

Health and Retirement Study (HRS)

2022 Core Final, Version 2

July 2026

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, 2022 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 Final Release data from the Health and Retirement Study, 2022 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](#).

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- Report immediately to the Health and Retirement Study at hrrquestions@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 hrrquestions@umich.edu of changes in your electronic mail address, postal address, telephone number, organizational affiliation or organizational status.

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1. Data Description and Usage

1A. Overview

The 2022 HRS Core (Final, Version 2.0) data release consists of data obtained as part of the Health and Retirement Study (HRS), a national longitudinal study of the economic, health, marital, and family status, as well as public and private support systems, of older Americans. The National Institute on Aging provided funding (NIA U01 AG009740), with supplemental support from the Social Security Administration. The Institute for Social Research (ISR) Survey Research Center (SRC) at the University of Michigan conducted the survey.

The 2022 HRS Core (Final, Version 2.0) public release includes respondents from the seven continuing HRS cohorts (HRS, AHEAD, CODA, War Baby, Early Baby Boomer, Mid Baby Boomer, and Late Baby Boomer), as well as **Early Generation X (EGENX) households finalized through December 31, 2023.**

EGENX households finalized on or after January 1, 2024 are considered part of the 2024 HRS data collection. These cases are currently available separately in the [2022 Extended New Cohort data release](#) and will be incorporated into the 2024 HRS Core (Final, Version 1.0) release, where they will be merged with the 2024 HRS panel data.

The 2022 Extended New Cohort data release is provided to give researchers access to the complete EGENX cohort before the HRS 2024 Final Core release. However, because these records will ultimately become part of the 2024 HRS Core, users **should not combine** the EGENX cases included in the 2022 HRS Core (Final, Version 2.0) with those in the 2022 Extended New Cohort to create a single entry-wave file. The EGENX entry cohort spans two HRS data collections (2022 and 2024) and should therefore be treated as two distinct components until the 2024 HRS Core (Final, Version 1.0) is released.

The weighting strategy reflects this design. The 2022 New Cohort will be weighted to represent the full EGENX cohort. In 2024, the initial 2022 EGENX sample will be

combined with the 2022 Extended New Cohort, enrolled in 2024, and together they will be weighted to represent the EGENX cohort. **Accordingly, researchers should not combine the initial 2022 EGENX sample (households finalized through December 31, 2023) with the 2022 Extended New Cohort sample (households finalized on or after January 1, 2024), as doing so would produce an analytically incorrect file and invalidate the weighting scheme.** Weights for 2022 panel respondents are available in the [Cross-Wave Tracker File](#). Weights for the initial 2022 EGENX sample are under development with an expected release of summer 2026. Weights for the 2022 Extended New Cohort will be made available in a future Cross-Wave Tracker release.

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

1B. The Sample Interviewed in 2022

The data collection period pertaining to this public release was March 2022 through December 2023. The HRS sample is comprised of eight sub-samples (HRS, AHEAD, CODA, WAR BABY, EARLY BABY BOOMER, MIDDLE BABY BOOMER, LATE BABY BOOMER and EARLY GEN X).

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.

The newly screened Early Generation X (EGENX) sub-sample consists of people who were born between 1966 and 1971 and whose household was first interviewed in 2022 or 2023 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), 2016 (LBB) or 2022 (EGENX). For more details about the sample, see our [Web site](#).

1C. 2022 Questionnaire Sections

2022 Section	Content
PR	Preload
A	Coverscreen
B	Demographics
C	Physical Health
D	Cognition
E	Family Structure
F	Parents, Siblings and Transfers
G	Functional Limitations and Helpers
H	Housing
I	Physical Measures and Biomarkers

J	Employment
J2	Pensions
J3	Retirement and Social Security
M	Disability
N	Health Services and Insurance
P	Expectations
Q	Assets and Income
R	Asset Change
S	Widowhood and Divorce
T	Wills and Life Insurance
V	Modules
W	Event History, Internet Use and Social Security
Y	Time Calculations
IO	Interviewer Observations
LB	Leave-Behind Questionnaires
TN	Thumbnails

1D. Levels of Files

In the 2022 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 2022 HRS Core (Final, Version 2.0), contains files at seven other levels: household-member-and-child, sibling, helper, transfer-to-child, transfer-from-child, jobs, and pension.

1D1. 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, and R) 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 2022.

1D2. 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 2022.

1D3. 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, H22PR_SB.

1D4. 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.

1D5. 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.

1D6. 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.

1D7. 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.

1D8. 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.

1D9. 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 "H22" for HRS 2022, 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 H22A_R includes variables from Section A (coverscreen) at the respondent level, whereas H22A_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,
- .xml for XML files,
- .csv for CSV 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 36 data files for the 2022 HRS Core (Final, Version 2.0) data release. For example,

- H22A_R.da contains respondent data from Section A,
- H22A_R.sas contains corresponding SAS program statements,
- H22A_R.sas7bdat contains “ready-to-use” data in SAS format
- H22A_R.sps contains corresponding SPSS program statements,
- H22A_R.sav contains “ready-to-use” data in SPSS format
- H22A_R.do contains corresponding Stata DO statements,
- H22A_R.dct contains corresponding Stata dictionary statements,
- H22A_R.dta contains “ready-to-use” data in Stata format, and

- H22A_R.txt contains the ASCII codebook.

3. Data Files

The 2022 HRS Core (Final, Version 2.0) data are distributed in 36 data files. The files are listed below along with the number of cases (#CASES), number of variables (#VARS), and the primary identifiers (IDs). The records in the data files are sorted in order by these primary identifiers.

FILENAME	# CASES	# VARS	FILE LEVEL	IDs
H22A_H	11867	47	household	HHID, SSUBHH
H22E_H	11867	119	household	HHID, SSUBHH
H22H_H	11867	250	household	HHID, SSUBHH
H22PR_H	11867	46	household	HHID, SSUBHH
H22Q_H	11867	752	household	HHID, SSUBHH
H22R_H	11867	115	household	HHID, SSUBHH
H22A_R	15787	38	respondent	HHID, PN, SSUBHH
H22B_R	15787	89	respondent	HHID, PN, SSUBHH
H22C_R	15787	243	respondent	HHID, PN, SSUBHH
H22D_R	15787	294	respondent	HHID, PN, SSUBHH
H22F_R	15787	189	respondent	HHID, PN, SSUBHH
H22G_R	15787	155	respondent	HHID, PN, SSUBHH
H22I_R	15787	190	respondent	HHID, PN, SSUBHH
H22J_R	15787	651	respondent	HHID, PN, SSUBHH
H22J3_R	15787	186	respondent	HHID, PN, SSUBHH
H22LB_R	15787	470	respondent	HHID, PN, SSUBHH
H22M_R	15787	280	respondent	HHID, PN, SSUBHH
H22N_R	15787	378	respondent	HHID, PN, SSUBHH
H22P_R	15787	38	respondent	HHID, PN, SSUBHH
H22PR_R	15787	176	respondent	HHID, PN, SSUBHH
H22S_R	15787	115	respondent	HHID, PN, SSUBHH
H22T_R	15787	114	respondent	HHID, PN, SSUBHH

H22TN_R	15787	20	respondent	HHID, PN, SSUBHH
H22V_R	15787	114	respondent	HHID, PN, SSUBHH
H22W_R	15787	18	respondent	HHID, PN, SSUBHH
H22Y_R	15787	32	respondent	HHID, PN, SSUBHH
H22E_FC	1085	24	transfer-from-child	HHID, SSUBHH
H22E_TC	5151	25	transfer-to-child	HHID, SSUBHH
H22G_HP	4481	32	helper	HHID, PN, OPN
H22PR_P	6656	17	pension	HHID, PN, Pension ID
H22J2_P	8503	186	pension	HHID, PN, Pension ID
H22PR_JB	21750	16	jobs	HHID, PN, JOBID
H22E_MC	52278	30	household member and child	HHID, SSUBHH, OPN
H22PR_MC	61286	26	household member and child	HHID, SSUBHH, OPN
H22F_SB	15770	30	sibling	HHID, PN, OPN
H22PR_SB	15770	16	sibling	HHID, PN, OPN

4. Identification Variables

Identification variables for HRS 2022 are stored in character format.

4A. Primary Identification Variables

Several variables, HHID, SSUBHH, 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. SSUBHH – 2022 Sub-household Identifier

In combination with HHID, SSUBHH uniquely identifies a household at the time of the 2022 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 2022 data collection HHID, SSUBHH and OPN uniquely identify another person in the household member and child files. The variables HHID, PN, and OPN uniquely identify another person in the helper or sibling files. The OPN values in the helper files are derived from the household member and child files. The OPN values in the sibling file are not derived from the household member and child files. Sibling OPN values are intended to be used in association with variables in Section F (only). In general, OPNs are longitudinally consistent for people who were assigned an OPN and never drop out of HRS. If someone assigned an OPN drops out of HRS and later comes back into the study, they are assigned a new OPN. OPN has three-digits.

4B. Primary ID Variables for Datasets at each File Level

Two identifiers uniquely identify records in the

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

Two identifiers uniquely identify records in the

- household-level datasets:
 - 1) HHID (HOUSEHOLD IDENTIFICATION NUMBER)
 - 2) SSUBHH (2022 SUB HOUSEHOLD IDENTIFICATION NUMBER)

Three identifiers uniquely identify records in the

- 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) SSUBHH (2022 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) SSUBHH (2022 SUB HOUSEHOLD IDENTIFICATION NUMBER)
 - 3) OPN (OTHER PERSON NUMBER)

Three identifiers uniquely identify records in the

- o Pension Level Data set
 - 1) HHID (HOUSEHOLD IDENTIFICATION NUMBER)
 - 2) PN (RESPONDENT PERSON IDENTIFICATION NUMBER)
 - 3) Z505 (PENSION TRACKING NUMBER where not empty)

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 where not empty)

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. Secondary Identification Variables for respondent-level, sibling-level, helper-level, job-level and pension-level datasets include the following:

- SSUBHH 2022 SUB HOUSEHOLD IDENTIFICATION NUMBER
- RSUBHH 2020 SUB HOUSEHOLD IDENTIFICATION NUMBER
- SPN_SP 2022 SPOUSE/PARTNER PERSON NUMBER
- SCSR 2022 WHETHER COVERSHEET RESPONDENT
- SFAMR 2022 WHETHER FAMILY RESPONDENT
- SFINR 2022 WHETHER FINANCIAL RESPONDENT

Secondary Identification Variables for household-level, household member or child-level, transfer-from-child-level and transfer-to-child-level datasets include the following:

- SSUBHH 2022 SUB HOUSEHOLD IDENTIFICATION NUMBER
- RSUBHH 2020 SUB HOUSEHOLD IDENTIFICATION NUMBER
- OPN_CS PERSON NUMBER OF COVER SCREEN RESPONDENT
- SPN_FAM 2022 FAMILY RESP PERSON NUMBER
- SPN_FIN 2022 FINANCIAL RESP PERSON NUMBER
- SPN_NCS 2022 NON-COVERSCREEN RESP PERSON NUMBER
- SPN_NFAM 2022 NON-FAMILY RESP PERSON NUMBER
- SPN_NFIN 2022 NON-FINANCIAL RESP PERSON NUMBER

4D. Datasets Including SSUBHH and OPN as Primary Identifiers

When working with datasets including SSUBHH and OPN as primary identifiers -- household-member-and-child-level, it is essential to use SSUBHH 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, SSUBHH is 1, and OPN is 101 is the report about the child from the mother, and the record where HHID is 890121, SSUBHH 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, SSUBHH is 2, and OPN is 151 is for the ex-wife's mother, while the record where HHID is 871231, SSUBHH 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 as one large .zip file, H22core.zip, that contains several smaller .zip files and this data description document, H22dd.pdf.

The individual .zip files for separate download are:

- ASCII data files
 - H22da.zip contains data files
 - H22csv.zip contains CSV files
 - H22xml.zip contains XML files

Note: Some HRS variables (e.g. HHID, PN, OPN, etc.) contain data that have leading zeros. When importing these formats to the application of choice, users should be mindful that leading zeros may be present and will need to account for them so that they are maintained.

Program statements and "ready-to-use" files

- H22sas.zip contains SAS program statements (.sas) and "ready-to-use" files (.sas7bdat)
- H22sps.zip contains SPSS program statements (.sps) and "ready-to-use" files (.sav)
- H22sta.zip contains Stata program statements (.do), dictionary statements (.dct) and "ready-to-use" files (.dta)

Documentation files

- H22cb.zip contains the codebook
- H22qn.zip contains the questionnaire
- H22dd.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:\hrs2022	Files downloaded from Web site
c:\hrs2022\codebook	Unzipped files from H22cb.zip
c:\hrs2022\data	Unzipped files from H22da.zip
c:\hrs2022\qnaire	Unzipped files from H22qn.zip
c:\hrs2022\sas	Unzipped files from H22sas.zip
c:\hrs2022\spss	Unzipped files from H22sps.zip
c:\hrs2022\stata	Unzipped files from H22sta.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 H22A_R.sas go with the H22A_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:\hrs2022\sas" and the data file is located in "c:\hrs2022\data", you can run the file as is. A SAS system file (*.sas7bdat) will be saved to directory "c:\hrs2022\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:\hrs2022\spss" and the data file is located in "c:\hrs2022\data", you can run the file as is. An SPSS system file (*.sav) will be saved to directory "c:\hrs2022\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:\hrs2022\Stata" and the data file is located in "c:\hrs2022\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.

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

All files released by HRS 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.

8. Documentation

There are several types of documentation available for use with the 2022 HRS Core (Final, Version 2.0) data release. These include a codebook and the 2022 questionnaire. In addition, 2022 variables have been added to the [Online Concordance](#).

8A. Codebook

The HRS 2022 Codebook is provided as a series of 36 ASCII text files, as well as a file containing all sections. There is a codebook file corresponding to each data file. Each variable has its own codebook entry. The format of the codebook is, for the most part, consistent with all previous releases.

8A1. Variable Names

Variable names begin with a letter designating the wave of data collection (S for 2022), followed by the section letter, and numbers after the section letter. For example, SC001 where S=2022, 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:

SX007_R RESP FAM/FIN TYPE – UPDATED

SZ077_R PREV WAVE R FIN/FAM TYPE

SX007_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 2022 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, SN219M1 through SN219M5 are 2022 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, SN049_1M1, is a 2022 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., SN025_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, SKW097A1, is a 2022 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, SKW002A, 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 in the future. 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 SX026M (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 reviewed, coded and included in Final data releases. 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 2022 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 2022 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.

9. Additional Notes

The following are miscellaneous additional notes regarding the 2022 HRS Core (Final, Version 2.0). If we become aware of additional issues, they will be posted on our Web site in the [Data Alerts](#) section.

9A. Households with No Family or Financial Respondents

As noted earlier in this document, the data collection design was to have asked most questions of all respondents and some questions of just a designated coverscreen, or family, or financial respondent on behalf of the household. However, occasionally that is not what happened. For some households we did not obtain an interview from a family or financial respondent. There were 674 households that had no family respondent; 275 households had no financial respondent. There are 2 missing

coverscreen respondents in this wave. The household records for these households contain null values for the missing information. Households missing a family or financial respondent can be identified, respectively, by values of "Blank. No family/financial respondent" (in the household record) in the following variables:

SPN_FAM – 2022 FAMILY RESP PERSON NUMBER

SPN_FIN – 2022 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 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 SZ041.

Example Random Entry Assignment Variable from Preload:

Preload Variable from the data file H22pr_h:

```
.....
SZ041  PREASSIGNED UNFOLD RANDOM VALUE - SELF EMPLOYMENT INCOME
      Section: PR   Level: Household   Type: Numeric   Width: 1   Decimals: 0
      Ref: HH.X041_UnfSEmpInc_V
```

UNFOLD ASSIGN - SELF EMPLOYMENT INCOME

```
.....
3986      1. RANDOM ASSIGNMENT 1
3916      2. RANDOM ASSIGNMENT 2
4016      3. RANDOM ASSIGNMENT 3
      2      Blank. Data Missing
```

.....
Example Unfolding Series from section Q that uses RX041 to assign respondents an entry point:

```
.....
SQ016      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

WEB-ADMINISTERED TEXT:

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

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

User Note: The procedures apply to both the interviewer-administered and web-administered text.

```

.....
125      0. Value of Breakpoint
5        5000. Value of Breakpoint
17       5001. Value of Breakpoint
2        10000. Value of Breakpoint
23       10001. Value of Breakpoint
1        25000. Value of Breakpoint
25       25001. Value of Breakpoint
1        100000. Value of Breakpoint
5        100001. Value of Breakpoint
11716    Blank. INAP (Inapplicable); Partial Interview
.....

SQ017          R INCOME FROM SELF EMPLOYMENT - MAX
Section: Q    Level: Household    Type: Numeric    Width: 8    Decimals: 0
Ref: SecQ.RIncome.Q017_
.....
45       4999. Value of Breakpoint
5        5000. Value of Breakpoint
15       9999. Value of Breakpoint
2        10000. Value of Breakpoint
21       24999. Value of Breakpoint
1        25000. Value of Breakpoint
20       99999. Value of Breakpoint
1        100000. Value of Breakpoint
94       99999996. Greater than Maximum Breakpoint
11716    Blank. INAP (Inapplicable); Partial Interview
.....

SQ018          R INCOME FROM SELF EMPLOYMENT - RESULT
Section: Q    Level: Household    Type: Numeric    Width: 2    Decimals: 0
Ref: SecQ.RIncome.Q018_

*

.....
11       0. No Breakpoint values given during interview
28       98. DK (Don't Know); NA (Not Ascertained)
55       99. RF (Refused)
11826    Blank. INAP (Inapplicable); Partial Interview
.....

```

9C. 2022 Unfoldings Issues

Due to a programming issue, some errors were introduced into unfoldings data obtained from interviewer-administered interviews in 2022. 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 2022 Data Collection

There are 6 modules for 2022 HRS. The module data can be found in the file H22V_R. Topical areas of the modules include:

MODULE 1: Boredom Proneness Scale

MODULE 2: Treatment Burden Questionnaire

MODULE 3: Scientific Knowledge and Beliefs

MODULE 4: American Community Study (ACS) Disability Questions

MODULE 5: Informal Care Expectations and Effects on Labor Supply

MODULE 6: Three Factor Moral Foundations Decision Making

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)

Except for 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 2022, HRS administered its third 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. Households previously selected as Web eligible 2018 remain Web eligible as long as they continue to meet eligibility criteria 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). In addition, the 2016 LBB new cohort households are also eligible for Web based on the same eligibility criteria.

In total, 3,317 eligible households were identified. By design, 60% of eligible households were to be assigned to receive a web invitation, with the remainder receiving their usual mode of either telephone or face-to-face. This resulted in 1,989 eligible households receiving the Web invitation and 1,328 eligible households not receiving the Web invitation. The intention was for this assignment to be random across cohorts and households. However, due to a programming error the designation was not random and should not be used to study mode effect in the 2022 wave.

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.

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

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

WEB-ADMINISTERED TEXT:

Now, please think about your life-as-a-whole. How satisfied are you

with it?

1	-8. Web non-response
3444	1. COMPLETELY SATISFIED
6686	2. VERY SATISFIED
4246	3. SOMEWHAT SATISFIED
540	4. NOT VERY SATISFIED
179	5. NOT AT ALL SATISFIED
161	8. DK (Don't Know); NA (Not Ascertained)
12	9. RF (Refused)
587	Blank. INAP (Inapplicable); Partial Interview

Section D Cognition

The variables that comprise the Section D Web Immediate and Delayed Word Recall as described in the tables below.

Variable Name	Immediate Recall Description	Variable Name	Delayed Recall Description
SD182WM #	WEB WORD RECALL IMMED. (where # denotes the multiple mention indicator 1, 2, 3, etc.)	SD183W M#	WEB WORD RECALL DELAYED (where # denotes the multiple mention indicator 1, 2, 3, etc.)
SD174W	WEB NUMBER GOOD - IMMEDIATE	SD184W	WEB NUMBER GOOD - DELAYED
SD175W	WEB NUMBER WRONG - IMMEDIATE	SD185W	WEB NUMBER WRONG - DELAYED
SD176W	WEB NUMBER FORGOTTEN - IMMEDIATE	SD186W	WEB NUMBER FORGOTTEN - DELAYED
SD177W	WEB NONE REMEMBERED - IMMEDIATE - FLAG	SD187W	WEB NONE REMEMBERED - DELAYED
		SD191W	WEB WORDLIST CHECK DID R USE AID

Data for web respondents from the Speed Tests (D237WA, D237WC, D237WT, D238WA, D238WC, D238WT) and the Number series (D216W, D217W, SNSSCORE, SNSSCORESE) are also included in this data release.

9H. Questionnaire Changes

The release package of files that is available to download with this data product contains the “commented version” of the questionnaires that describe in detail all changes made for the 2022 instrument. Data users can identify question text and other changes by searching for “#@” document. The commented box and arrow

questionnaires are available in the download set (h20qn.zip). Data Model changes are described in Appendix D ([Appendix D link](#)).

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 respondents (regardless of mode of interview or preferred language), provided they were not in a nursing home.

9J. Errata and General Notes

Ineligible EGENX and Minority cases

HRS removed respondents and/or households from the 2022 HRS Core (Final, Version 2.0) data that were previously included in a 2022 Core Early data release. These were EGENX or minority respondents/households that were determined to be ineligible.

D432 (Number Series) programming error that affected web respondents

Due to a programming error, variable D432 in HRS 2022 Section D: Cognition had a problem that affected for a subset of web respondents (n=198). This variable is part of the second set of version 2 Number Series items, administered to respondents randomly assigned to version 2 who answered two items correctly in the first set. Because the Number Series follows a block-adaptive design, an error in one second-set item has limited influence on the overall score. The programming error caused the displayed number sequence to appear incorrectly to respondents. For affected cases, HRS imputed values for SD432 and updated SNSSCORE and SNSSCORESE in the

2022 Final Core release. An imputation flag variable was not created, as all non-missing SD432 values are imputed.

Section B Variable SB135 Other Specify Coding

HRS reviewed the “Other Specify” text responses provided by respondents at Question SB135 (Sexual Orientation). HRS coded responses such as “normal” and “woman/man” as “Not Ascertained.”

2022 Self-Administered Questionnaire (SAQ)

Variable LB019 of the SAQ for waves 2006-2012 and 2018-2022 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 names from 2006-2022.

Table: Variable Name by Wave

Question Text	2006	2008	2010	2012	2014	2016	2018	2020	2022
If something can go wrong for me, it will.	KLB019F	LLB019F	MLB019F	NLB019F	OLB018A	PLB018A	QLB018A	RLB018F	SLB018F
I’m always optimistic about my future.	KLB019G	LLB019G	MLB019G	NLB019G	OLB018B	PLB018B	QLB018B	RLB018G	SLB018G
In uncertain times, I usually expect the best.	KLB019H	LLB019H	MLB019H	NLB019H	OLB018C	PLB018C	QLB018C	RLB018H	SLB018H
Overall, I expect more good things to happen to me than bad.	KLB019I	LLB019I	MLB019I	NLB019I	OLB018D	PLB018D	QLB018D	RLB018I	SLB018I
I hardly ever expect	KLB019J	LLB019J	MLB019J	NLB019J	OLB018E	PLB018E	QLB018E	RLB018J	SL018J

things to go my way.									
I rarely count on good things happening to me.	KLB019K	LLB019K	MLB019K	NLB019K	OLB018F	PLB018F	QLB018F	RLB018K	SL018K
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	SL018L
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	SL018M
I don't expect to get what I really want.	KLB019N	LLB019N	MLB019N	NLB019N	OLB018I	PLB018I	QLB018I	RLB018N	SL018N
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	SL018O
Most people dislike putting themselves out to help other people.	KLB019A	LLB019A	MLB019A	NLB019A	N/A	N/A	QLB018K	RLB018A	SLB018A
Most people will use somewhat unfair means to	KLB019B	LLB019B	MLB019B	NLB019B	N/A	N/A	QLB018L	RLB018B	SLB018B

gain profit or an advantage rather than lose it.									
No one cares much what happens to you.	KLB019C	LLB019C	MLB019C	NLB019C	N/A	N/A	QLB018M	RLB018C	SLB018C
I think most people would lie in order to get ahead.	KLB019D	LLB019D	MLB019D	NLB019D	N/A	N/A	QLB018N	RLB018D	SLB018D
I commonly wonder what hidden reasons person may have for doing something nice for me.	KLB019E	LLB019E	MLB019E	NLB019E	N/A	N/A	QLB018O	RLB018E	SLB018E

9K. Summary of Data Model (DM) Changes during 2022 Production

During the field period, changes to the instrument were made 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 Appendix D ([Appendix D link](#)). The variable SVDATE (which 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.

9L. New/Modified Questions in HRS 2022

Note: “codeframe” is the possible value(s) for each variable and a brief explanation of what the codes represent.

Section A

- A256 R HAD COVID WHEN DIED
- A023 PREVIOUS WAVE SP/P ALIVE – asked before A166_020

- A024 MO COUPLE STOP LIVING TOGETHER/DIE (changed codeframe)

Section B

- B138 LANGUAGE SPOKEN
- B139 WHICH LANGUAGE
- B140 WHICH LANGUAGE – SPECIFY
- B041M (changed codeframe)

Section C

- C033 LUNG OXYGEN (changed codeframe)
- C327 COVID VACCINE
- C328 COVID VACCINE MONTH
- C330 COVID VACCINE YEAR
- C331 COVID STATEMENTS
- C332 COVID SYMPTOMS
- C333 HEALTH ISSUES FROM COVID
- C319 FIT OR COLOGUARD TEST
- C320 FIT OR COLOGUARD TEST YR
- C334 PAST SEVEN DAYS - TIRED
- C335 PAST SEVEN DAYS - EXHAUSTION
- C336 PAST SEVEN DAYS - LOW ENERGY
- C337 PAST SEVEN DAYS - FATIGUE LIMITED WORK
- C338 PAST SEVEN DAYS - FATIGUE AND THINKING
- C339 PAST SEVEN DAYS - FATIGUE AND BATHING

Section D

- D108 NO DESCRIPTION (changed codeframe)
- D189 D189 CHECKPOINT R USED AID-SUBTRACTION (changed codeframe)
- D191 WORDLIST CHECK DID R USE AID (changed codeframe)
- D354 DID R USE AID - MEMORY
- D355 DID R USE AID - VOCABULARY
- D356 DID R USE AID - NUMBER USE
- D245 ANIMAL NAME PROBLEMS (changed codeframe)
- D357 R USED AID-NUMBER SERIES
- D358 IW MODE-D (changed codeframe)

- D339 – D353 Trail Making Test

Section E

- E171/E170 Which children (or children-in-law) (changed codeframe)

Section F

- F247 DIFFICULTY PAY MO BILLS - PARENTS
- F248 DIFFICULTY PAY MO BILLS – MOTHER
- F249 DIFFICULTY PAY MO BILLS – FATHER
- F250 DIFFICULTY PAY MO BILLS – SIBLING

Section J

- J073 WHY LEFT EMPLOYER (changed codeframe)
- J076 HOW EMPLOYMENT SITUATION CHANGED (changed codeframe)
- J986 COVID CONCERNS
- J987 COVID CONCERNS SPECIFY
- J967 - J985 EMP CURRENTLY DO ANYTHING
- J607 WHY STOPPED WORKING (changed codeframe)
- K029 WHY LEFT EMPLOYER (changed codeframe)
- L025 WHY LEFT EMPLOYER (changed codeframe)

Section J2

- J812 PCT INVESTED- IN STOCKS
- J988 TARGET DATE LIFE CYCLE FUND

Section N

- N415 Why change Part D (changed codeframe)
- N253_N049 EMPYR BASED INS-WHO COVERED (changed codeframe)
- N431 prescription drug coverage (changed codeframe)
- N069 DENTAL COV - WHICH PREV MENTION PLAN (changed codeframe)
- N073 LTC COV- WHICH PREV MENTION PLAN (changed codeframe)
- N474, N475 Oxygen or Ventilator
- N477, N478, N479, N486, N487 Covid
- N476 Telehealth
- N489, N490, N491 Needed care didn't get it
- N492. N493, N494 Didn't get medical care
- N495, N496, N497, N498, N499 End of life care

Section P - eliminated several variables:

- P166 CHANCE HOME WORTH MORE
- P168 CHANCE HOME GAIN/LOSE X PERCENT NEXT YR
- P015 LIKELIHOOD R WILL FIND ANOTHER JOB
- P123 WORK FT AFTER 62 EQUALLY LIKELY
- P102 EPISTEMIC UNCERTAINTY LIVE TO 75
- P157 LIVE TO 80/85/90/95/100 EQUALLY LIKELY
- P175 PERCENT CHANCE R WILL PAY OUT-OF-POCKET
- P176 PERCENT CHANCE R WILL PAY OUT-OF-POCKET
- P177 PERCENT CHANCE R WILL PAY OUT-OF-POCKET
- P178 PERCENT CHANCE R WILL PAY OUT-OF-POCKET
- P183 CHANCE YOUR FUTURE SOCSEC BENEFITS LESS
- P047 CHANCE MUTUAL FUNDS WORTH MORE NXT YR
- P113 EPISTEMIC UNCERTAINTY STOCKS UP OR DOWN
- P150 MARKET UP/DOWN BY X% NEXT YEAR
- P180 CHANCE MUTUAL FUNDS WORTH BULE-CHIP STOC
- P097 HOW CLOSELY FOLLOW STOCK MARKET
- P185 TEN YEARS FROM NOW STANDARD LIVING RATING

Section Q

- Q518 PAID OFF CRED CARD LAST MO (changed codeframe)
- DEBTS: Q539, Q540, Q541, Q542, Q543, Q544, Q545, Q546, Q547, Q548, Q549, Q550, Q551, Q552, Q553

Section T

- T247 WHO HAS DURABLE POWER OF ATTORNEY

Section W

- W822 SSA Mail Eligible (changed codeframe)
- W307 W Assist (changed codeframe)

Section TN

- TN01 Mode Change (changed codeframe)

Section EOI

- W805, W810-W817
- W821 AGREE VBS

9M. Major Changes to the Instrument

9MA1. Section M

Sections M1 and M2 and were re-written and combined into a single section, M.

9MA2. Treatment of Financial Respondents when Financial Respondent in a couple did not complete a Financial Interview in the Previous Wave

In 2022, to ensure we collect a financial interview for a household when the financial respondent in a couple did not respond to the survey in the previous wave (2020), we added the following conditions to the fin/fam assignment.

- If the financial respondent completed an interview through section Q in the previous wave, we followed the same procedure as previous waves.
- If the financial respondent did not complete an interview through Section Q in the previous wave then:
 - If the coverscreen respondent (CSR) is the preloaded financial respondent, then the CSR will remain as the financial respondent.
 - During the second respondent's interview, if the CSR completed an interview through the end of section Q then the second respondent fin/fam assignment is not changed.
 - Otherwise, the second respondent will be assigned as the financial Respondent.
 - If CSR is not the preloaded financial Respondent, the CSR will be assigned as the financial Respondent.
 - During the second respondent's interview, the second respondent will remain as the financial Respondent.

Note: This new treatment may lead to two financial interviews for one household. If two financial interviews are collected, we retain the financial data of only the original financial respondent.

9MA3. Asset Reconciliation

By design, HRS respondents are asked to resolve discrepancies in the monetary values of assets that they tell us about. In 2022, we eliminated the Asset Reconciliation Section (formerly Section U) that came at the end of the interview, and

started asking reconciliation questions after the appropriate question in Sections H and Q. Reconciliation questions about primary residence, first mortgage on main home and second residence now appear in Section H. Reconciliation questions about businesses or farms, IRAs, stocks, checking/savings, and other personal items of value now appear in Section Q. We no longer ask reconciliation questions about general debts, net trusts, vehicles, CD's, bonds, real estate properties, second mortgages, equity loans, mobile homes, or mortgages on second homes. We summarize below the differences between Asset Reconciliations and Asset Reconciliation Eligibility in 2022 and prior waves.

2020 and Prior

- Respondents could be asked about discrepancies for up to eighteen assets if certain criteria were met
- A global eligibility requirement was used (the difference in Net Worth of household assets must differ by at least \$150,000 between waves.)
- Questions were asked at the end of the interview, not in context
- Eligibility was based on a flat dollar amount difference (if difference between waves was > \$50,000) and this condition being met

Condition 1

- Living respondent
- Previous wave financial interview took place in the prior wave
- Re-interview household
- Same financial reporter as last wave

2022

- Respondents are eligible to be asked about eight types of assets if certain criteria are met
- HRS determined which assets to ask about by cross tabulating assets asked about most often with assets that were frequently reported as incorrect
- Questions are asked in context, immediately following the respondent's report of current wave asset value
- Eligibility criteria include Condition 1 and a new criterion:

Condition 2

- Difference between waves for each asset is greater than or equal to \$50,000
- Difference between waves is greater than the minimum of *either* the previous wave or the current wave. For example, if in the previous wave the asset was \$100k, and current wave it is \$200k – The difference is greater than \$50k, but not greater than the minimum of either wave (100k and 200k)

Beginning in 2022, there are new asset specific requirements

- **Primary Residence:** the respondent cannot have moved homes since prior wave (we want to make sure we are asking them about the same home)
 - We will still ask if they did not have this asset previously and now do
 - We still ask if they had this asset previously and now do not
 - Example: Rented same residence before and now own it
- **Mortgage on Primary Residence:** the respondent cannot have moved homes since prior wave
- **Second Residence:** the respondent cannot have moved second residence since prior wave (we want to make sure we are asking them about the same home)

9MA4. Section Q

We re-wrote the debt sequence in Section Q. In 2020 and prior waves we had a single question that asked about credit cards, medical debit, loans, etc. Beginning in 2022, we broke these into individual questions and added a new question to ask about student loan debt.

9N. Data Changes in this data release

Below we summarize the changes made in this release:

- File B_R: made corrections to variables SB135 (SEXUAL ORIENTATION), SB033 (NUMBER CHILDREN EVER), SB034 (NUMBER LIVING CHILDREN), SB052M (DENOMINATION- MASKED).

- File C_R: made corrections to variable SC139 (WEIGHT IN POUNDS).
- File F_R: made corrections to variable SF001 (MOTHER ALIVE) and SF011 (FATHER ALIVE).
- File PR_JB: made corrections to previous wave employer variables for HHID 136190 and PN 010.
- Removed duplicate lines from the following files: J2_P, E_MC, E_TC, E_FC.
- File PR_MC: made corrections to the following variables
 - SX056_MC RESIDENCY STATUS - HHM/KID - UPDATED
 - SX061_MC RELATIONSHIP TO R - UPDATED
 - SX063_MC RELATIONSHIP TO SPOUSE/PARTNER OF R-UPDATED
 - SX065_MC COUPLENES STATUS OF INDIVIDUAL - HHM/KID UPDATED
 - SX067_MC YEAR BORN - HHM/KID - UPDATED

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 48106-1248

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

11. If You Need to Know More

This document is intended to serve as a brief overview and to provide guidelines to using the 2022 HRS Core (Final, Version 2.0) data. If you have questions or concerns that are not adequately covered here or on our Web site, or if you have any comments, please contact us. We will do our best to provide answers.

11A. HRS Internet Site

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

11B. Contact Information

Web: (<https://hrs.isr.umich.edu/help>)

Help Desk Email: hqsquestions@umich.edu

Mail:

Health and Retirement Study
P.O. Box 1248

Ann Arbor, MI 48106-1248

FAX: (734) 647-1186

Appendix

Appendix A: Examples of Sub-Household and Respondent PN and OPN Assignments

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

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

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

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

A value of 7 indicates respondents from split household reunited¹.

It is important to understand these assignments when you merge records from different waves of the study.

Note: a SUBHH value 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.

Appendix 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

Appendix 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

Appendix 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

Appendix 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

Appendix 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

Appendix 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

Appendix 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.

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)

Appendix 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.

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.

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)

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)

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

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

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

Time 1

Household records

HHID=090123 ASUBHH=0

Respondent records

HHID=090123 PN=010 ASUBHH=0

HHID=090123 PN=020 ASUBHH=0

Time 2

Household records

HHID=090123 CSUBHH=1

HHID=090123 CSUBHH=2

Respondent records

HHID=090123 PN=010 CSUBHH=1

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

HHID=090123 PN=020 CSUBHH=2

Household member/child records

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

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

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

Appendix B: 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

Appendix B1. Health Conditions - Categorical

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

Cancers and tumors; skin conditions

- 101. Cancer--any site or type; leukemia; Hodgkin's disease; melanomas; non-Hodgkin's lymphoma; tumors if specified as malignant; lymphoma; metastasis angiosarcoma; carcinoma; myeloma/multiple myeloma; myelodysplastic syndrome
- 102. Tumors, cysts or growths (except 101); polyps; osteomyelitis; pre-cancer; neuroma; benign tumors; mole removal; warts; subdural hygroma
- 103. Skin conditions--any mention except cancer (101) or tumor (102); dermatitis; eczema; rashes; Paget's disease; skin ulcers; bedsores; bullous pemphigoid; hair loss; pemphigus; seborrheic keratosis; rosacea; alopecia; psoriasis; burns (also use code 194 if available)

Musculoskeletal system and connective tissue

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

Heart, circulatory and blood conditions

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

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

Respiratory system conditions

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

Endocrine, metabolic and nutritional conditions

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

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

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

- 157. Spleen conditions; enlarged spleen
- 159. Other digestive system problems; internal bleeding; hemorrhage; esophagus torn, ruptured or bleeding; swallowing difficulty; feeding tube

Neurological and sensory conditions

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

Appendix B2. Occupation Codes

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

MGR Management Occupations

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

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

BUS Business Operations Specialists

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

FIN Financial Specialists

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

CMM Computer and Mathematical Occupations

- 100. Computer Scientists and Systems Analysts
- 101. Computer Programmers
- 102. Computer Software Engineers
- 104. Computer Support Specialists
- 106. Database Administrators

- 110. Network and Computer Systems Administrators
- 111. Network Systems and Data Communications Analysts
- 120. Actuaries
- 121. Mathematicians
- 122. Operations Research Analysts
- 123. Statisticians
- 124. Miscellaneous Mathematical Scientists and Technicians

ENG Architecture and Engineering Occupations

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

SCI Life, Physical, and Social Science Occupations

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

CMS Community and Social Services Occupations

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

LGL Legal Occupations

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

EDU Education, Training, and Library Occupations

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

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

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

MED Healthcare Practitioners and Technical Occupations

- 300. Chiropractors
- 301. Dentists

- 303. Dietitians and Nutritionists
- 304. Optometrists
- 305. Pharmacists
- 306. Physicians and Surgeons
- 311. Physician Assistants
- 312. Podiatrists
- 313. Registered Nurses
- 314. Audiologists
- 315. Occupational Therapists
- 316. Physical Therapists
- 320. Radiation Therapists
- 321. Recreational Therapists
- 322. Respiratory Therapists
- 323. Speech-Language Pathologists
- 324. Therapists, All Other
- 325. Veterinarians
- 326. Health Diagnosing and Treating Practitioners, All Other
- 330. Clinical Laboratory Technologists and Technicians
- 331. Dental Hygienists
- 332. Diagnostic Related Technologists and Technicians
- 340. Emergency Medical Technicians and Paramedics
- 341. Health Diagnosing and Treating Practitioner Support Technicians
- 350. Licensed Practical and Licensed Vocational Nurses
- 351. Medical Records and Health Information Technicians
- 352. Opticians, Dispensing
- 353. Miscellaneous Health Technologists and Technicians
- 354. Other Healthcare Practitioners and Technical Occupations

HLS Healthcare Support Occupations

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

PRT Protective Service Occupations

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

395. Lifeguards and Other Protective Service Workers

EAT Food Preparation and Serving Occupations

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

CLN Building and Grounds Cleaning and Maintenance Occupations

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

PRS Personal Care and Service Occupations

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

SAL Sales Occupations

- 470. First-Line Supervisors/Managers of Retail Sales Workers
- 471. First-Line Supervisors/Managers of Non-Retail Sales
- 472. Cashiers

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

OFF Office and Administrative Support Occupations

- 500. First-Line Supervisors/Managers of Office and Administrative Support Workers
- 501. Switchboard Operators, Including Answering Service
- 502. Telephone Operators
- 503. Communications Equipment Operators, All Other
- 510. Bill and Account Collectors
- 511. Billing and Posting Clerks and Machine Operators
- 512. Bookkeeping, Accounting, and Auditing Clerks
- 513. Gaming Cage Workers
- 514. Payroll and Timekeeping Clerks
- 515. Procurement Clerks
- 516. Tellers
- 520. Brokerage Clerks
- 521. Correspondence Clerks
- 522. Court, Municipal, and License Clerks
- 523. Credit Authorizers, Checkers, and Clerks
- 524. Customer Service Representatives
- 525. Eligibility Interviewers, Government Programs
- 526. File Clerks
- 530. Hotel, Motel, and Resort Desk Clerks
- 531. Interviewers, Except Eligibility and Loan
- 532. Library Assistants, Clerical
- 533. Loan Interviewers and Clerks
- 534. New Account Clerks
- 535. Order Clerks
- 536. Human Resources Assistants, Except Payroll and Timekeeping
- 540. Receptionists and Information Clerks
- 541. Reservation and Transportation Ticket Agents and Travel Clerks
- 542. Information and Record Clerks, All Other
- 550. Cargo and Freight Agents
- 551. Couriers and Messengers
- 552. Dispatchers
- 553. Meter Readers, Utilities
- 554. Postal Service Clerks
- 555. Postal Service Mail Carriers
- 556. Postal Service Mail Sorters, Processors, and Processing Machine Operators
- 560. Production, Planning, and Expediting Clerks

- 561. Shipping, Receiving, and Traffic Clerks
- 562. Stock Clerks and Order Fillers
- 563. Weighers, Measurers, Checkers, and Samplers, Recordkeeping
- 570. Secretaries and Administrative Assistants
- 580. Computer Operators
- 581. Data Entry Keyers
- 582. Word Processors and Typists
- 583. Desktop Publishers
- 584. Insurance Claims and Policy Processing Clerks
- 585. Mail Clerks and Mail Machine Operators, Except Postal Service
- 586. Office Clerks, General
- 590. Office Machine Operators, Except Computer
- 591. Proofreaders and Copy Markers
- 592. Statistical Assistants
- 593. Office and Administrative Support Workers, All Other

FFF Farming, Fishing, and Forestry Occupations

- 600. First-Line Supervisors/Managers/Contractors of Farming, Fishing, and Forestry Workers
- 601. Agricultural Inspectors
- 602. Animal Breeders
- 604. Graders and Sorters, Agricultural Products
- 605. Other Agricultural Workers
- 610. Fishers and Related Fishing Workers
- 611. Hunters and Trappers
- 612. Forest and Conservation Workers
- 613. Logging Worker

CON Construction Trades

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

- 671. Fence Erectors
- 672. Hazardous Materials Removal Workers
- 673. Highway Maintenance Workers
- 674. Rail-Track Laying and Maintenance Equipment Operators
- 675. Septic Tank Servicers and Sewer Pipe Cleaners
- 676. Miscellaneous Construction and Related Workers

EXT Extraction Workers

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

RPR Installation, Maintenance, and Repair Workers

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

762. Other Installation, Maintenance, and Repair Workers

PRD Production Occupations

- 770. First-Line Supervisors/Managers of Production and Operating Workers
- 771. Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
- 772. Electrical, Electronics, and Electromechanical Assemblers
- 773. Engine and Other Machine Assemblers
- 774. Structural Metal Fabricators and Fitters
- 775. Miscellaneous Assemblers and Fabricators
- 780. Bakers
- 781. Butchers and Other Meat, Poultry, and Fish Processing Workers
- 783. Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
- 784. Food Batchmakers
- 785. Food Cooking Machine Operators and Tenders
- 790. Computer Control Programmers and Operators
- 792. Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
- 793. Forging Machine Setters, Operators, and Tenders, Metal and Plastic
- 794. Rolling Machine Setters, Operators, and Tenders, metal and Plastic
- 795. Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
- 796. Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
- 800. Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
- 801. Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
- 802. Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
- 803. Machinists
- 804. Metal Furnace and Kiln Operators and Tenders
- 806. Model Makers and Patternmakers, Metal and Plastic
- 810. Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic
- 812. Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
- 813. Tool and Die Makers
- 814. Welding, Soldering, and Brazing Workers
- 815. Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
- 816. Lay-Out Workers, Metal and Plastic
- 820. Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
- 821. Tool Grinders, Filers, and Sharpeners
- 822. Metalworkers and Plastic Workers, All Other
- 823. Bookbinders and Bindery Workers
- 824. Job Printers
- 825. Prepress Technicians and Workers
- 826. Printing Machine Operators
- 830. Laundry and Dry-Cleaning Workers
- 831. Pressers, Textile, Garment, and Related Materials
- 832. Sewing Machine Operators
- 833. Shoe and Leather Workers and Repairers
- 834. Shoe Machine Operators and Tenders
- 835. Tailors, Dressmakers, and Sewers
- 836. Textile Bleaching and Dyeing Machine Operators and Tenders
- 840. Textile Cutting Machine Setters, Operators, and Tenders
- 841. Textile Knitting and Weaving Machine Setters, Operators, and Tenders
- 842. Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
- 843. Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
- 844. Fabric and Apparel Patternmakers

845. Upholsterers
846. Textile, Apparel, and Furnishings Workers, All Other
850. Cabinetmakers and Bench Carpenters
851. Furniture Finishers
852. Model Makers and Patternmakers, Wood
853. Sawing Machine Setters, Operators, and Tenders, Wood
854. Woodworking Machine Setters, Operators, and Tenders, Except Sawing
855. Woodworkers, All Other
860. Power Plant Operators, Distributors, and Dispatchers
861. Stationary Engineers and Boiler Operators
862. Water and Liquid Waste Treatment Plant and System Operators
863. Miscellaneous Plant and System Operators
864. Chemical Processing Machine Setters, Operators, and Tenders
865. Crushing, Grinding, Polishing, Mixing, and Blending Workers
871. Cutting Workers
872. Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
873. Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
874. Inspectors, Testers, Sorters, Samplers, and Weighers
875. Jewelers and Precious Stone and Metal Workers
876. Medical, Dental, and Ophthalmic Laboratory Technicians
880. Packaging and Filling Machine Operators and Tenders
881. Painting Workers
883. Photographic Process Workers and Processing Machine Operators
884. Semiconductor Processors
885. Cementing and Gluing Machine Operators and Tenders
886. Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
890. Cooling and Freezing Equipment Operators and Tenders
891. Etchers and Engravers
892. Molders, Shapers, and Casters, Except Metal and Plastic
893. Paper Goods Machine Setters, Operators, and Tenders
894. Tire Builders
895. Helpers--Production Workers
896. Production Workers, All Other

TRN Transportation and Material Moving Occupations

900. Supervisors, Transportation and Material Moving Workers
903. Aircraft Pilots and Flight Engineers
904. Air Traffic Controllers and Airfield Operations Specialists
911. Ambulance Drivers and Attendants, Except Emergency Medical Technicians
912. Bus Drivers
913. Driver/Sales Workers and Truck Drivers
914. Taxi Drivers and Chauffeurs
915. Motor Vehicle Operators, All Other
920. Locomotive Engineers and Operators
923. Railroad Brake, Signal, and Switch Operators
924. Railroad Conductors and Yardmasters
926. Subway, Streetcar, and Other Rail Transportation Workers
930. Sailors and Marine Oilers
931. Ship and Boat Captains and Operators
933. Ship Engineers
934. Bridge and Lock Tenders
935. Parking Lot Attendants
936. Service Station Attendants

- 941. Transportation Inspectors
- 942. Other Transportation Workers
- 950. Conveyor Operators and Tenders
- 951. Crane and Tower Operators
- 952. Dredge, Excavating, and Loading Machine Operators
- 956. Hoist and Winch Operators
- 960. Industrial Truck and Tractor Operators
- 961. Cleaners of Vehicles and Equipment
- 962. Laborers and Freight, Stock, and Material Movers, Hand
- 963. Machine Feeders and Off Bearers
- 964. Packers and Packagers, Hand
- 965. Pumping Station Operators
- 972. Refuse and Recyclable Material Collectors
- 973. Shuttle Car Operators
- 974. Tank Car, Truck, and Ship Loaders
- 975. Material Moving Workers, All Other

MIL Military Specific Occupations

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

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

Appendix B3. Industry Codes

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

AGRICULTURE, FORESTRY, FISHING, AND HUNTING

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

MINING

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

UTILITIES

- 057. Electric power generation transmission and distribution
- 058. Natural gas distribution

- 059. Electric and gas and other combinations
- 067. Water, steam, air-conditioning, and irrigation systems
- 068. Sewage treatment facilities
- 069. Not specified utilities

CONSTRUCTION

- 077. Construction

MANUFACTURING

- 107. Animal food, grain, and oilseed milling
- 108. Sugar and confectionery products
- 109. Fruit and vegetable preserving and specialty food manufacturing
- 117. Dairy product manufacturing
- 118. Animal slaughtering and processing
- 119. Retail bakeries
- 127. Bakeries except retail
- 128. Seafood and other miscellaneous foods n.e.c.
- 129. Not specified food industries
- 137. Beverage manufacturing
- 139. Tobacco manufacturing
- 147. Fiber, yarn, and thread mills
- 148. Fabric mills, except knitting
- 149. Textile and fabric finishing and coating mills
- 157. Carpets and rugs manufacturing
- 159. Textile product mills except carpets and rugs
- 167. Knitting mills
- 168. Cut and sew apparel manufacturing
- 169. Apparel accessories and other apparel manufacturing
- 177. Footwear manufacturing
- 179. Leather tanning and products, except footwear manufacturing
- 187. Pulp, paper, and paperboard mills
- 188. Paperboard containers and boxes
- 189. Miscellaneous paper and pulp products
- 199. Printing and related support activities
- 207. Petroleum refining
- 209. Miscellaneous petroleum and coal products
- 217. Resin, synthetic rubber and fibers, and filaments manufacturing
- 218. Agricultural chemical manufacturing
- 219. Pharmaceutical and medicine manufacturing
- 227. Paint, coating, and adhesives manufacturing
- 228. Soap, cleaning compound, and cosmetic manufacturing
- 229. Industrial and miscellaneous chemicals
- 237. Plastics product manufacturing
- 238. Tire manufacturing
- 239. Rubber products, except tires, manufacturing
- 247. Pottery, ceramics, and related products manufacturing
- 248. Structural clay product manufacturing
- 249. Glass and glass product manufacturing
- 257. Cement, concrete, lime, and gypsum product manufacturing
- 259. Miscellaneous nonmetallic mineral product manufacturing
- 267. Iron and steel mills and steel product manufacturing
- 268. Aluminum production and processing
- 269. Nonferrous metal, except aluminum, production and processing

- 277. Foundries
- 278. Metal forgings and stampings
- 279. Cutlery and hand tool manufacturing
- 287. Structural metals and tank and shipping container manufacturing
- 288. Machine shops; turned product; screw nut and bolt manufacturing
- 289. Coating, engraving, heat treating and allied activities
- 297. Ordnance
- 298. Miscellaneous fabricated metal products manufacturing
- 299. Not specified metal industries
- 307. Agricultural implement manufacturing
- 308. Construction mining and oil field machinery manufacturing
- 309. Commercial and service industry machinery manufacturing
- 317. Metalworking machinery manufacturing
- 318. Engines, turbines, and power transmission equipment manufacturing
- 319. Machinery manufacturing, n.e.c.
- 329. Not specified machinery manufacturing
- 336. Computer and peripheral equipment manufacturing
- 337. Communications, audio, and video equipment manufacturing
- 338. Navigation, measuring, electrometrical, and control instruments manufacturing
- 339. Electronic component and product manufacturing, n.e.c.
- 347. Household appliance manufacturing
- 349. Electrical machinery, equipment, and supplies manufacturing, n.e.c.
- 357. Motor vehicles and motor vehicle equipment manufacturing
- 358. Aircraft and parts manufacturing
- 359. Aerospace product and parts manufacturing
- 367. Railroad rolling stock manufacturing
- 368. Ship and boat building
- 369. Other transportation equipment manufacturing
- 377. Sawmills and wood preservation
- 378. Veneer, plywood, and engineered wood product manufacturing
- 379. Prefabricated wood buildings and mobile homes manufacturing
- 387. Miscellaneous wood product manufacturing
- 389. Furniture and fixtures
- 396. Medical equipment and supplies manufacturing
- 397. Toys, amusement, and sporting goods manufacturing
- 398. Miscellaneous manufacturing, n.e.c.
- 399. Not specified manufacturing industries

WHOLESALE TRADE

- 407. Motor vehicles, parts and supplies wholesalers
- 408. Furniture and home furnishing wholesalers
- 409. Lumber and other construction materials wholesalers
- 417. Professional and commercial equipment and supplies Wholesalers
- 418. Metals and minerals, except petroleum, wholesalers
- 419. Electrical goods wholesalers
- 426. Hardware, plumbing and heating equipment, and supplies wholesalers
- 427. Machinery, equipment, and supplies wholesalers
- 428. Recyclable material wholesalers
- 429. Miscellaneous durable goods wholesalers
- 437. Paper and paper product wholesalers
- 438. Drugs, sundries, and chemical and allied product Wholesalers
- 439. Apparel, fabrics, and notions wholesalers
- 447. Groceries and related product wholesalers

- 448. Farm product raw material wholesalers
- 449. Petroleum and petroleum product wholesalers
- 456. Alcoholic beverage wholesalers
- 457. Farm supplies wholesalers
- 458. Miscellaneous nondurable goods wholesalers
- 459. Not specified wholesale trade

RETAIL TRADE

- 467. Automobile dealers
- 468. Other motor vehicle dealers
- 469. Auto parts, accessories, and tire stores
- 477. Furniture and home furnishings stores
- 478. Household appliance stores
- 479. Radio, TV, and computer stores
- 487. Building material and supplies dealers
- 488. Hardware stores
- 489. Lawn and garden equipment and supplies stores
- 497. Grocery stores
- 498. Specialty food stores
- 499. Beer, wine, and liquor stores
- 507. Pharmacies and drug stores
- 508. Health and personal care, except drug, stores
- 509. Gasoline stations
- 517. Clothing and accessories, except shoe, stores
- 518. Shoe stores
- 519. Jewelry, luggage, and leather goods stores
- 527. Sporting goods, camera, and hobby and toy stores
- 528. Sewing, needlework and piece goods stores
- 529. Music stores
- 537. Book stores and news dealers
- 538. Department stores
- 539. Miscellaneous general merchandise stores
- 547. Retail florists
- 548. Office supplies and stationary stores
- 549. Used merchandise stores
- 557. Gift, novelty, and souvenir shops
- 558. Miscellaneous retail stores
- 559. Electronic shopping and mail-order houses
- 567. Vending machine operators
- 568. Fuel dealers
- 569. Other direct selling establishments
- 579. Not specified retail trade

TRANSPORTATION AND WAREHOUSING

- 607. Air transportation
- 608. Rail transportation
- 609. Water transportation
- 617. Truck transportation
- 618. Bus service and urban transit
- 619. Taxi and limousine service
- 627. Pipeline transportation
- 628. Scenic and sightseeing transportation
- 629. Services incidental to transportation

- 637. Postal Service
- 638. Courier and messengers
- 639. Warehousing and storage

INFORMATION

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

FINANCE AND INSURANCE

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

REAL ESTATE AND RENTAL AND LEASING

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

PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES

- 727. Legal services
- 728. Accounting, tax preparation, bookkeeping and payroll services
- 729. Architectural, engineering, and related services
- 737. Specialized design services
- 738. Computer systems design and related services
- 739. Management, scientific and technical consulting services
- 746. Scientific research and development services
- 747. Advertising and related services
- 748. Veterinary services
- 749. Other professional, scientific and technical services

MANAGEMENT, ADMINISTRATIVE AND SUPPORT, AND WASTE MANAGEMENT SERVICES

- 757. Management of companies and enterprises
- 758. Employment services
- 759. Business support services
- 767. Travel arrangement and reservation services
- 768. Investigation and security services
- 769. Services to buildings and dwellings
- 777. Landscaping services

- 778. Other administrative and other support services
- 779. Waste management and remediation services

EDUCATIONAL SERVICES

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

HEALTH CARE AND SOCIAL ASSISTANCE

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

ARTS, ENTERTAINMENT, AND RECREATION

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

ACCOMMODATIONS AND FOOD SERVICES

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

OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)

- 877. Automotive repair and maintenance
- 878. Car washes
- 879. Electronic and precision equipment repair and maintenance
- 887. Commercial and industrial machinery and equipment repair and maintenance
- 888. Personal and household goods repair and maintenance
- 889. Footwear and leather goods repair
- 897. Barber shops
- 898. Beauty salons
- 899. Nail salons and other personal care services
- 907. Dry cleaning and laundry services
- 908. Funeral homes, cemeteries and crematories
- 909. Other personal services
- 916. Religious organizations

- 917. Civic, social, advocacy organizations, and grantmaking and giving services
- 918. Labor unions
- 919. Business, professional, political, and similar Organizations
- 929. Private households

PUBLIC ADMINISTRATION AND ACTIVE DUTY MILITARY

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

Appendix C: State and Country Codes

Appendix C1. STATES

- 01. Alaska (AK)
- 02. Alabama (AL)
- 53. American Samoa, Guam
- 03. Arizona (AZ)
- 04. Arkansas (AR)
- 05. California (CA)
- 06. Colorado (CO)
- 07. Connecticut (CT)
- 08. Delaware (DE)
- 51. Dist. of Columbia (DC)
- 09. Florida (FL)
- 10. Georgia (GA)
- 53. Guam (GU)
- 11. Hawaii (HI)
- 12. Idaho (ID)
- 13. Illinois (IL)
- 14. Indiana (IN)
- 15. Iowa (IA)
- 16. Kansas (KS)
- 17. Kentucky (KY)
- 18. Louisiana (LA)
- 19. Maine (ME)
- 20. Maryland (MD)
- 21. Massachusetts (MA)
- 22. Michigan (MI)
- 23. Minnesota (MN)

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

C2. OTHER U.S.

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

C3. OTHER COUNTRIES

- 97. Other Country

- 98. DK
- 99. NA

Appendix D. 2022 Production Data Model (DM) Changes (as of 1/31/2024)

DM Version	Section	Field Name	Summary
7	All	B036	Problem: At all fields where there is a year field, the upper bound is currently 2023, which will likely be an issue when NC cases for 2022 continue into 2024 for all "year" fields. Fix: All year fields changed to allow 2024
7	C	C270	Problem: There were some flow issues in CAWI caused by a fix to the heart condition sequence in Data Model 6. Fix: Fixed these flow issues
7	M	M103	Problem: M103 codes 5 and 6 are skipping to M106 Branchpoint, but they should skip to M105. Fix: Revised skips
7	M	M118	Problem: We assigned too many people to M118=5. We need to modify the assignment criteria to include that they must currently have a work limiting disability in addition to currently working. Fix: Added work limiting disability condition to assignment.
7	N	N351	Problem: N351 was incorrectly asked when Medicaid or Medicare was not an HMO or Managed Care Plan. Fix: Now asked only of HMO or Managed Care Plans
7	T	T047, T250	Problem: Questions about parents DPOA for healthcare were incorrectly based on response to T250. Fix: Changed the logic to allow these to appear regardless of T250 response.
6	A	A124	Problem: Exit was missing the nursing home QxQ. Fix: Added missing QxQ to Exit.
6	C	C024, C040, C226, C260, C263, C266	Problem: When a respondent left the field empty in Web, they were not skipping to the correct place. Fix: Updated the logic for these fields so empties follow the same flow as a refusal.
6	C	C324	Problem: When a respondent left the field empty in Web or DK/RF in CAPI, they were not skipping to the correct place. Fix: Updated the logic so empties, DKs and RFs flow correctly.

6	EOI	W802_VB S_MakeA ppt	Problem: The time displayed was off by an hour. Fix: This was due to daylight savings time. Appears to be working correctly now.
6	EOI	W807	Problem: Need to change the text of the instruction and code 5. Fix: Revised instruction and code 5 text: Instruction was: [INSTR: If you were unable to make an appointment, select '5' and explain that ExamOne will contact the Respondent within approximately 3 weeks to set up the appointment.] Now: [INSTR: If you were unable to reach an ExamOne scheduler, select '5' and explain that ExamOne will contact the Respondent within approximately 3 weeks to set up the appointment.] Code 5 was: 5. UNABLE TO MAKE APPOINTMENT Now: 5. UNABLE TO REACH AN EXAMONE SCHEDULER
6	J	J982	Problem: This question was not multiple mention, but should be. Fix: Made J982 a multiple mention codeframe, but had to change it to new variable J990 to avoid harmful changes.
6	M	M219	Problem: This question was not multiple mention, but should be. Fix: Made J219 a multiple mention codeframe, but had to change it to new variable M219_DM6 to avoid harmful changes.
6	N	N350	Problem: Respondents not covered by Medicare but receiving Medicaid through an HMO were incorrectly skipping to N023 after N350 when they should have gone to N014. Fix: Corrected flow for this situation.
6	N	N443_N1 80	Problem: "per month" was erroneously dropped from the question text for Data Models prior to Data Model 6. Fix: Adding back "per month"
6	N	N474	Problem: Code 2. Yes; Ventilator (and oxygen) was incorrect, and ventilator instruction was missing. Fix: Code 2 was updated, and missing instruction added.
6	N	N477	Problem: A couple of respondents who moved out of a nursing home facility after covid started (after February, 2020) should have been asked N477 but did not. Fix: Fixed logic to ask these Respondents N477 under these conditions.

6	N	N490	Problem: Don't Knows at N489 were falling through to N490 though they should not. Fix: Fixed logic to skip Don't Knows at N489 over N490.
6	P	P181, P182 and P199	Problem: Flow for the 3 refusals rule was not working properly -- if there are 3 refusals in a row for this section, they should jump out of the section, but were not. Fix: Fixed refusal assignment for P181, P182 and P199.
6	P	P181	Problem: Flow for the 3 refusals rule was not working properly -- if there are 3 refusals in a row for this section, they should jump out of the section, but were not. Fix: Added some missing code at P198.
6	S	S039, S048	Problem: In Web, the S039 and S048 Other Specifys were not allowing you to specify when other response options were also selected unless you moved forward then backed up. Fix: Made some template adjustments so this would work properly.
5	N	N037	Problem: Error with flow leading up to N037. Some respondents getting N037 when they shouldn't and some not getting it when they should. Fix: Modified code to correct flow issues
5	N	N062	Problem: A few respondents skipping N062 when they shouldn't. Fix: Modified code to correct flow issues
5	J	J982	Problem: Codeframe should be multiple mention but is not. Fix: In order to prevent a harmful change, to solve this issue we added a keep to J982 but it won't be asked anymore and created a new variable J990 that is the same as J982 but with the change
4	A	A071	Problem: The option to change financial/family respondent status (A053) was incorrectly being skipped when the financial respondent's last interview year was in 2021 (X039=2021). Fix: Corrected Blaise to ask financial/family Respondent status (A053) of financial respondents who were last interviewed after 2019.
4	A2	A090	Problem: In the household member Summary (A228) there was an extra column "Lives with R" vive con Respondent in the summary that should not be there. This was only an issue for Spanish. Fix: Removed this extra column for Spanish.
4	C	C070	Problem: Question flow within the arthritis sequence was off. Fix: Corrected flow so that C070=5, Don't Know, or Refused are not asked about rheumatoid arthritis, all that get into the sequence get the new joint surgery question.
4	C	C110	Problem: New respondents were being skipped over the cholesterol question. Fix: Corrected condition so new respondents always get cholesterol question.

4	C	C117	Problem: Some exit respondents were skipping over smoking the last 2 years of their life question C117. Fix: added ask condition for C117.
4	C	C118	Problem: Exits were not being asked the new vaping sequence. Fix: Added vaping sequence for exits after C118.
4	C	C120	Problem: Respondents who report that they never smoked cigarettes (C120=95) were skipping the new vaping questions. Fix: Added the condition for these Respondents to be asked vaping questions.
4	C	C123	Problem: Respondents who no longer smoke but don't know how many cigarettes they used to smoke (C123=DK) were skipping the new vaping questions. Fix: Added the condition for these Respondents to be asked vaping questions.
4	C	C273	Problem: Respondents who reported dementia previous wave, but this interview is with a different reporter were being assigned having dementia at C273 instead of asked. Fix: Added condition to ask (not assign) C273 for different reporter from previous wave.
4	C	Z288	Problem: Respondents who reported weakened immune system in previous wave were being asked this wave, but should have skipped. Fix: Fixed preload reference in the code so these Respondents will skip being asked in current wave if they reported having condition the previous wave.
4	D	D349	Problem: Some cases who refused to do the Trail Making test had valid data for timing on the seconds though they should skip the section if they refuse. Fix: Corrected so refusals at practice and main Trail Making tests (D340, D343, D346, and D349) skip to the "any problems" question, D351.
4	D	D358	Problem: Respondent was getting the mode of interview question (D358) in the wrong order, getting it directly after the aid in number use question (D356) before moving on to D200. Fix: Added some missing rules around D358 so it is always asked just before the number series.
4	G	G217_	Problem: New questions G217 and G218 had been swapped and the order was fixed in Data Model 3, but the question text was wrong - G217 should be "help with dressing" but it said "help with walking." G218 should be "help with walking" and said "help with dressing" Fix: Corrected text for both G217 and G218. G217 now says "help with dressing", and G218 now says "help with walking".
4	H	H192	Problem: Some Respondents were not getting the H assist question and they should have. Fix: Corrected the code so that all interviewer assisted interviews are asked the assist question.

4	J2	J352	Problem: Fewer Respondents seemed to get J352 than the questionnaire suggests. They should be asked of all active plans. Fix: Corrected the code so that all active plans are asked J352.
4	M	M101	Problem: New Respondents who never worked for pay but said it was not because of a health condition (M100=5). were erroneously not asked if they have any impairment or health problem that limits the kind or amount of paid work they can do (M101). Fix: Corrected so that these Respondents are asked M101.
4	M	M289_	Problem: Respondents who applied for SSDI but only (M283=1) were erroneously asked about SSI (M289). Fix: Corrected so these Respondents are not asked M289.
4	N	N477	Problem: Respondents who live in a nursing home and have not reported moving out of that nursing home were erroneously asked if concern about COVID-19 was a reason for moving out of the nursing home (N477). Fix: Corrected so these Respondents are not asked N477.
4	P	P009	Problem: P009 – the summary variable that keeps track of whether or not the respondent’s first three answers, whatever they may be, are all “don’t know” or “refused – was not always correctly assigning, sometimes assigning a 0 when at least 1 of the first 3 questions had a valid value. Fix: Corrected so P009 is assigned 0 only when all 3 of the first 3 questions asked are either DK or RF.
3	A	A033_SpI nNHome	Problem: The on-screen definition and QxQ didn't fully address questions interviewers had related to nursing homes. Fix: Modified the QxQ for all CAPI languages and CAWI as noted below (Change in CAPS). CAPI In order to consider that Respondent is living in a nursing home or other health care facility, all of the services listed in the definition on screen must be provided. OUR INTENTION HERE IS TO REFLECT WHAT A FACILITY PROVIDES TO ALL OR SOME OF ITS RESIDENTS, REGARDLESS OF WHETHER THE Respondent USES ANY SERVICE. We want to include only people living in a nursing home or other health care facility permanently, or at least for the long term, not people who are in for a couple of weeks recuperating from an operation. CAWI For this question, we are interested in long-term or permanent stays in a nursing home or other health care facilities that provide all of the services listed in the definition to SOME OR ALL OF its residents, REGARDLESS OF WHETHER YOU USE ANY SERVICE.

			Persons who are in for a short-term stay (e.g., for rehabilitation or recuperation from surgery or an illness) should answer "No" to this question.
3	A	A110TSto phouseAs signments	Problem: A070 was not being asked of some 2nd Respondents who were Financial Respondents which caused them to skip out of questions in section H. Fix: Revised rules so A070 is being asked correctly.
3	A	A124_Plac eDied	Problem: From field interviewers: The on-screen definition and QxQ didn't fully address questions interviewers had related to nursing homes. Fix: Added the following "new" QxQ (similar to parts of A167): CAPI We want to include only people living in a nursing home or other health care facility permanently, or at least for the long term, not people who are in for a couple of weeks recuperating from an operation. To be considered a nursing home, all of the services listed in the definition on screen must be provided. Our intention is to reflect what a facility provides to all or some of its residents, regardless of whether the Respondent uses a service or not.
3	A	A167_A02 8_RInNH ome	Problem: The on-screen definition and QxQ didn't fully address questions interviewers had related to nursing homes. Fix: Modified the QxQ for all CAPI languages and CAWI as noted below (Change in CAPS). CAPI We want to include only people living in a nursing home or other health care facility permanently, or at least for the long term, not people who are in for a couple of weeks recuperating from an operation. To be considered a nursing home, all of the services listed in the definition on screen must be provided. OUR INTENTION IS TO REFLECT WHAT A FACILITY PROVIDES TO ALL OR SOME OF ITS RESIDENTS, REGARDLESS OF WHETHER THE Respondent USES A SERVICE OR NOT. For other types of facilities that provide only some or none of the services, answer 'yes' to A167 and then select "assisted living" or some other type of facility in A237. If the facility provides different services to different residents or different parts of the facility, choose the type of facility in which the respondent currently lives. CAWI For this question we want to include only people living in a nursing home or other health care facility permanently, or at least for the long term, not people who are in for a couple of weeks recuperating from an operation.

			To be considered a nursing home, all of the services listed in the definition on screen must be provided to all or some of the residents. OUR INTENTION IS TO REFLECT WHAT A FACILITY PROVIDES, REGARDLESS OF WHETHER YOU USE ANY SERVICE. If you live in another type of facility that provides only some or none of the services, answer 'yes' to this question and then choose "assisted living" or some other type of facility in the follow-up question. If the facility you live in provides different services to different residents or different parts of the facility, choose the type of facility in which you are currently living.
3	A	A230_SpI nNHome	Problem: From Field Iwers: The on-screen definition and QxQ didn't fully address questions interviewers had related to nursing homes. Fix: Added the following "new" QxQ to all relevant CAPI languages and CAWI, too (similar to parts of A167): CAPI We want to include only people living in a nursing home or other health care facility permanently, or at least for the long term, not people who are in for a couple of weeks recuperating from an operation. To be considered a nursing home, all of the services listed in the definition on screen must be provided. Our intention is to reflect what a facility provides to all or some of its residents, regardless of whether the Respondent uses a service or not. CAWI For this question we want to include only people living in a nursing home or other health care facility permanently, or at least for the long term, not people who are in for a couple of weeks recuperating from an operation. To be considered a nursing home, all of the services listed in the definition on screen must be provided to all or some of the residents. Our intention is to reflect what a facility provides, regardless of whether you use any service.
3	A	X029_2nd ResCty	Problem: In comment analysis, found that for the last couple waves a Respondent had reported that they did not have a second residence. Blaise was copying preload and not updating the changed status to the final table. Fix: Changed to stop the assignment of a second home when Respondent no longer has a second home.
3	A, N, P	A167_A02 8, A124, A033, A230, N114, P032	Problem: Per Field Interviewer: The use of the term "provides" in the nursing home definition generates confusion for Respondents and interviewers since they are unsure whether we mean that the facility "is able to provide" or they "deliver" the services, as in they utilize them.

			Fix: Modified the definition per the below (change in CAPS) at A167_A028, A124, A033, A230, and P032 for all languages, including CAWI. (Note it was decided not to change the definition at N114): DEFINITION: By "nursing home or other long-term health care facility", we mean a facility that provides all of the following services for SOME OR ALL OF its residents: 24-hour nursing assistance and supervision, dispensing of medication, personal assistance, and room & meals. Spanish: Spanish DEF: Al decir "una residencia con personal médico para personas de la tercera edad, deshabilitados y otros enfermos crónicos u otro tipo de institución de cuidado médico a largo plazo " nos referimos a un lugar que provee los siguientes servicios para algunos o todos sus residentes: administración de medicinas, asistencia y supervisión de enfermeras las 24 horas del día, asistencia en las necesidades personales, cuarto y comidas.
3	C	C321	Problem: Respondents who reported in current interview that they smoke cigarettes (C117 = 1) were skipping over the new vaping questions (starting with C321). Fix: Revised the rules so that these Respondents get the new vaping questions.
3	C	C321	Problem: Reinterview Respondents who reported in a past wave that they have smoked cigarettes (Z205=1) were skipping the question of whether they smoke cigarettes now. Fix: Revised the rules so that these Respondents were asked whether they smoke cigarettes now.
3	C	C330	Problem: Date of last covid shot was allowing out of range answers before 2020 and after the current date. Fix: Added signals for answers before 2020 and after the current date.
3	E	E081	Problem: E081 appeared to be asked when E079 = don't know, though it should have been skipped. Fix: Added condition to skip E081 when E079 = don't know.
3	E	E160_Any KidMove	Problem: E163 appeared to be asked when it was a new cohort household, or the household changed main residence, though it should have been skipped. Fix: Added condition to skip E163 when new cohort household, or the household changed main residence.
3	G	G207_HaveDriven	Problem: When Respondents said they can't drive (C037=no), they were being asked follow-up questions about driving, though they shouldn't. Fix: Revised condition so only Respondents that can drive will be asked the follow-up questions about driving.
3	G	G217_	Problem: New questions G217 and G218 appeared to be swapped in order. Fix: Revised flow so G217 and G218 are asked at the correct places.

3	H	H102_	Problem: Flow issue. Too many Respondents were being skipped over H102 -- only R's who reported living in a healthcare facility at A237 were being asked H102. Fix: Revised rules for asking H102
3	H	H134	Problem: Flow issue. DEP Respondents living in other healthcare facility (A237 <> 1) were not getting the assist screen H192 Fix: Revised rules for asking assist (H192).
3	H	H166_HomeValue2nd	Problem: Respondents who reported they have the same 2nd home in A were not getting into the asset reconciliation loop after H166 when they should. Fix: Removed the unnecessary conditions that were erroneously causing these R's to skip.
3	M	M160_	Problem: "special equipment" was duplicated in the question text. Fix: Fixed fill so the question now says "did you have special equipment to help you do your job?" instead of "did you have special equipment special equipment to help you do your job?".
3	M	M161_	Problem: "you with" was duplicated in the question text. Fix: Fixed fill so the question now says "did you have someone help you with the parts of your job..." instead of "did you have someone help you with you with the parts of your job...".
3	M	M214	Problem: Missing question text after "You said your employer did not provide you with". Fix: Fixed so it now fills with the missing accommodation.
3	M	M236	Problem: From interviewer feedback: We were erroneously using the current month fill for reinterviews instead of the month of their previous wave interview. Fix: Changed to use the month of their previous wave interview for reinterviews.
3	M	M265_	Problem: There were several comments indicating "Year given is before PW month/year" signals were appearing for new Respondents on "ever received" questions, understandably creating confusion. Fix: Dropped this signal for new Respondents at: M265 M269 M272 M295 M299 M302 M306 M314 M318 M321 M328

			M275 M255 M252 M249 M244 M240
3	N	N134_Out SurgLst2Y rs	Problem: Respondents who moved out of a nursing home were erroneously not being asked ask if they moved out of a nursing home after Covid started (N477-N488). Fix: Revised condition to ask N477-N488 when they moved out of a nursing home during the pandemic.
3	N	N255_N1 33_WhiCh ldNH1_A	Problem: There were a significant amount of R's over the age of 65 not being asked new questions N486-N488, though all Respondents over 65 (exit and living) should get them. Fix: Revised condition to ask N486- N488 of anyone over 65.
3	N	N437_Ho wlongDa	Problem: There was an instruction "If Respondent doesn't know the month please select a season from the bottom of the list." that needed to be dropped from the days/months hospice services were in place before Respondents death questions. Fix: Dropped instruction from N437 and N438.
3	N	N473_	Problem: The flow within the main insurance plan sequence was incorrect, and interviewer administered interviews were allowing empties at all 3 time options. Fix; Added a signal if interviewer left all 3 time options empty, and revised rules within the sequence.
3	N	N476_Tel ehealth	Problem: Exit Respondents were erroneously able to get the telehealth question (N476). Fix: Added condition to skip exit Respondents.
3	V3	V313	Problem: The variable label was incorrect. Fix: Revised label to read "Science supported"
3	V3	V318	Problem: The variable label was incorrect. Fix: Revised label to read "Quality of education"
3	V5	V520_	Problem: Flow issue. V520 was asked when employer allows a flexible schedule, though it is only supposed to be asked if Respondents employer does not allow a flexible schedule (V501 =5). Fix: Revised rules for asking V520 is only asked if Respondents employer does not allow a flexible schedule.
3	V5	V530_	Problem: Flow issue. Respondents current work status was a condition for getting V530, but should not be. Fix: Dropped the current work status as a condition for getting V530.

2	A	PUA158_ NewCohor tNotEligab le	Problem: Eligible Respondent case was terminated Single Respondent with preloaded YOB 1958. Updated YOB is 1970. This case was being terminated even though Respondent had an eligible YOB. Normally, this shouldn't be possible because Single Respondent with preloaded YOB that is ineligible should be terminated in the screener but this case is one of the EGENX cases that had a spouse that was removed. Fixes: Flow corrected for special Gen Xers: 1. Added a new code (2) to the preload variable Z290. The new code will be assigned to 2019 Egenx cases where the spouse was dropped (about 80 HHs). 2. Added a condition around A158 that makes any HHs where Z290=2 eligible regardless of their age. If they are truly not age eligible, they will be dropped or turned into a pretest case by DPT.
2	B	B014	Problem: From above, needed to add reference to Z290=2 to other fields that use Z290. Fix: Added reference to code 2 at: B014 B028 B035 B039 B041 B078_B047 B054
2	B	B014	Problem: The first interviewer instruction was displayed in Spanish for English language. Fix: Instruction changed to English
2	C	C303	Problem: Time spent sitting could only be answered either in minutes or hours, not a combination, like 4.5 hours. Fix: Now allow both minutes and hours
2	D	D104	Problem: In Word List, unable to delete X-wrong word when accidentally entered more than once. Fix: This was accidentally introduced when fixing another issue, but has been fixed so it is again working correctly.
2	D	D242_NSI ntro_4	Problem: Number series instructions for interviewer assisted were referring to 'empty boxes' instead of 'blank'. Fix: Corrected text.
2	EOI	W798_VB S	Problem: 'Thank you for agreeing to participate'/ExamOne's appointment scheduling statement was missing for Interviewer assisted interviews. Fix: Added statement English: Thank you for agreeing to participate. In 1-2 weeks an ExamOne representative will contact you to schedule an appointment.

			If you have further questions about this request, you may contact the HRS project team toll free at the University of Michigan at 1-866-611-6476 (For Spanish, only difference is the telephone number 1-800-643-7605)
2	F and C	F251	Problem: New question F251 (Any family or friends die from Covid) is very abrupt and out of place where it appears at the end of Section F. Decision to move this question to Section C, right after C333 administered to everyone, except living and exit proxies. Fix: Moved F251 to Section C, right after C333.
2	G	G041_Diff Meals	Problem: Intro text that was supposed to have been moved from dropped question G040 was not showing at G041 for CAPI or CAWI. Fix: Added intro text from dropped G040.
2	J2	J352	Problem: The [have you been/were you] had been accidentally commented out. Fix: Added fill back.
2	V5	V000_ModuleIntro	Problem: Respondents over 65 were getting the Module 5 intro,V000, though they should have been skipped completely over the section. Fix: Added condition to jump Respondents over 65 over V000.
2	W	W311_IW MODE	Problem: CAWIs were erroneously getting W311. Fix: Added condition to jump CAWI Respondents.
2	W	W311_IW MODE	Problem: Ineligible Respondents were erroneously getting W311. Fix: Added condition to jump Ineligible Respondents.