUSE/PARTNER PERSON NUMBER
        RCSR   2020 WHETHER COVERSHEET RESPONDENT
        RFAMR   2020 WHETHER FAMILY RESPONDENT
        RFINR   2020 WHETHER FINANCIAL RESPONDENT

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

        RSUBHH   2020 SUB HOUSEHOLD IDENTIFICATION NUMBER
        QSUBHH   2018 SUB HOUSEHOLD IDENTIFICATION NUMBER
        OPN_CS   PERSON NUMBER OF COVER SCREEN RESPONDENT
        RPN_FAM   2020 FAMILY RESP PERSON NUMBER
        RPN_FIN   2020 FINANCIAL RESP PERSON NUMBER
        RPN_NCS   2020 NON-COVERSCREEN RESP PERSON NUMBER
        RPN_NFAM 2020 NON-FAMILY RESP PERSON NUMBER
        RPN_NFIN 2020 NON-FINANCIAL RESP PERSON NUMBER

4D. Datasets Including RSUBHH and OPN as Primary Identifiers
When working with datasets including RSUBHH and OPN as primary identifiers --
household-member-and-child-level, it is essential to use RSUBHH to distinguish
other persons.

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

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

5. Distribution Files and Directory Structure

5A. Distribution Files
The files are packaged for download from our Web site in two different ways – as one large .zip file that contains six smaller .zip files, one .pdf file, and one .txt file, or the six smaller files available individually for separate download. The combined file is H20core.zip.

The individual .zip files for separate download are:
    ASCII data files
        H20da.zip contains data files.

    Program statements and "ready-to-use" files
        H20sas.zip contains SAS program statements (.sas) and "ready-to-use" files (.sas7bdat)
        H20sps.zip contains SPSS program statements (.sps) and "ready-to-use" files (.sav)
        H20sta.zip contains Stata program statements (.do), dictionary statements (.dct) and "ready-to-use" files (.dta)

    Documentation files
        H20cb.zip contains the codebook.
        H20qn.zip contains the questionnaire.
        H20dd.pdf - this document.

5B. Directory Structure
While a particular setup is not required for using HRS files, we have traditionally suggested a directory structure. By using this directory structure, you will not have to change the path name in your program statement files. If you use a different structure, just change the directory references in the program statement files.

Directory	Contents
c:\hrs2020	Files downloaded from Web site
c:\hrs2020\codebook	Unzipped files from H20cb.zip
c:\hrs2020\data	Unzipped files from H20da.zip
c:\hrs2020\qnaire	Unzipped files from H20qn.zip
c:\hrs2020\sas	Unzipped files from H20sas.zip
c:\hrs2020\spss	Unzipped files from H20sps.zip
c:\hrs2020\stata	Unzipped files from H20sta.zip

Decompress the selected .zip files into the appropriate subdirectories.

6. Program Statements

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

The statement files are named beginning with the same prefix as the corresponding data file. For example, SAS statements in the file H20A_R.SAS go with the H20A_R.DA data file.

6A. Using the Files with SAS
To create a SAS system file for a particular dataset, two file types must be present for that dataset -- .SAS program statement files and .DA data files.

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

If the *.SAS file is located in "c:\hrs2020\sas" and the data file is located in "c:\hrs2020\data", you can run the file as is. A SAS system file (*.SD2 or *.SAS7BDAT) will be saved to directory "c:\hrs2020\sas".

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

6B. Using the Files with SPSS
To create an SPSS system file for a particular dataset, two file types must be present for that dataset -- .SPS program statement files and .DA data files.

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

If the *.SPS file is located in "c:\hrs2020\spss" and the data file is located in "c:\hrs2020\data", you can run the file as is. An SPSS system file (*.SAV) will be saved to directory "c:\hrs2020\spss".

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

6C. Using the Files with Stata
To use Stata with a particular dataset, the following three file types must be present for that dataset -- .DCT files, .DO files, and .DA data files.

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

If the *.DO and *.DCT files are located in "c:\hrs2020\Stata" and the data file is located in "c:\hrs2020\data", you can run the .DO file as is.

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

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

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

7A. Working in an OS X Environment
The following examples should work for both Macintosh OS X and any Unix/Linux distribution. Open the SAS program file(s), SPSS syntax file(s) or the Stata do/dct files in an ASCII editor and make the changes indicated below.

Important items for Mac OS X users to consider:

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

7A1. OS X: SPSS
In this example, we assume that the user has downloaded the 2020 tracker dataset and placed the files in a **Desktop** folder called **trk2020** with the ASCII data file (.da) stored in subfolder **data** and the syntax file (.sps) in subfolder **spss**. The commands in the syntax file(s) should be modified to look like this:

```
FILE HANDLE trk2020TR_R /name='~/Desktop/trk2020/data/TRK2020TR_R.da'
LRECL=221.
DATA LIST FILE= trk2020TR_R /
HHID 1-6(A)
[rest of syntax file goes here]
.
execute.
SAVE /outfile '~/Desktop/trk2020/spss/TRK2020TR_R.sav'.
Execute.
```

7A2. OS X: Stata
In the following example we assume that the user has downloaded the 2020 tracker dataset and placed the files in a **Desktop** folder called **trk2020** with the ASCII data file (.da) stored in subfolder **data** and the syntax files (.do/.dct) in subfolder **stata**. Next step is to modify the .do and .dct files in the stata folder:

File TRK2020TR_R.do:
Change from…
```
        infile using c:\trk2020\stata\TRK2020TR_R.dct
    To…
        infile using ~/Desktop/trk2020/stata/TRK2020TR_R.dct
```

Change from…
```
        save c:\trk2020\stata\TRK2020TR_R.dta
    To…
        Save ~/Desktop/trk2020/stata/TRK2020TR_R.dta
```

File TRK2020TR_R.dct:
Change from…
```
dictionary using c:\trk2020\data\TRK2020TR_R.da {
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"
column(7) str3 PN %3s "PERSON NUMBER"


            [additional dictionary statements]
}
```
To…
```
dictionary using ~/Desktop/trk2020/data/TRK2020TR_R.da {
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"
column(7) str3 PN %3s "PERSON NUMBER"
```

7B. Working in a Linux Environment

7B1. Linux: Stata
In the following system file build example we assume that the user (user1) has downloaded the 2020 tracker dataset and placed the files in a folder called **trk2020** (/home/user1/trk2020), with the ASCII data file (.da) stored in subfolder **data** (/home/user1/trk2020/data) and the syntax files (.do/.dct) in subfolder **stata** (/home/user1/trk2020/stata).

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

File TRK2020TR_R.do:
Change from…
            infile using c:\trk2020\stata\trk2020tr_r.dct
To…
            infile using /home/user1/trk2020/stata/trk2020tr_r.dct

Change…
            save c:\trk2020\stata\TRK2020TR_R.dta
To…
            Save /home/user1/trk2020/stata/trk2020tr_r.dta

File TRK2020TR_R.dct:
Change from…
dictionary using c:\trk2020\data\trk2020tr_r.da {
column(1) str6 HHID %6s "HOUSEHOLD IDENTIFIER"
column(7) str3 PN %3s "PERSON NUMBER"

                [additional dictionary statements]

}
To…
dictionary using /home/user1/trk2020/data/trk2020tr_r.da {

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

                [additional dictionary statements]
}

7B2. Linux: SAS
In the following examples we assume that the user (user1) is working in a folder named **saswork** (/home/user1/saswork), and is creating a SAS version of HRS products in a separate sub-folders (e.g./home/user1/saswork/2020/sas).

Building SAS system files (One Section)
In the following example we assume that the user has downloaded the 2020 tracker dataset and placed the files in a folder called trk2020 (/home/user1/saswork/trk2020) with the ASCII data file (.da) stored in subfolder **data** (/home/user1/saswork/trk2020) and the syntax file (.sas) in subfolder **sas** (/home/user1/saswork/trk2020/sas). Next step is to modify trk2020tr_r.sas to match the folder structure:

```
In file trk2020tr_r.sas:
```
Change from…
```
      LIBNAME trk2020 'c:\trk2020\sas\';
      DATA trk2020.trk2020tr_r;
      INFILE 'c:\trk2020\data\trk2020tr_r.da' LRECL = 1028;
```
To…
```
      LIBNAME trk2020 '/home/user1/saswork/trk2020/sas/ ';
      DATA trk2020.trk2020tr_r;
      INFILE '/home/user1/saswork/trk2020/trk2020tr_r.da' LRECL = 1028;
```

When the SAS file is run, it will create file trk2020tr_r.sas7bdat in folder
      /home/user1/saswork/trk2020/sas/.

Building SAS system files (Multiple Sections)

In the following example we assume that the user has downloaded the HRS 2020
Core dataset and placed the files in a folder called hrs2020
(/home/user1/saswork/hrs2020) with the ASCII data files (H20{sec}_{lvl}.da)
stored in subfolder **data** (/home/user1/saswork/hrs2020/data) and the syntax files
(H20{sec}_{lvl}.sas) in subfolder **sas** (/home/user1/saswork/hrs2020/sas).

Important: Begin by modifying each syntax file as follows:

Change all occurrences of...
```
      LIBNAME H2020 'c:\hrs2020\sas\';
```
To...
```
      LIBNAME H2020 '/home/user1/saswork/hrs2020/sas/';
```

Change the INFILE statement in each .sas file from...
```
      INFILE 'c:\hrs2020\data\H20{sec}_{lvl}.da' LRECL = nnn;
```
To...
```
      INFILE '/home/user1/saswork/hrs2020/data/H20{sec}_{lvl}.da' LRECL=nnn;
```

Example
```
      INFILE '/home/user1/saswork/hrs2020/data/H20A_H.da' LRECL=87;
```

8. Documentation

There are several types of documentation available for use with the 2020 HRS
Core (Final, Version 1.0) data release. These include a codebook and the 2020
box-and-arrow questionnaire. In addition, 2020 variables have been added to the
Online Concordance.

8A. Codebook
The HRS 2020 Codebook is provided as a series of 40 ASCII text files, including
a file containing all sections. There is a codebook file corresponding to each
data file. Each variable has its own codebook entry. The format of the codebook
is, for the most part, consistent with all previous releases.

8A1. Variable Names
Variable names begin with a letter designating the wave of data collection (R
for 2020), followed by the section letter, and numbers after the section letter.
For example, RC001 where R=2020, C=section C (physical health), and 001 is the
variable number. Variables from the preload section of the instrument will have
either QX or QZ as prefix letters. The X indicates a variable that is updated

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

```
RX007_R    RESP FAM/FIN TYPE - UPDATED
RZ077_R    PREV WAVE R FIN/FAM TYPE
```

RX007_R indicates that the preloaded Financial or Family respondent was changed,
or updated, later in the instrument from what had been preloaded (or assigned)
prior to the start of the 2020 interview.

8A1a. Multiple-response and Looped Variables

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

Simple multiple mention variables take the form: (wave prefix) + (section
letter) + (variable number) + (mention number). For example, RN219M1 through
RN219M5 are 2020 variables from section N with one through 5 mentions.

Variable names for multiple mentions to questions within a loop take the form:
(wave prefix) + (section letter) + (variable number) + (underscore) + (loop
iteration) + (letter designating mention number). For example, RN049_1M1, is a
2020 variable from section N, variable number 049 in the first iteration of the
loop, and the first mention.

Simple loop variables (not a multiple mention) have an underscore (_)in their
name and a suffix that designates the loop, e.g., RN025_1.

For variables that have a "W" right after the section designator, the variable
names are slightly different. Variable names for multiple mentions to questions
within a W-loop take the form: (wave prefix) + (section letter) + ("W") +
(variable number) + (letter designating loop iteration) + (mention number). For
example, RKW097A1, is a 2020 variable from section K, variable number 097 in the
first iteration of the loop, and the first mention. Other non-multiple mention
variables within this type of loop are named with the letter designating the
loop iteration. For example, RKW002A, is variable number 002 in the first
iteration of the loop.

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

8A1b. Masked Variables

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

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

Geographical locations are recoded to a level no more detailed than U.S. Census
Region and Division. Data on the highest educational degree earned have been
further grouped together to increase cell sizes.

The names of variables that were masked for confidentiality end in the capital letter "M"; for example, variable RX026M (1ST ADDRESS STATE – MASKED).

8A1C. Other Specify Questions, Comments and Open Ends
"Other Specify" and "Open End", or questions that are answered with text (e.g., vocabulary words, industry and occupation) are included in Final data releases. Similarly, the Final release data also include comments made by respondents in the course of the interview. For the Final release, HRS staff reviewed these comments for selected questions, and the coded answer was changed if it was determined that the comment changed the substance of the recorded answer.

8A2. Other Types of Documentation
In addition to this document and the codebook, three additional types of documentation are available.

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

This is a thorough document that provides a description of structure and content for all HRS public data files and a detailed explanation for handling the longitudinal nature of the survey. It is located here: http://hrsonline.isr.umich.edu/sitedocs/dmgt/OverviewofHRSPublicData.pdf

8A2b. Box and Arrow Questionnaire

The research community has referred to the type of documentation that describes the questions asked in the interview as a "questionnaire". Since the 2020 HRS data were collected using a Computer Assisted Interview (CAI) program, a traditional hard-copy questionnaire was not produced as part of the data collection phase. Therefore, in order to document question sequencing, we have provided a current-wave version of the traditional box and arrow questionnaire. The Box and Arrow Questionnaires are the "commented version" which include all changes made for the 2020 instrument. Changes can be found by searching for "#@" in the document.

8A2c. Cross-Wave Tracker File

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

8B. Master Codes
A master code file contains detailed codeframes used in several sections of the codebook. The master codes include health conditions, occupation codes, industry codes, and state and country codeframes. The master codes appear in Appendix B.

9. Additional Notes
The following are miscellaneous additional notes regarding the 2020 HRS Core (Final, Version 1.0). If we become aware of additional issues, they will be posted on our Web site in the Data Alerts section.

9A. Households with No Family or Financial Respondents
As noted earlier in this document, the data collection design was to have asked most questions of all respondents and some questions of just a designated coverscreen, or family, or financial respondent on behalf of the household.

However, occasionally that is not what happened. For some households we did not obtain an interview from a family or financial respondent. There were 447 households that had no family respondent; 282 households had no financial respondent. There are 5 missing coverscreen respondents in this wave. The household records for these households contain null values for the missing information. Households missing a family or financial respondent can be identified, respectively, by values of "Blank. No family/financial respondent" (in the household record) in the following variables:

    RPN_FAM – 2020 FAMILY RESP PERSON NUMBER
    RPN_FIN – 2020 FINANCIAL RESP PERSON NUMBER

9B. Unfolding Bracket Variables and Imputations

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

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

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

For other sequences -- those in which respondents were randomly assigned to one of three "entry" points for the first unfolding question -- the analyst will also need to take into account a fourth variable (located in the preload sections) that specifies the entry point for each respondent. The following example shows the preload variable (PZ041) and the unfolding sequence that uses the random entry point from RZ041.

Example Random Entry Assignment Variable from Preload:
    Preload Variable from the data file H20pr_h:
....
RZ041   PREASSIGNED UNFOLD RANDOM VALUE - SELF EMPLOYMENT
Section: PR   Level: Household   Type: Numeric   Width: 1   Decimals: 0
        Ref: HH.X041_UnfSEmpInc_V

        UNFOLD ASSIGN - SELF EMPLOYMENT INCOME
....
        3782   1. RANDOM ASSIGNMENT 1
        3828   2. RANDOM ASSIGNMENT 2

```
          3864              3.  RANDOM ASSIGNMENT 3
            16         Blank.  Data Missing
.................................................................
Unfolding Series from section Q that uses RX041 to assign respondents an entry
point:
.................................................................
RQ016                    R INCOME FROM SELF EMPLOYMENT - MIN
Section: Q    Level: Household      Type: Numeric   Width: 6   Decimals: 0
       Ref: SecQ.RIncome.Q016_

       (Thinking about your self-employment income in  [Last Calendar Year]):

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

       PROCEDURES: 3Up, 2Up1Down, 1Up2Down
       BREAKPOINTS: $5,000, $10,000, $25,000, $100,000
       RANDOM ENTRY POINT ASSIGNMENT [1 ($5,000)] or [2 ($10,000)] or
       [{NOT 1 and NOT 2} ($25,000)] AT X041
.................................................................
          115              0.  Value of Breakpoint
           10           5000.  Value of Breakpoint
           18           5001.  Value of Breakpoint
            7          10000.  Value of Breakpoint
           20          10001.  Value of Breakpoint
            1          25000.  Value of Breakpoint
           24          25001.  Value of Breakpoint
            4         100000.  Value of Breakpoint
           14         100001.  Value of Breakpoint
        11277         Blank.  INAP (Inapplicable); Partial Interview
.................................................................
.................................................................
RQ017                    R INCOME FROM SELF EMPLOYMENT - MAX
Section: Q    Level: Household      Type: Numeric   Width: 8   Decimals: 0
       Ref: SecQ.RIncome.Q017_

       *

.................................................................
           37           4999.  Value of Breakpoint
           10           5000.  Value of Breakpoint
           21           9999.  Value of Breakpoint
            7          10000.  Value of Breakpoint
           19          24999.  Value of Breakpoint
            1          25000.  Value of Breakpoint
           20          99999.  Value of Breakpoint
            4         100000.  Value of Breakpoint
           94       99999996.  Greater than Maximum Breakpoint
        11277         Blank.  INAP (Inapplicable); Partial Interview
.................................................................

.................................................................
 RQ018                    R INCOME FROM SELF EMPLOYMENT - RESULT
 Section: Q    Level: Household      Type: Numeric   Width: 2   Decimals: 0
       Ref: SecQ.RIncome.Q018_

       *
.................................................................
            9              0.  No Breakpoint values given during interview
```

```
        21         98.  DK (Don't Know); NA (Not Ascertained)
        57         99.  RF (Refused)
     11402       Blank.  INAP (Inapplicable); Partial Interview
..............................................................
```

9C. 2020 Unfoldings Issues

Due to a programming issue, some errors were introduced into unfoldings data
obtained from interviewer-administered interviews in 2020. More specifically,
for certain unfoldings when a respondent backed up and entered the unfolding
again, any changes they made did not update the MIN, MAX and RESULT variables.
To correct problems with unfoldings data, HRS staff compared audit trail data,
which presents a record of the entries made and actions taken by interviewers as
they completed an interview, against the Blaise data. Where possible, the audit
trail data was used to reconstruct the interview data however not all unfoldings
problems could be resolved due to incomplete or missing audit data.

9D. Modules for the 2020 Data Collection

There are 10 modules for 2020 HRS. The module data can be found in the file
H20V_R. Topical areas of the modules include:

Module 1: Retirement Knowledge Scale
Module 2: Long term care insurance procrastination
Module 3: Depression
Module 4: Social Security Knowledge
Module 5: Time Inconsistency
Module 6: Upper extremity difficulties
Module 7: Probability Numeracy
Module 8: Longevity and Regret
Module 9: End of Life Decisions
Module 10: Substance Use Problems

The following variables of Module 10 are available in the public use file:
RV652 ALCOHOL FREQUENCY
RV653 ALCOHOL FREQUENCY 4/5 OR MORE
RV654 TOBACCO FREQUENCY

The remaining Module 10 variables are available in the HRS 2020 Core Module 10:
Substance Use Problems sensitive health data product.

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

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

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

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

Family and Financial R Assignments – As we keep a record of a non-interviewed spouse in the core data, we also release their assigned role in the household (i.e. family or financial R) with a listing for LPN_FIN, and LPN_FAM in the household sections. The tracker file will simply list the assignments of the people interviewed. Therefore, for example, the 2008 Core Final data has a blank line in Section H for a household where '020' was the non-interviewed financial R. The tracker file would show the same household as not having a financial R.

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

9F. Enhanced Face-to-Face Sample Design and Content
In 2006, HRS initiated what is referred to as an Enhanced Face-to-Face Interview. In addition to the core interview, the Enhanced Face-to-Face Interview includes a set of physical performance measures, collection of biomarkers, and a Leave-Behind Questionnaire on psychosocial topics. A random one-half of households were pre-selected for the enhanced face-to-face interview in 2006, with the other half of the sample selected for 2008, and the design is repeated in each subsequent wave. In coupled households, both members of the couple are selected. Selected respondents who completed a self (as opposed to proxy) interview, in-person (at least through Section I – the physical measures and biomarkers section), and who were non-institutionalized at the time of the interview were eligible for the physical measures and biomarkers components. This same group of respondents, plus those for whom an in-person proxy interview was completed, were also eligible for the Leave-Behind Questionnaire.

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

Physical Performance Measures and Biomarkers (Section I_R)
- Blood pressure
- Hearing test
- Breathing test (peak flow)
- Grip strength
- Balance tests (semi-tandem, side-by-side, and with [30/60] second full-tandem)
- Timed walk (8 ft., eligible if 65 or older)

- Height
- Weight (eligible if weight is under 300 pounds)
- Waist circumference
- Saliva (for which DNA was extracted and stored – eligible if saliva invalid previous wave or no saliva collection previous wave)
- Dry blood spots (analyzed for Hemoglobin A1c, total cholesterol and HDL cholesterol)

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

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

9G. Web
In 2020, HRS administered its second wave of Web as an alternate mode for data collection for the core biennial interview. Web was offered as an alternative for telephone and regular face-to-face respondents only; respondents in the half-sample scheduled for the enhanced face-to-face interview were not eligible for Web this wave. Assignment to web mode was made at the household level; for 2-person households both members needed to be eligible as individuals, based on a prior report of internet access along with other selection criteria (e.g., English speaking, self-respondent, non nursing-home resident in prior wave). Of the 3,476 Web eligible households, 2,618 or 75% were randomly selected for the Web sample with the remainder receiving their usual mode of either telephone or face-to-face for comparison purposes.

Participants in the Web sample were sent an advance letter inviting them to complete their 2020 interview on the Web. The advance letter contained information to access the survey. Five days later, nonresponding cases were sent an email invitation with information to access the survey. Respondents were provided with contact information (a toll-free number and email address) to contact us if they needed assistance accessing the web survey or preferred to complete their interview by phone. Email and mail reminders were sent approximately every 6 days.

Participants in the Web sample who had not completed the survey after six weeks were contacted by an interviewer for a phone interview. Any cases started on the web were able to resume the survey where they left off in the new mode. The Web survey was programmed to be as close as possible to the phone and in-person. Rather than break the survey into modules we designed it to allow respondents to work at their own pace and to stop at any point and return later to continue, even if they required several sessions to complete it.

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

Non-Response
In the web version of the questionnaire, respondents are allowed to leave any
given question that was presented on the screen unanswered to comply with the
voluntary nature of the survey. This was distinctly different from the
interviewer-administered version of the questionnaire which did not allow
questions to be "empty." If the respondent could not or refused to answer, the
interviewer could select "Don't Know" or "Refused" as appropriate.
Web non-response cases were reviewed by HRS staff. We have incorporated "web
non-response" indicators in the data to signal where a question was presented to
the respondent but they did not answer. The web non-response flags are based on
the final path taken by the respondent through the interview. If the respondent
backed up to change an answer and went down a different path, the data for the
first path was not retained.

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

- -
RB000   LIFE SATISFACTION
Section: B   Level: Respondent   Type: Numeric   Width: 2   Decimals: 0
        Ref: SecB.B000_

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

        WEB-ADMINISTERED TEXT:
        Now, please think about your life-as-a-whole. How satisfied are you
        with it?
....
        3261   1. COMPLETELY SATISFIED
        6700   2. VERY SATISFIED
        4123   3. SOMEWHAT SATISFIED
         564   4. NOT VERY SATISFIED
         143   5. NOT AT ALL SATISFIED
         197   8. DK (Don't Know); NA (Not Ascertained)
          14   9. RF (Refused)
         721   Blank. INAP (Inapplicable); Partial Interview

Cognition
The cognition measures in Section D noted below are available in the data:
  • Immediate Word Recall (D182W, D174W, D175W, D176W, D177W)
  • Delayed Word Recall (D183W, D184W, D185W, D186W, D187W, D191W)
  • Speed Tests (D237WA, D237WC, D237WT, D238WA, D238WC, D238WT)
  • Number Series (D216W, D217W, RNSSCORE, RNSSCORESE)

9H. COVID-19
The data collection period for the 2020 interview was March 2020 through June
2021. Due to the restrictions on social contact during the fieldwork period,
most interviews were conducted via telephone or web. No enhanced Face-to-Face
interviews were collected. As a result, data from Section I (Physical Measures

and Biomarkers) and Section IO_H (Interviewer Observations Household) are not available. Respondents who would have had their interview conducted as enhanced face-to-face (EFTF) were sent the self-administered leave behind questionnaire (SAQ) by mail, following their core interview.

HRS added COVID-19-related questions to the 2020 core interview (filename: h20cov_r) and to the psychosocial self-administered questionnaire (pages 36-43; filename: h20lb_r).

The COVID-19 Project data, a special midterm data release, was originally released in November 2020 and updated in February 2021. It included a special release of 3,266 respondents from a subsample of households who were originally assigned to enhanced face-to-face interviewing, in two random half groups, one starting in June 2020 and one in September 2020. The variable RCOVFLAG indicates respondents who were included in the COVID-19 Project data release.

9I. Whole Blood Draws
Beginning in 2016, The Health and Retirement Study started collecting whole blood samples from respondents.   Individuals are asked to consent to the whole blood draw at the end of the core interview and are mailed a $50 token of appreciation subsequent to the consent and before the whole blood draw appointment.   An "acknowledgement of consent" is signed at the time of collection.   In 2018, the entire LBB (Late Baby Boomer) cohort, anyone eligible for the whole blood draw in 2016 who did not consent to or complete a WBD request at that time, and any new respondents were eligible to participate. This request was made to all eligible self-interview Rs (regardless of mode of interview or preferred language), provided they were not in a nursing home.

9K. Errata
For HHID = 501126 PN = 021 is now PN = 010.

Section D
In word recall task, some web cases in 2020 HRS Core (Early, Version 2.0) data were coded as "96. NONE REMEMBERED/NO RESPONSE PROVIDED." Web respondents that do not provide a response to the immediate word recall task are skipped out of the delayed word recall task by design. As a result, HRS determined that these cases should be treated as missing data. For this reason, we applied the following recodes:

if QD182WM1 eq 96 then
QD174W = .
QD175W = .
QD176W = .

QD184W = .
QD185W = .
QD186W = .

if QD183WM1 eq 96 then
QD184W = .
QD185W = .
QD186W = .

Section H
Some respondents were erroneously skipping question H101. This was corrected in Data Model 5.

Section PR_R

There was a problem where preload (Z076) was being wiped out for eleven web respondents who repeatedly clicked the login button.

2020 Self-Administered Questionnaire (SAQ)
The English version of the self-administered questionnaire variable Q69 includes two "Exercise at home" items which correspond to variables RLB069G and RLB069M in Section LB. These appear in the data as they were recorded by the respondent, regardless of whether they contain conflicting information.

Variable LB019 of the SAQ for waves 2006-2002 and 2018-2020 included 15 items. The same question was named LB018 in waves 2014 and 2016 and it consisted of 10 items that were presented in a slightly different order than in the other waves. Beginning with 2020, the LB019 data and codebook will align with how the variables appear in the questionnaire.

The following table lists the question and variable name from 2006-2020.

Question Text	Variable Name by Wave							
	2006	2008	2010	2012	2014	2016	2018	2020
If something can go wrong for me, it will.	KLB019F	LLB019F	MLB019F	NLB019F	OLB018A	PLB018A	QLB018A	RLB018F
I'm always optimistic about my future.	KLB019G	LLB019G	MLB019G	NLB019G	OLB018B	PLB018B	QLB018B	RLB018G
In uncertain times, I usually expect the best.	KLB019H	LLB019H	MLB019H	NLB019H	OLB018C	PLB018C	QLB018C	RLB018H
Overall, I expect more good things to happen to me than bad.	KLB019I	LLB019I	MLB019I	NLB019I	OLB018D	PLB018D	QLB018D	RLB018I
I hardly ever expect things to go my way.	KLB019J	LLB019J	MLB019J	NLB019J	OLB018E	PLB018E	QLB018E	RLB018J
I rarely count on good things happening to me.	KLB019K	LLB019K	MLB019K	NLB019K	OLB018F	PLB018F	QLB018F	RLB018K
I feel it is impossible for me to reach the goals that I would like to strive for.	KLB019L	LLB019L	MLB019L	NLB019L	OLB018G	PLB018G	QLB018G	RLB018L
The future seems hopeless to me and I can't believe that things are changing for the better.	KLB019M	LLB019M	MLB019M	NLB019M	OLB018H	PLB018H	QLB018H	RLB018M

I don't expect to get what I really want.	KLB019N	LLB019N	MLB019N	NLB019N	OLB018I	PLB018I	QLB018I	RLB018N
There's no use in really trying to get something I want because I probably won't get it.	KLB019O	LLB019O	MLB019O	NLB019O	OLB018J	PLB018J	QLB018J	RLB018O
Most people dislike putting themselves out to help other people.	KLB019A	LLB019A	MLB019A	NLB019A	N/A	N/A	QLB018K	RLB018A
Most people will use somewhat unfair means to gain profit or an advantage rather than lose it.	KLB019B	LLB019B	MLB019B	NLB019B	N/A	N/A	QLB018L	RLB018B
No one cares much what happens to you.	KLB019C	LLB019C	MLB019C	NLB019C	N/A	N/A	QLB018M	RLB018C
I think most people would lie in order to get ahead.	KLB019D	LLB019D	MLB019D	NLB019D	N/A	N/A	QLB018N	RLB018D
I commonly wonder what hidden reasons another person may have for doing something nice for me.	KLB019E	LLB019E	MLB019E	NLB019E	N/A	N/A	QLB018O	RLB018E

Section G
Activities of Daily Living
Some respondents who reported they received help at one Activity of Daily Living
(ADL) did not get the ADL follow-up loop at G176. This issue was undiscovered
for several waves. HRS broadened who should get question G176 which means that
more people will get the question in 2020 than in previous waves.

Functional Limitations and Helpers
Due to a programming error, some respondents were not asked certain variables in
Section G: Functional Limitations and Helpers.

The following variables were impacted by this error:

RG021 DIFFICULTY- BATHING
RG023 DIFFICULTY- EATING
RG025 DIFFICULTY- GET IN/OUT BED

RG030 DIFFICULTY- USING TOILET

For cases affected by this error, HRS imputed missing data. The variable RADLIMP denotes which cases include imputed data. The issue was fixed for Data Model 8 and later.

Based on imputed responses to the ADL sequence, some respondents were incorrectly not asked the questions listed below. Data for these items was not imputed.

RG022 BATHE HELP
RG024 EAT HELP
RG026 BED EQUIPMENT
RG027 WHAT BED EQUIPMENT
RG029 BED HELP
RG031 TOILET HELP
RG032 WHO HELPS MOST
RG033 HELPER RELATIONSHIP TO R
RG035 ANYONE ELSE HELP

9L. Summary of Data Model (DM) Changes during 2020 Production
During the field period, changes to the instrument were made in order to correct errors in programming, improve the quality of the data, modify the question wording/content or to add new questions. A complete listing of Data Model changes (that impact Core data) is provided in the Appendix (link). The variable QVDATE (this corresponds to the field DM Version in the table provided in the Appendix) exists in all of the data files and it tells what version of the data model was used to collect a given interview.

9M. New/Modified Questions in HRS 2020
- A255_A020 (Web Only): New question to confirm coupleness status.
- A248 (FACILITY NAME, A249 (FACILITY ADDRESS 1), A250 (FACILITY ADDRESS 2: New questions to obtain Facility name and address if respondent is in any type of long-term health care facility.
- B136 (MOTHER WORK OUTSIDE OF HOME) and B137 (MOTHERS MAIN OCCUPATION): New questions
- N282 (AGE/YEAR WHEN COVERAGE STARTED): Added new response options
- W550-W643: New questions to capture information about the effects of the Coronavirus pandemic

10. OBTAINING THE DATA

10A. Registration and Downloading the Data
HRS data are available for free to researchers and analysts at the HRS Web site. In order to obtain public release data, you must first register at our Web site. Once you have completed the registration process, your username and password will be sent to you via e-mail. Your username and password are required to download any data files.

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

10B. Conditions of Use
By registering, you agree to the Conditions of Use governing access to Health and Retirement public release data.

10C. Publications Based on Data
As part of the data registration process, you agree to include specified citations and to inform HRS of any papers, publications, or presentations based on HRS data. Please send a copy of any publications you produce based on HRS data, with a bibliographical reference, if appropriate, to the address below.

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

Alternately, you may contact us by e-mail at hrsquestions@umich.edu with: "Attn: Papers and Publications" in the subject line.

11. If You Need to Know More
This document is intended to serve as a brief overview and to provide guidelines to using the 2020 HRS Core (Final, Version 1.0) data. If you have questions or concerns that are not adequately covered here or on our Web site, or if you have any comments, please contact us. We will do our best to provide answers.

11A. HRS Internet Site
Health and Retirement Study public release data and additional information about the study are available on the Internet. To access the data and other relevant information, point your Web browser to the HRS Web site.

11B. Contact Information:
If you need to contact us, you may do so by one of the methods listed below.

        Internet: Help Desk at our Web site
        E-mail: hrsquestions@umich.edu

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

        FAX: (734)647-1186

Appendix

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

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

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

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

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

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

A1. Married Couple Stays Married

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

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

Time 1
Household records
    HHID=012345 ASUBHH=0
Respondent records
    HHID=012345 PN=010 ASUBHH=0
    HHID=012345 PN=020 ASUBHH=0
Time 2
Household records
    HHID=012345 CSUBHH=0
Respondent records
    HHID=012345 PN=010 CSUBHH=0
    HHID=012345 PN=020 CSUBHH=0

---

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

A2. Couple Divorces
Two respondents in a sample household are married at the time of the first
cross-section. Each respondent is assigned a HHID of 023456 and a SUBHH of 0.
One respondent has a PN of 010, the other a PN of 020.

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

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

A3. One or Both Respondents Die
Two respondents in a sample household are married at the time of the first
cross-section. Each respondent is assigned a HHID of 034567 and a SUBHH of 0.
One respondent has a PN of 010, the other a PN of 020.

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

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

A4. Single Respondent Marries
A respondent who has never been married is in the first cross-section. The
respondent is assigned a HHID of 045678 and a SUBHH of 0 and a PN of 010.

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

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

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

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

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

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

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

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

Time 3
```
Household records
     HHID=056789 FSUBHH=1
     HHID=056789 FSUBHH=2
     HHID=056789 FSUBHH=5
Respondent records
     HHID=056789 PN=010 FSUBHH=2
     HHID=056789 PN=011 FSUBHH=5
```

```
     HHID=056789 PN=020 FSUBHH=1
```

A6. Couple Divorces and Marries Again

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

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

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

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

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

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

A7. Married Couple with Children and Siblings

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

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

Household member/child records
     HHID=078901 ASUBHH=0 OPN=101 (child)
     HHID=078901 ASUBHH=0 OPN=102 (child)
```

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

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

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

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

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

Time 2
Household records
```
     HHID=089012 CSUBHH=1
     HHID=089012 CSUBHH=2
```
Respondent records
```
     HHID=089012 PN=010 CSUBHH=2
     HHID=089012 PN=020 CSUBHH=1
```
Household member/child records
```
     HHID=089012 CSUBHH=1 OPN=101 (child)
     HHID=089012 CSUBHH=1 OPN=102 (child)
HHID=089012 CSUBHH=1 OPN=051 (her brother)
HHID=089012 CSUBHH=1 OPN=052 (her brother)
     HHID=089012 CSUBHH=2 OPN=101 (child)
     HHID=089012 CSUBHH=2 OPN=102 (child)
HHID=089012 CSUBHH=2 OPN=061 (his sister)
```

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

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

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

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

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

B. Master Codes

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

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

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

Cancers and tumors; skin conditions
101. Cancer--any site or type; leukemia; Hodgkin's disease; melanomas; non-Hodgkin's lymphoma; tumors if specified as malignant; lymphoma; metastasis angiosarcoma; carcinoma; myeloma/multiple myeloma; myelodysplastic syndrome
102. Tumors, cysts or growths (except 101); polyps; osteomyelitis; pre-cancer; neuroma; benign tumors; mole removal; warts; subdural hygroma
103. Skin conditions--any mention except cancer (101) or tumor (102); dermatitis; eczema; rashes; Paget's disease; skin ulcers; bedsores; bullous

pemphigoid; hair loss; pemphigus; seborrheic keratosis; rosacea; alopecia; psoriasis; burns (also use code 194 if available)

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

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

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

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

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

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

159. Other digestive system problems; internal bleeding; hemorrhage; esophagus torn, ruptured or bleeding; swallowing difficulty; feeding tube

Neurological and sensory conditions

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

Reproductive system and prostate conditions

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

Emotional and psychological conditions

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

Miscellaneous

191. Alzheimer's disease; senility, dementia; multi-infarct dementia; memory loss; mixed cognitive disease
192. Dental and gum conditions--any mention
193. Acute infectious diseases; flu; colds; fever; mumps; Dengue fever; Lyme disease; infection, staph infection; methicillin-resistant staphylococcus aureus (MRSA); Epstein-Barr virus; mononucleosis; influenza; measles;

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

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

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

Other symptoms
595. Old age; everything wore out; bedridden; infirmity; natural causes; failure to thrive in older adults
596. Lack of energy/strength; (chronic) fatigue, NFS; don't have get up and go
597. Edema; retaining water; retaining fluids; swelling (location not specified)

996. None, no health condition(s) mentioned
997. Other health condition

998. DK (Don't Know); NA (Not Ascertained)
999. RF (Refused)

B2. Occupation Codes
Equivalent numeric codes follow the alphabetic codes. Either code may be used, depending on the processing method. The abbreviation "pt" means "part" and "n.e.c." means "not elsewhere classified."

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

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

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

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

CMM Computer and Mathematical Occupations
100. Computer Scientists and Systems Analysts
101. Computer Programmers
102. Computer Software Engineers
104. Computer Support Specialists
106. Database Administrators
110. Network and Computer Systems Administrators
111. Network Systems and Data Communications Analysts
120. Actuaries
121. Mathematicians
122. Operations Research Analysts

123. Statisticians
124. Miscellaneous Mathematical Scientists and Technicians

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

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

CMS Community and Social Services Occupations
200. Counselors
201. Social Workers
202. Miscellaneous Community and Social Service Specialists
204. Clergy
205. Directors, Religious Activities and Education
206. Religious Workers, All Other

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

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

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

MED Healthcare Practitioners and Technical Occupations
300. Chiropractors
301. Dentists
303. Dieticians and Nutritionists
304. Optometrists
305. Pharmacists
306. Physicians and Surgeons
311. Physician Assistants
312. Podiatrists
313. Registered Nurses
314. Audiologists
315. Occupational Therapists
316. Physical Therapists
320. Radiation Therapists
321. Recreational Therapists

416. Food Preparation and Serving Related Workers, All Other

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

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

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

OFF Office and Administrative Support Occupations
500. First-Line Supervisors/Managers of Office and Administrative Support
     Workers

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

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

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

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

MIL Military Specific Occupations
980. Military Officer Special and Tactical Operations Leaders/Managers
981. First-Line Enlisted Military Supervisors/Managers
982. Military Enlisted Tactical Ops and Air/Weapons Specialists and Crew members
983. Military, Rank Not Specified (Census only)
999. DK; NA; Don't know; Not ascertained

B3. Industry Codes
Equivalent numeric codes follow the alphabetic codes. Either code may be used, depending on the processing method. Abbreviation "pt" means "part" and "n.e.c." means "not elsewhere classified."

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

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

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

CONSTRUCTION
077. Construction

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

387. Miscellaneous wood product manufacturing
389. Furniture and fixtures
396. Medical equipment and supplies manufacturing
397. Toys, amusement, and sporting goods manufacturing
398. Miscellaneous manufacturing, n.e.c.
399. Not specified manufacturing industries

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

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

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

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

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

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

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

PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
727. Legal services
728. Accounting, tax preparation, bookkeeping and payroll services
729. Architectural, engineering, and related services
737. Specialized design services
738. Computer systems design and related services
739. Management, scientific and technical consulting services

746. Scientific research and development services
747. Advertising and related services
748. Veterinary services
749. Other professional, scientific and technical services

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

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

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

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

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

OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
877. Automotive repair and maintenance
878. Car washes
879. Electronic and precision equipment repair and maintenance

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

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

C. State and Country Codes

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

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19. Maine (ME)
20. Maryland (MD)
21. Massachusetts (MA)
22. Michigan (MI)
23. Minnesota (MN)
24. Mississippi (MS)
25. Missouri (MO)
26. Montana (MT)
27. Nebraska (NE)
28. Nevada (NV)
29. New Hampshire (NH)
30. New Jersey (NJ)
31. New Mexico (NM)
32. New York (NY)
33. North Carolina (NC)
34. North Dakota (ND)
35. Ohio (OH)
36. Oklahoma (OK)
37. Oregon (OR)
38. Pennsylvania (PA)
52. Puerto Rico (PR)
39. Rhode Island (RI)
40. South Carolina (SC)
41. South Dakota (SD)
42. Tennessee (TN)
43. Texas (TX)
44. Utah (UT)
45. Vermont (VT)
53. (U.S.) Virgin Islands
46. Virginia (VA)
47. Washington (WA)
51. Washington, D.C. (DC)
48. West Virginia (WV)
49. Wisconsin (WI)
50. Wyoming (WY)
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C2. OTHER U.S.
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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
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C3. OTHER COUNTRIES
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97. Other Country

98. DK
99. NA
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D. 2020 Production Data Model (DM) Changes

DM Version	Section	Field Name	Summary
7	A	A020TSameSpP	Problem: Respondents are getting into Section S in error when they are still married to same SPP as previous wave but consider themselves separated. This was due to a change in the A020TSameSpP_A assignment. In 2016 and 2018 if an R reported that they were separated at A034, A020 stayed "1." In 2020, if the R is separated, A020 now says "5" which results in the R getting into section S when in previous waves that would not have. Fix: The A020 assignment has been revised to work as it did in 2016 and 2018 (if R reports that they were separated at A034, A020 stays "1.").
7	A	A067_CtyNHome	Problem: When completing interviews, A067, A068, and A251 are clearing out. Fix: Added KEEP statements to these fields so they are no longer cleared out.
4	A	A166_A020TSameSpP_A	Problem: If respondent reports their past wave partner is now their spouse, the question fills are not updating to refer to them as respondents spouse. Fix: Revised fill rules.
2	A	A251	Problem: The City/State/Zip lookup, Don't Know was displaying as an option for some cities that have multiple zip codes, but not all. Fix: Added an instruction to select the closest match to this City/State combination and make a comment that respondent does not know zip code.
9	A	R3_X017ARLName	Problem: There is a bad fill for spouse/partner since we have not yet collected their name. Fix: Programmed to use (spouse/partner) parenthetical instead of actual name.
5	A2	X056AresStat	Problem: There are two cases where x061="32. I don't know this person" but x056 was not assigned "7. Delete." Fix: Changed household member logic to assign x056=7. Delete when x061="32. I don't know this person"
13	All	B000	Problem: If a respondent presses "Home" during a Web interview, they are pushed back to the beginning of section B, and have to key through the whole survey again. Fix: This has been fixed so that nothing happens when the Home key is pressed.
5	B	B055_	Problem: Proxy text should say "We are interested in changes to his/her marital status..." It currently says "changes to your marital status. Fix: Corrected proxy text as specified.
13	C	C011	Problem: There should be a back assignment to C010 when C011=4 or C011=6: C011=4, assign 4 to C010; C011=6, assign 6 to C010. They should then skip out of the rest of the diabetes questions, to C018 BP. Fix: Revised logic for diabetes follow-ups when C011=4 or 6.

DM Version	Section	Field Name	Summary
7	C	C139	Problem: From field interviewer: The question "How much do you weigh?" does not require an answer to continue to the next question. If an interviewer presses enter by mistake twice, the question will be passed without an answer. Fix: Changed field type, and now empty is not allowed in INTERVIEWER ADMINISTERED.
13	C	C210	Problem: Code 4 should only be displayed if it's the same reporter as last wave and R reported having dementia, senility or memory impairment, but was displayed when reporter was not the same as last wave. Fix: Changed logic so code 4 is not displayed unless same reporter as last wave and R was preloaded with dementia, senility or memory impairment.
4	C	C223	Problem: [vol] was showing in code in WEB under certain conditions Fix: Dropped vol from code for WEB
2	C	C223_VigAct	Problem: [Vol] was missing from code 7 for INTERVIEWER ADMINISTERED interviews. Fix: Added missing [Vol] to code 7 for INTERVIEWER ADMINISTERED interviews.
6	C	C252_	Fix: New definitions for Menopause be added to the questionnaire added at C251 and C252.
9	C	C253	Problem: The drop down at this question was presenting issues in both modes: interviewers were unable to enter DK/RF when first arriving at the question, and Web respondents using a small screen were unable to see past the first option or two in the drop down. Fix: Changed this to a coded question for both modes.
8	C	C273	Problem: There is a discrepancy between the B & A and the programmed skip logic for Question C273. The B & A indicates a skip if "C185 not 1" (which would include 5 and blank). However, the programming only skips if C185 = 5 and does not skip if C185 is blank. Fix: This is working as intended, but needed to update the C273 BP in the B&A to reflect that there is an assignment.
9	C	C285	Problem: If someone comes in who has diabetes (z102=1 and z281=1) they aren't asked the diabetes questions. The way it is programmed we assign c010=1 but then they get skipped out of the follow-up at c285. This meant when we went to go make preload for the next year, there were a whole bunch of respondents where c285=. which meant the preload for z281 the next year was missing (when it should have been =1). Fix: Added an assignment at the c285 BP to assign c285=1 if z281=1.
9	C	C288	Problem: Code 7 is not showing for INTERVIEWER ADMINISTERED. Fix: Fixed so code 7 shows for all but Web.
10	COV1	W550	Problem: Needed to adjust the rules to allow WEB respondents who were assigned enhanced face-to-face (EFTF) as preferred mode to enter the COVID section. Fix: Changed rules to allow E-FTF WEB respondents into the COVID section. This also included optimization of some question text and code frames to work for WEB respondents.
10	COV1	W553	Problem: Needed to add condition question text based on new question W644 asking how many tests Fix: Added conditional text

DM Version	Section	Field Name	Summary
			Was: Did the test indicate that you had the virus? Now: IF W644 =1 OR W644= 8 or 9: Did the test indicate that you had the virus? IF W644 =2: Did any of the tests indicate that you had the virus?
10	COV1	W554	Problem: Needed to add conditional question text. Fix: Added new conditional text: Was: When did you get that test? Now: IF W644 = 1 OR 8 OR 9: When did you get that test? IF W644= 2 AND W553=1: What was the date of that positive test? INSTR: Enter the date of the first positive test if there were multiple positive tests. OTHERWISE: What was the date of the most recent test?
11	COV1	W550	Problem: All Web respondents, not just E-FTF Web respondents were getting the COVID section during testing. Fix: All of the cases tested actually were E-FTF, so that's why they were getting the COVID section (correctly). Re-implemented code to ask the COVID section of E-FTF Web respondents.
6	COV1	W550-W643	Problem: To capture valuable information about affects of the coronavirus pandemic we will add new COVID-19 section to the main survey. This new section will be asked after section D and will be administered in English and Spanish for Core self report and living proxy interviews (no Web or Exit).
10	COV1	W644	Problem: New question about how many tests for COVID R took needed to be added. Fix: Added new question: Have you been tested only once, or multiple times? 1. ONCE

DM Version	Section	Field Name	Summary
			2. MULTIPLE TIMES 8. DON'T KNOW 9. REFUSE
12	COV1	W552	Problem: Since the COVID Antibody Test kits are being sent out to all respondents, we want to add an instruction about what the interviewer should do if the respondent asks if they should count the Antibody test. Fix: Added new instruction: INSTR: If the respondent mentions participating in the HRS COVID Antibody Study, ask about testing aside from that.
12	COV1	W554	Problem: Since the COVID Antibody Test kits are being sent out to all respondents, we want to add an instruction about what the interviewer should do if the respondent asks if they should count the Antibody test. Fix: Added new instruction: If the respondent mentions participating in the HRS COVID Antibody Study, ask about testing dates aside from that.
11	COV1	W569	Problem: The code text for "dr. said it was up to me" is missing on screen for INTERVIEWER ADMINISTERED and WEB. Fix: Added code back for both INTERVIEWER ADMINISTERED and WEB.
7	COV1	W575	Problem: Need to add a select all that apply instruction for W575, W632, W635, W638, and W641. Fix: Select all added
7	COV1	W578_	Problem: W578 is limited to ask only people who say they know someone who was diagnosed. Fix: Adjusted code so W578 is asked of all respondents.
8	COV1	W580	Problem: Misspelling "reschedule" on question W580. It is missing the "c" Fix: Corrected typo
8	COV1	W588	Problem: W588 has the word "other" repeated 2x ("other other") Fix: Removed extra "other"
8	COV1	W590	Problem: This question asks if the respondent and their partner received the payment, but there is no probe for if they just say 'yes' instead of identifying which of them received payment. Fix: Added probe instruction: Instr: If necessary, probe: Who received it? INSTR: IF NECESSARY, PROBE: Who received it?
13	COV1	W590	Problem: Now that there is a second round of stimulus checks for COVID economic relief, we need to update the question text. Fix: Revised to reflect 2nd stimulus check.

DM Version	Section	Field Name	Summary
			Now: Because of the coronavirus crisis, earlier this year in late December 2020 and early January 2021 many families received an economic impact payment of up to twelve hundred dollars for individuals, twenty-four hundred dollars for couples, and five hundred dollars for each dependent child six hundred dollars for individuals, twelve hundred dollars for couples, and six hundred dollars for each interviewer dependent child. Have you [or your spouse/partner] received this payment? From update at DM10: Because of the coronavirus crisis, most many families will receive earlier this year many families received an economic impact payment of up to twelve hundred dollars for individuals, twenty-four hundred dollars for couples, and five hundred dollars for each dependent child. Have you [or your spouse/partner] received this payment? Original wording: Because of the coronavirus crisis, most many families will receive an economic impact payment of up to twelve hundred dollars for individuals, twenty-four hundred dollars for couples, and five hundred dollars for each interviewer dependent child. Have you [and your spouse/partner] received this payment?
10	COV1	W596	Problem: Needed "Select all" instruction. Fix: Added instruction for both INTERVIEWER ADMINISTERED and WEB.
10	COV1	W623	Problem: Respondents are answering "no" to "no material hardship" or saying "no to all" after the code options are read to them, which creates a double negative for the "no material hardship" option and is confusing as a result. Suggested a change in wording. Fix: Added clarifying instruction/probe: INST: No hardship means that R has not experienced any hardships. If R answers 'No' when you read out code 7, probe: Do you mean that you did not experience any hardships at all?
10	COV1	W642	Problem: Needed to add new question at the end of the section for all who get the COVID section except proxies about wearing masks. Fix: New question added: How often would you say that people in your area wear masks that cover their nose and mouth when in stores and similar locations? INSTR: PLEASE READ THE RESPONSE OPTIONS TO R

DM Version	Section	Field Name	Summary
			1. MOST OF THE TIME 2. MORE THAN HALF THE TIME 3. HALF THE TIME 4. LESS THAN HALF THE TIME 5. RARELY
10	COV1	W646	Problem: Needed to add new question at the end of the section for all who get the COVID section except proxies about likelihood of getting vaccine. Fix: New question added: It's possible there will be a vaccine for coronavirus in the next several months. How likely would you be to take a vaccine if it were available to you like a flu shot? INSTR: PLEASE READ THE RESPONSE OPTIONS TO R. 1. VERY LIKELY 2. SOMEWHAT LIKELY 3. NOT VERY LIKELY 4. NOT AT ALL LIKELY
13	COV1	W646	Problem: Now that COVID vaccines are available, we need to revise the question text at W646 for both INTERVIEWER ADMINISTERED and WEB. In addition, add a few new questions about vaccinations preceding W646. Fix: Revised W646 question text and added 3 questions preceding it (W670-W673). W646 now: How likely are you to take a coronavirus vaccine when it becomes available to you? It's possible there will be a vaccine for coronavirus in the next several months. How likely would you be to take a vaccine if it were available to you like a flu shot? INSTR: PLEASE READ THE RESPONSE OPTIONS TO R. Original from DM10: It's possible there will be a vaccine for coronavirus in the next several months. How likely would you be to take a vaccine if it were available to you like a flu shot? INSTR: PLEASE READ THE RESPONSE OPTIONS TO R.
10.5	COV1, EOI	W550, W335	Problem: All web respondents are getting the COVID section during testing. Fix: Commented out code that allowed Web EFTF cases into the COVID and EOI.
12	D	D157	Problem: Due to the 2020 election, we need to allow interviewers to mark respondents answer as 'correct' if they answer either Trump or Biden if election results are not decided or if Biden wins on November 3.

DM Version	Section	Field Name	Summary
			Fix: Revised D157 and D158 instructions to accept both presidential and vice presidential nominees as correct answers.
13	D	D157, D158	Problem: Since Biden will be the president Jan 20, need to change the president/vice president answers. Fix: Replaced Trump for Biden and Pence for Harris.
4	D	D170	Problem: There was a KEEP statement in section D that was added to deal with mode switches that was making it so count variables were set to zero instead of null for proxy cases. Fix: A condition was added to only use the KEEP statement for mode switches.
9	D	D338_AnimalString	Problem: When RD338 only has 1s RD198 (Animal Mistakes number) should be assigned 0. Right now, RD198=. for these cases. Fix: D198 programmed to equal zero when D338 only has 1s entered.
12	E	E030	Problem: An issue with X054 always missing for HH members in the loop. This is an issue because without x054, you cannot link the response with the correct HH member. Fix: Revised logic so PNDX is recorded.
7	E	E105_FinHelpToRel	Problem: In Section E asking about financial help to other people such as friends or family such as sibling or nieces and nephews, the question did not have a statement about do not include parents, so respondent included financial help to parents. Later questions then asked about is your mother living, etc. and questions asked about financial help to parents. Usually parents are specifically excluded in the help to friends and other family questions. Fix: For E105 and E111, revised the rules for the "excluding parents" fill so that it shows up if parent(s) are preloaded as alive AND also if X013 or X015 is missing.
8	E	E120	Problem: who is getting E120 Assist. (1) there were 1,236 cases where E120=1 when the R is not a family R. (2) Exits are also incorrectly skipping the assist question (E120). Fix: Added condition to skip non-family respondents, and determined we do not want to ask this question of Exit respondents either, so also skipping them as well.
6	EOI	V900_LeaveBehind	Problem: Due to COVID no interviews were done. The Leave Behind Blaise questions (V900 and V990) were dropped for all FTFE respondents.
5	EOI	V990_LeaveBehindID	Changed program logic so V990 is only displayed if it is empty.
8	EOI	W335	Problem: The final COVID question allowing respondents to make general comments or how they are doing is difficult to administer when doing proxy interview. Fix: Skipped all proxies over this question because they were never intended to get it.
10	EOI	W335	Problem: Needed to revise rules to allow EFTF Web respondents to be asked W335 and new question W336. Fix: Revised rules to allow EFTF Web respondents to be asked W335 and new question W336, and adjusted text for these respondents.

DM Version	Section	Field Name	Summary
6	EOI	W335_COVIDExperience	Problem: Add a new question at the end of the instrument (after modules, before the interviewer Thumbnail section. Fix: Added new question W335_COVIDExperience
6	EOI	W335_COVIDExperience	Problem: Add interviewer instruction so it is clear interviewer should stay on this screen while the respondent talks freely and that the interviewer should not enter 1. Yes or 5. No until R is done speaking. Fix: Added 2 new instructions: INSTR: Remain on this screen while R speaks freely. You may probe for A/E. INSTR: When R is finished speaking, select one of the below responses.
10	EOI	W336	Problem: There is a bad fill for spouse/partner since we have not yet collected their name. Fix: Programmed to use (spouse/partner) parenthetical instead of name for spouses/partners.
8	F	F113	Problem: The descriptor at F113 is slightly misleading. It should be "Which Parent" instead of "Which Sib". Fix: Revised descriptor as specified.
8	G	G015, G022	Problem: Able to enter value other than response options shown Fix: This is because exit has these codes – they do not display in Core, but you can select them. Added signal for when they are selected in core.
8	G	G020	Problem: Respondents are skipping over G020 and all the way to G040 when they should not be. Fix: Revised rules so G021-G036 are no longer erroneously skipped.
8	G	G020	Problem: Should not get G020 when G016=5. Fix: Fixed flow so we no longer get G020 when G016=5.
7	G	G020_HelpWalk	Problem: Respondents who had some difficulty with mobility and no difficulty dressing were getting questions G020 - G036 when they shouldn't have. Fix: Revised rules so these respondents no longer get the additional questions.
8	G	G037	Problem: 14 respondents missing G037 who should have gotten it. They are all living proxy respondents. Based on G037 BP all living proxies should get G037. Fix: Conditions for asking question reordered so all living proxies get it.
6	G	G176_G032_ADLHlprTemp	Problem: Some respondents who reported they received help at one ADL did not get the ADL follow up loop at G176. Fix: Broadened who should get G176, but users need to note more people will get this question now than in previous waves.
4	H	H101_SeniorComplex	Problem: Rules for asking H101 need to be revised and a new intro needs to be added to H102. Fix: Changed the H101 ask rules and added a new intro to H102.

DM Version	Section	Field Name	Summary
			New intro: Earlier you said your house or apartment is part of a retirement community, senior citizens' housing, assisted living, or some other type of housing that offers services for older adults (or someone with a disability).
5	H	H101_SeniorComplex	Problem: There was a flow issue where H101 was erroneously being skipped. Fix: Changed logic so these cases get H101 as they should.
5	H	H192_AssistH	Problem: Received Section H assist question in Web. Fix: Added assist skip for Web.
6	I	I800_FTF	Problem: Because in-person interviews were not conducted due to COVID, no one is getting the Physical Measures/Bio sequence. We want to make sure that FTFE respondents selected to be Phone interviews skip properly, otherwise we'll need to comment out section I. Fix: No fix needed. respondents where X090 =3, but I800=1-Phone are skipping fine.
7	J	J005	Problem: Many people responded 7 (other, specify) to J005 and then mentioned that they were temporary furloughed due to COVID-19 when giving a detailed answer to J006. Fix: Added furlough text to existing "Temporarily laid off" code.
10	J	J045	Problem: Questions were potentially confusing for temporarily laid off/furloughed respondents, so their responses sometimes led them down the wrong path. Fix: Added new question text at J045 for temporarily laid off/furloughed respondents.
11	J	J058	Problem: Empties at J058 are falling through to J059, which can cause a lot of confusion for the respondent. They should skip the same as DK/RFs. Fix: Programmed empties at J058 to skip the same as DK/RFs.
5	J	J166	Problem: "What kind of business do you work in -- that is what do they make or do at your work? What industry do you currently work in?" The question seems a bit confusing when asked twice like this. Fix: For WEB, dropped the second clarification version.
2	J and Q	W777	Problem: An issue was discovered where the PW wave year variable (A114) was set to the wrong year for the 2020 wave, which means we haven't been asking the full range of "eligible" years in DM1. Fix: Changed the A114 (PW wave year) from the incorrect value of 2016 to the correct value of 2018.
7	J2	W427	Problem: Background assignments to W065, W425, W426, W427, and W428 can potentially stop Web interviews when previous answers are changed. Fix: These codes were hidden, and though interviewers could change to a different code because they have an answer box displaying the assigned code, Web just had the background assignment without any way of a respondent to know it was there. For both INTERVIEWER ADMINISTERED and WEB, now displaying the assignment code in the codeframe (only) when an assignment was made.
4	J3	J959	Problem: Special answers were not skipping correctly for WEB.

DM Version	Section	Field Name	Summary
			Fix: Fixed special answer skips for J568, J570, J572, J959, J574, and J576
13	N	N277	Problem: Incorrectly getting N277 when N274=7. Fix: Corrected flow so R skips N277 when N274=7.
3	N	N281_MonthStart	Problem: Month field was not coming up for all years within the last 2 years in CAPI. Fix: Revised rules so month field displays when it should.
4	N	N451_CARECAIDCONSENT	Problem: There were several cases where Z113 and Z277 were missing, but the respondent did not report having Medicaid or Medicare. We still want to ask for permissions because perhaps they do not know they have it or may have it in the future. Fix: Dropped condition that respondent had to have or has Medicaid or Medicare to get the Medicare/Medicaid consent question.
5	N	N451_CARECAIDCONSENT	Problem: Revised the ask rules for N451, then changed them back. Fix: Changed the conditions back to ask if (Z113 NOT 1 OR 9) OR (Z277 NOT 1 OR 9) AND (N001=1 OR N005=1 OR N343 = 1 OR 2).
3	N	N454	Problem: We accidentally added a duplicate field, N454 (it existed as N433_N454). Fix: Changed duplicate field name to N473, leaving the old field N433_N454 alone.
8	N	N483	Problem: The third answer option did not fit with the other 2 options. Fix: Changed 3rd response option from "more than 20 times" to "Más de 20 años"
7	P	P016	Problem: This wave were reported a number of problems relating to a set of questions from P016 to P182 that ask about the likelihood of working in the future. While examining the current Blaise code we realized that no respondents older than 61 can get P199, P181, and P182 and that there are other issues with the skips in this series. Who gets what question depends on the respondent's age, work status and answers to earlier questions in this set. The series includes questions P016, P017, P018, P198, P199, P181, P182, and generally takes the form of "What are the chances you will be doing any work/work full time at X age?" Fix: Modifications were made to the program so that it conforms to intended design.
3	P	P017	Problem: P017 was being skipped in error when respondent is currently working (J021=1). Fix: Added J021=1 to the condition for asking P017.
4	P	P018_	Problem: The rules for asking P018 don't include when P017 is missing. Fix: Revised to Ask if age<65 and P016 is 1-100 and (P017 is 1-100 or if P017 is empty)
7	P	P018_	Problem: P018 should not be skipped if J020=1 but it is skipped. Fix: Reworked flow for P016 - P182.
3	P	P032	Problem: Question and definition phrasing did not match. Fix: Dropped 'or other long-term health care facility' from the definition.

DM Version	Section	Field Name	Summary
3	P	P180	Problem: Percent chance market will go down by 20% or more (P180) was not being asked when percent chance market will be up at all question was zero (P047=0), but should be. Fix: Revised so P180 is asked when P047=0.
10	P	P181	Problem: A discrepancy was found in the hard-coding of this question between modes of language. The Spanish-speaking respondents were being asked about the likelihood or retirement at 65, where the English speakers were being asked about it at age 70. Fix: Changed 65 to 70 in Spanish to match the English.
4	P	P198_	Problem: Age limit is off by one year in text inconsistent in the data: 7/8 skipped as they should be, 1 asked even though should not have been asked. Fix: Revised condition so respondents under 62 get the question, 62 and older do not.
5	T	T259	Added apostrophes after name fill.
7	U	U020_minCurWave U021_maxCurWave	Problem: An issue with min and max values that are stored at U020 and U021. U020 is the min asset value in current wave and U021 is the max asset value in current wave. When an R leaves the stem field empty or DK/RF and goes into the unfolding, the min max value is not being updated at U020 and U021. It was discovered that the calculations only run according to the interviewer administered rules - Web allows empty at stem and the calculation does not run. Fix: Added "or web" to the condition for the unfolding calculation so that it will do the calculation for DK/RF or empty in web.
6	V10	V652_	Problem: Added a probe to the "never, once or twice, monthly, weekly, or daily or almost daily" fields in V10.
4	V3	V202	Problem: skip is not working correctly when the respondent responds 6, No One to SecV.MOD3.V200_. Fix: Fixed to skip correctly.
9	V4	V701	Fixed an issue where respondents over the age of 90 were skipped over the module but erroneously got the intro.
4	V7	V451	Problem: Type needed to be changed for V451 through V458 to 0..100 and V459 needed to allow 3 decimal places. Fix: Revised Type for V451 through V458 to 0..100 and V459 now allows 3 decimal places.
3	V7	V460	Problem: Code was missing which is actually the correct answer. Fix: Added code 3:"They have the same chance"
4	V9	V600	Problem: respondent 90 and older are not supposed to be able to get in to module 9. Fix: Revised the ask age to <91
4	V9	V605	Added the following codes: 6. Didn't plan ahead 7. Live day to day 8. School costs 9. Children's expenses 10. Have difficulty saving

DM Version	Section	Field Name	Summary
			11. Lost my job 12. Business downturn
10	V9	V615	Problem: Added clarifying question before V615. Fix: Added new question about future social security benefits based on respondents work history, and modified some flow surrounding it.
4	V9	V621_	Problem: Code '1' at V621 needed to be changed to "Spouse or partner" Fix: Code '1' changed to "Spouse or partner".
7	W	W311_IWMODE	Problem: W311IwMode and W307_Wassist were being presented on screen to Web respondents but they are INTERVIEWER ADMINISTERED only. Fix: Adjusted code so that Web respondents don't see these questions.
5	W	W314_W306	Problem: A small number of respondents are still receiving social security permissions questions via telephone interviews, despite all respondents enhanced face to face assignments having been removed. Fix: Commented out the SS permissions block.
2	W	W797_VBS	Problem: Due to COVID-19, no VBS appointments will be scheduled at this time, so we need to comment out the VBS sequence (W797, W798, W802, W807, W801, W803, W806 and W808) for all languages. Interviewers will call participants at a later date to discuss VBS consent after it is safe and appropriate to do so. Fix: Commented out VBS