HEALTH AND RETIREMENT STUDY
2020 HRS Exit
Final, Version 1.0
September 2023

Data Description and Usage

Conditions of Use

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

- Make no attempts to identify study participants.
- Not to transfer HRS Public Release data to any third party other than staff or students for whom you are directly responsible except as indicated below.
- Not to allow others to use your username and password to access this site.
- To certify the destruction of any downloaded Public Release data file as well as any data files derived from the downloaded file when requested to do so by the Health and Retirement Study.
- To include the following citation in any research reports, papers, or publications based on Public Release data:

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

In references:
"Health and Retirement Study, 2020 HRS Exit 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 data from the Health and Retirement Study, [INSERT DATASET NAME], sponsored by the National Institute on Aging (grant number NIA U01AG009740) and conducted by the University of Michigan. These data have not been cleaned and may contain errors that will be corrected in the Final Public Release version of the dataset."

- Please note that although it is necessary to include the above citations to the HRS in any publications, it is not necessary to associate your publications with the HRS grant in PubMed.
- Provide information regarding any research product (dissertation, thesis, journal article, book, book chapter, report, etc.) based on data obtained from the Health and Retirement Study by sending an electronic copy to hrspublications@umich.edu.
- Report immediately to the Health and Retirement Study at hrsquestions@umich.edu any disclosure of study participant identity as well as any discovery of flaws or errors in the data or documentation files.
- Notify the Health and Retirement Study through use of the update function provided at this site or by electronic mail directed to hrsquestions@umich.edu of changes in your electronic mail address, postal address, telephone number, organizational affiliation or organizational status.

Contents

Data Description and Usage

1. Overview

The 2020 HRS Exit (Final, Version 1.0) data release consists of data obtained as part of the Health and Retirement Study (HRS), a national longitudinal study of the economic, health, marital, and family status, as well as public and private support systems, of older Americans. The National Institute on Aging provided funding (NIA U01AG009740), 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 current release of the 2020 HRS Exit (Final, Version 1.0) has 1,266 respondents and 1,037 variables. An Exit Interview is attempted with a "proxy informant" for panel members who have died. To the greatest extent possible, proxy informants are knowledgeable about the health, family, and financial situation of the deceased (often the proxy is a widow, widower, or some other family member). The content of the 2020 HRS Exit interview is similar to the 2020 Core (or living) interview. As such, the 2020 HRS Exit data are amenable to answering researchers' questions concerning medical care, expenditures, how assets are distributed following death, and family decision-making during the latter part of life.

By receiving the data 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 Section 9. Obtaining the Data for additional details.

1a. The Sample Interviewed in 2020

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

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

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

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

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

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

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

1b. 2020 Questionnaire Sections

The content of the 2020 HRS Exit data collection instrument includes the following topical areas.

2020 Section	Content
PR	Preload
A	Coverscreen
B	Demographics
C	Physical Health
D	Cognition
E	Family Structure and Transfers
G	Functional Limitations and Helpers
J	Employment
N	Health Services and Insurance
T	Wills and Life Insurance
IO	Interviewer Observations
Y	Time Calculations

1c. Levels of Files

In the 2020 HRS Exit Questionnaire, most questions were asked of all respondents. In addition to the respondent-level files, the 2020 HRS Exit (Final, Version 1.0), contains files at four other levels: household-member-and-child, helper, transfer-to-child, and transfer-from-child.

1c1. Respondent Level Files

Respondent-level files contain questions that were asked of all proxy respondents about the deceased respondent. The files contain one record for each respondent who provided a 2020 HRS Exit interview via proxy.

1c2. Household Member and Child Level File

This file contains characteristics about household members, children, and siblings. The information comes from the X20PR_MC file, and contains one record for each household member, child, or sibling.

1c3. Helper Level File

This file contains information provided by each exit proxy about the deceased respondent's helpers. A helper may be a person or organization that was reported by the proxy as providing help with ADLs or IADLs in Section G of the 2020 HRS Exit questionnaire. The helper file X20G_HP contains one record for each helper.

1c4. Transfer-To-Child Level File

This file contains information provided by the exit proxy about transfers of money to children or grandchildren. The file X20E_TC contains one record for each transfer to a child or grandchild. Transfers to children are discussed in Section E – Family Structure and Transfers.

1c5. Transfer-From-Child Level File

This file contains information provided by the exit proxy about transfers of money from children or grandchildren. The file X20E_FC contains one record for each transfer from a child or grandchild. Transfers from children are discussed in Section E of the 2020 interview.

2. File Naming Conventions

Files are named beginning with "X20" for HRS 2020 HRS Exit, followed by a letter (or two) designating the questionnaire section. A separator, "_", and then one or two letters designating the level will follow the section letter designator.

R for respondent-level,
MC for household-member-and-child-level,
HP for helper-level,
TC for transfer-to-child-level, and
FC for transfer-from-child-level files.

For example, the file X20A_R includes variables from section A (coverscreen) at the respondent level, and file X20E_TC includes variables from section E at the monetary transfer-to-child level.

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

.da for data files,
.sas for SAS program statements,

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

One of each of these file types is provided for each of the 16 data files for the 2020 HRS Exit (Final, Version 1.0) data release. For example,

X20A_R.da contains respondent data from Section A,
X20A_R.sas contains corresponding SAS program statements,
X20A_R.sas7bdat contains "ready-to-use" data in SAS format
X20A_R.sps contains corresponding SPSS program statements,
X20A_R.sav contains "ready-to-use" data in SPSS format
X20A_R.do contains corresponding Stata DO statements,
X20A_R.dct contains corresponding Stata dictionary statements,
X20A_R.dta contains "ready-to-use" data in Stata format, and
X20A_R.txt contains the ASCII codebook

3. Data Files

The 2020 HRS Exit (Final, Version 1.0) data are distributed in 16 data files. The files are listed below along with the number of cases (N), number of variables (NV), and the primary identifiers (IDS). The records in the data files are sorted in order by these primary identifiers.

The 2020 HRS Exit data are provided in ASCII format, with fixed-length records. Use associated SAS, SPSS, or STATA program statements to read the data into the analysis package of your choice.

Respondent level files: PRIMARY IDS = HHID PN
- X20PR_R N=1266 NV=92
- X20A_R N=1266 NV=104
- X20B_R N=1266 NV=21
- X20C_R N=1266 NV=81
- X20D_R N=1266 NV=61
- X20E_R N=1266 NV=23
- X20G_R N=1266 NV=107
- X20J_R N=1266 NV=34
- X20N_R N=1266 NV=300
- X20T_R N=1266 NV=424
- X20IO_R N=1266 NV=42
- X20Y_R N=1266 NV=17

Household-Member-and-Child level file: PRIMARY IDS = HHID XRSUBHH OPN
- X20PR_MC N=7,653 NV=20

Transfer-to-child level file: PRIMARY IDS = HHID XRSUBHH OPN
- X20E_TC N=331 NV=19

Transfer-from-child level file: PRIMARY IDS = HHID XRSUBHH OPN
- X20E_FC N=192 NV=17

Helper level file: PRIMARY IDS = HHID PN OPN
- X20G_HP N=2,909 NV=27

4. Identification Variables

Identification variables for HRS 2020 HRS Exit (Final, Version 1.0) are stored in character format.

4a. Primary Identification Variables

Several variables, HHID, XRSUBHH, PN, and OPN are used in various combinations to uniquely identify the five different levels that comprise this data release.

4a1. HHID – Household Identification Number

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. XRSUBHH – 2020 Sub-Household Identifier

In combination with HHID, XRSUBHH uniquely identifies a household at the time of the 2020 data collection. Sub-household identifiers can be different at each wave due to dissolution or reconstitution of a household (e.g. divorce, separation, marriage, or death). XRSUBHH has one digit. In the 2020 HRS Exit data, XQSUBHH will be either 3 or 4.

4a3. PN – Person Number

In combination with HHID, PN uniquely identifies a respondent. PNs are unique within an original household (HHID). The PN assigned to a particular respondent does not change across waves. PN has three digits.

4a4. OPN – Other Person Number

In the 2020 data collection HHID, XRSUBHH, and OPN uniquely identify another person in the household member and child files; HHID, PN, and OPN uniquely identify another person in the helper files. OPN has three digits.

4b. Primary Identification Variables for Datasets at Each of the Five Levels

Two identifiers uniquely identify records in the
- Respondent level datasets:

1) HHID HOUSEHOLD IDENTIFICATION NUMBER
2) PN PERSON NUMBER

Three identifiers uniquely identify records in the
- Helper level datasets:

1) HHID HOUSEHOLD IDENTIFICATION NUMBER
2) PN PERSON NUMBER
3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the
- Household-member-and-child level dataset:

1) HHID HOUSEHOLD IDENTIFICATION NUMBER
2) XRSUBHH 2020 SUB-HOUSEHOLD IDENTIFICATION NUMBER
3) OPN OTHER PERSON NUMBER

Three identifiers uniquely identify records in the
- Transfer-to-child level and

- Transfer-from-child level datasets:

  1) HHID HOUSEHOLD IDENTIFICATION NUMBER
  2) XRSUBHH 2020 SUB-HOUSEHOLD IDENTIFICATION NUMBER
  3) OPN OTHER PERSON NUMBER

4c. Secondary Identification Variables

In addition to the primary identification variables that uniquely identify records in a dataset, secondary identification variables that allow links to other datasets are provided. The secondary identification variables can be used to link the 2020 HRS Exit data with Core data from previous waves, or to link a deceased respondent with data from their surviving spouse or partner.

Secondary Identification Variables for
- Respondent level and
- Helper level datasets:

  1) QSUBHH 2018 SUB-HOUSEHOLD IDENTIFICATION NUMBER
  2) XRPN_SP 2020 SPOUSE/PARTNER PERSON NUMBER

Secondary Identification Variables for
- Household-member-and-child level,
- Transfer-from-child level and
- Transfer-to-child level datasets:

  1) QSUBHH 2018 SUB-HOUSEHOLD IDENTIFICATION NUMBER

5. Distribution Files and Directory Structure

5a. Distribution Files

The files are packaged for download from our Web site as a series of .zip files.

The individual files for separate download are:

ASCII data files
X20da.zip contains data files.

Program statements and "ready-to-use" files
X20sas.zip contains SAS program statements (.sas) and "ready-to-use" files (.sas7bdat)
X20sps.zip contains SPSS program statements (.sps) and "ready-to-use" files (.sav)
X20sta.zip contains Stata program statements (.do), dictionary statements (.dct) and "ready-to-use" files (.dta)

Documentation files
X20cb.zip contains the codebook.
X20qn.zip contains the questionnaire.
X20dd.pdf - this document.

5b. Directory Structure

While a particular setup is not required for using the 2020 HRS Final Exit files, if the following directory structure is used, then no changes to the path name in the data descriptor files are necessary. If you use a different structure, change the directory references in the distribution files.

Directory	Contents
c:\x2020\	Files downloaded from HRS Web site
c:\x2020\codebook	Unzipped files from x20cb.zip
c:\x2020\data	Unzipped files from x20da.zip
c:\x2020\qnaire	Unzipped files from h20qn.zip
c:\x2020\sas	Unzipped files from x20sas.zip
c:\x2020\spss	Unzipped files from x20sps.zip
c:\x2020\stata	Unzipped files from x20sta.zip

Decompress the selected .zip files into the appropriate subdirectories.

6. Program Statements and Ready to Use Files

The data are provided as SAS (.sas7bdat), SPSS (.sav) and Stata (.dta) "ready-to-use" files and in ASCII format. Each ASCII data file comes with associated SPSS, SAS, or STATA program statements to read the data. Files containing SPSS statements are named with a .SPS extension, those with SAS statements with a .SAS extension, and those with STATA statements with .DO and .DCT extensions.

Files are named beginning with the same prefix as the corresponding data file. For example, SAS statements in the file X20A_R.SAS go with the X20A_R.DA data file.

6a. Using the Files with SAS

In order to create a SAS system file for a particular dataset, two file types must be present:

.SAS program statement files and
.DA data files.

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

If the *.SAS file is located in "c:\x2020\sas" and the data file is located in "c:\x2020\data", you can run the file as is. A SAS system file (*.SD2 or *.SAS7BDAT) will be saved to the "c:\x2020\sas" directory.

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

6b. Using the Files with SPSS

In order to create an SPSS system file for a particular dataset, two file types must be present:

.SPS program statement files and
.DA data files.

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

If the *.SPS file is located in "c:\x2020\spss" and the data file is located in "c:\x2020\data", you can run the file as is. An SPSS system file (*.SAV) will be saved to the "c:\x2020\spss" directory.

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

6c. Using the Files with STATA

In order to use STATA with a particular dataset, the following three file types must be present:

.DCT files,
.DO files and
.DA data files.

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

If the *.DO and *.DCT files are located in "c:\x2020\stata" and the data file is located in "c:\x2020\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 running the files.

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

7. Documentation

There are several types of documentation available for use with the 2020 HRS Exit (Final, Version 1.0) data release. These include a codebook, the 2020 box-and-arrow questionnaire, online question concordance and this data description, which includes a list of master codes.

7a. Codebook

The HRS 2020 HRS Exit Codebook is provided as a series of 16 individual ASCII text files, as well as a single file containing all sections. There is a codebook file corresponding to each data file, and a complete codebook that includes all sections. Each variable has its own codebook entry. The format of the codebook is, for the most part, consistent with all previous releases.

7a1. Variable Names

Variable names begin with two letters, the first of which is "X" to indicate the Exit data the second denotes the wave of data collection (XR for 2020 HRS Exit). These are then followed by the section letter and numbers after the section letter. For example, XRC030 where XR=2020 HRS Exit, C=Section C (physical health), and 030 is the variable number. Variables from the preload section contain either "X" or "Z" as section prefix letters. The "X" section prefix indicates a variable that is updated by data collected in later sections of the questionnaire, whereas the "Z" section prefix indicates preloaded data that were not changed by subsequent answers to questions. For example, XRZ007 (PREV WAVE R FIN/FAM TYPE) signifies the Family/Financial Type assigned from the previous wave's interview, whereas XRX007 (RESP FAM/FIN TYPE – UPDATED) indicates the current wave Family/Financial Type, which was updated based on responses in the 2020 interview.

7a1a. Multiple Response and Looped Variables

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

Simple multiple mention variables take the form: (wave prefix) + (section letter) + (variable number) + (mention number). For example, XRC021M1 through XRC021M7 are 2020 variables from section C with one through six mentions.

Simple loop variables (without a multiple mention) have an underscore (_) in their name and a suffix that designates the loop, e.g., XRN025_1.

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 are retained.

7a1b. Masked Variables

To protect the confidentiality of the information that respondents provide, a number of variables have been masked, or are simply not included in the 2020 HRS Exit (Final, Version 1.0) public dataset. Names, addresses, days of birth, information on geographical relocation, and similar variables are not included in publicly released files. Some of these variables may be made available to analysts as restricted data. See our Web site for details.

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

The names of variables that were masked for confidentiality end in the letter "M"; for example, variable XRX026M (1ST ADDRESS STATE – MASKED). In the 2020 HRS Exit Final Release, the following variables are masked:

Variable	Label
XRX026M	1ST ADDRESS STATE - MASKED
XRX030M	2ND ADDRESS STATE - MASKED
XRA126M	R DIED - STATE - MASKED
XRA129M	R DEATH CERTIFICATE - STATE - MASKED
XRA133M1M	CAUSE OF DEATH - MASKED- 1
XRA133M2M	CAUSE OF DEATH - MASKED- 2
XRA068M	REGION FACILITY LOCATED - MASKED
XRA076M	CURRENT RESIDENCE STATE - MASKED
XRA081M	OTHER RESIDENCE STATE – MASKED
XRC108M1M	OTHER MEDICAL CONDITIONS – SP – MASKED - 1
XRC108M2M	OTHER MEDICAL CONDITIONS – SP – MASKED - 2
XRC209M1M	DIAGNOSIS OF MEMORY PROBLEM – MASKED - 1
XRC209M2M	DIAGNOSIS OF MEMORY PROBLEM – MASKED - 2
XRN314M1M	WHY ADMITTED – FINAL - 1- MASKED
XRN314M2M	WHY ADMITTED – FINAL - 2- MASKED
XRT158M	WHICH STATE WILL PROBATED – MASKED

7a1c. Rules - Conditions

The conditions that allow a respondent to get a question or sequence of questions have been included in the codebook above the variable name and label. However, the programming of the instrument reused blocks of programming for similar sequences (e.g., the questions about people in the household and the pension

questions). While these questions are similar, sometimes the conditions to get them or the pattern within the sequence itself are not the same. We have eliminated these discrepancies wherever possible but you will find some rules that should not apply to some sequences here and there.

In addition, there can be inconsistencies when a Respondent decides to go back and change an answer that controls flow. We strongly recommend that you also check the Box and Arrow questionnaire whenever you have a question about flow and whether a respondent should be in a particular sequence.

7b. Box and Arrow Questionnaire

The research community has referred to the type of documentation that describes the questions asked in the interview as a "questionnaire". Since the 2020 HRS Exit data were collected using a CAI program, a traditional hard-copy questionnaire was not produced as part of the data collection phase. However, we have provided a version of the traditional box-and-arrow questionnaire to help document the asking sequence of the questions.

7c. Master Codes

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

7d. Online Question Concordance

This documentation resource lets researchers scan the metadata of publicly released HRS datasets in order to find questions asked in a given wave or waves. It contains one record for each of the questions represented by one or more variables in a specified public file. Concordance records are linked over time only in that they have keywords in common or appear in similar sections in different years. It is located here:
https://hrs.isr.umich.edu/documentation/question-concordance

7e. Cross-Wave Tracker File

The HRS tracker file is created to facilitate the use of HRS data within and across waves. The file contains one record for every person who was ever eligible to be interviewed in any wave. Each record contains basic demographic information, interview status, and if, when and how an interview was conducted in each wave. Also included are cross-sectional weights and information on inter-respondent relationships, which are vital to almost all substantive analyses of the HRS data. Please see the Data Descriptions and Release Notes page for the most up to date Tracker file documentation.

7f. Overview of HRS Public Data Files for Cross-sectional and Longitudinal Analysis

HRS distributes a 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

8. Additional Notes

Found here are miscellaneous additional notes regarding HRS 2020 HRS Exit Data Release (Final, Version 1.0). If we become aware of additional issues, they will be posted on our Web site in the Data Alerts section.

8a. Unfolding Bracket Variables and Imputations

Typically, a series of unfolding bracket questions follow a lead-in question asking for an amount. If a valid amount was not given, a series of "unfolding" questions were asked. The manner in which the unfolding questions were programmed using Blaise for the 2002 through 2020 surveys is different from the way it was programmed in SurveyCraft for the 1993 through 2000 surveys. This change was transparent to the respondents, since exactly the same questions were asked with the new software; but it did have an implication for the data that were stored and subsequently released.

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

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

For other sequences, those in which respondents were randomly assigned to one of three "entry" points for the first unfolding question, the analyst will also need to take into account a fourth variable (located in the preload sections) that specifies the entry point for each respondent. The following example shows the preload variable (ZX511) and the unfolding sequence that uses the random entry point from ZX511.

Preload Variable from the data file X20pr_r:

```
================================================================================
XRX511                          PREASSIGNED RANDOM VALUE -11
         Section: PR    Level: Respondent      Type: Numeric    Width: 1
Decimals: 0
         Ref: RTab[1].X511_1Random1_3

         PREASSIGNED RANDOM VALUE


.....................................................................................
           416           1.  RANDOM ASSIGNMENT 1
           437           2.  RANDOM ASSIGNMENT 2
           413           3.  RANDOM ASSIGNMENT 3

================================================================================
```

Unfolding Series from section E that uses XRX511 to assign respondents an entry point:

==========

XRE083 TRANSFER TO CHILD - MIN
Section: E Level: To Child Type: Numeric Width: 5 Decimals: 0
Ref: SecE.KidTransMain.TransToKid[1].E083_

(Thinking about the amount given to your children or grandchildren:)

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

PROCEDURES: 2Up, 1Up1Down, 2Down
BREAKPOINTS: $1,000, $5,000, $20,000
RANDOM ENTRY POINT ASSIGNMENT [1 ($1,000)] or [2 ($5,000)] or [{NOT 1 and NOT 2}($20,000)] AT X511

32	0.	Value of Breakpoint
4	1000.	Value of Breakpoint
16	1001.	Value of Breakpoint
3	5000.	Value of Breakpoint
13	5001.	Value of Breakpoint
15	20001.	Value of Breakpoint
248	Blank.	INAP (Inapplicable); Partial Interview

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XRE084 TRANSFER TO CHILD - MAX
Section: E Level: To Child Type: Numeric Width: 8 Decimals: 0
Ref: SecE.KidTransMain.TransToKid[1].E084_

*

11	999.	Value of Breakpoint
4	1000.	Value of Breakpoint
22	4999.	Value of Breakpoint
3	5000.	Value of Breakpoint
12	19999.	Value of Breakpoint
31	99999996.	Greater than Maximum Breakpoint
248	Blank.	INAP (Inapplicable); Partial Interview

==========

XRE085 TRANSFER TO CHILD - RESULT
Section: E Level: To Child Type: Numeric Width: 2 Decimals: 0
Ref: SecE.KidTransMain.TransToKid[1].E085_

*

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

==========

8b. Errata

Due to a programming error in data models 1 and 2, approximately 50 respondents did not get sections B, C, D, E, and J.

Due to a preload issue, a number of variables will have blank data in PR_R. These respondents had blank data for those variables when data collection began.

8c. Summary of Data Model (DM) Changes During 2020 Production

During the field period, changes to the instrument were made in order to correct errors in programming, improve the quality of the data, modify the question wording/content or to add new questions. A complete listing of Data Model changes (that impact Core data) is provided in the Appendix (link).

9. Obtaining the Data

9a. Registration and Downloading the Data

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

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

9b. Conditions of Use

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

9c. Publications Based on Data

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

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

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

10. If You Need to Know More

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

10a. HRS Internet Site

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

https://hrs.isr.umich.edu/about

10b. Contact Information

If you need to contact us, you may do so by one of the methods listed below.

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

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

FAX: (734) 647-1186

APPENDIX

A. 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:

A1. Health Conditions – Categorical
A2. State and Country Codes

A1. 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; fibromyositis; fibrositis; myofascial pain syndrome
119. Other musculoskeletal or connective tissue problems; lupus; osteoporosis; pinched nerve (location not specified); sciatica/sciatic nerve problem; carpal tunnel syndrome; costochondritis; polymyositis; scleroderma; chromosome leak into the muscles; bone spurs (location not specified); cellulites; tendonitis (location not specified); temporomandibular joint syndrome (TMJ); trigeminial neuralgia; CREST syndrome/limited scleroderma; polymyalgia/polymyalgia rheumatica; avascular necrosis/osteonecrosis, neural muscular myositis, bone disease, myalgia, myositis, osteopenia; adhesions (location not specified); neuritis; skull bone injuries (also use

code 194 if available); vascular necrosis; broken or damaged bones (location not specified) from injuries/accidents (also use code 194 if available); pulled muscle (location not specified -also use code 194 if available); strain (location not specified - also use code 194 if available); tendon damage (location not specified - also use code 194 if available); sprain (location not specified - also use code 194 if available); post-polio syndrome (without mention of paralysis); loss of calcium

Heart, circulatory and blood conditions

121. Heart problems: heart attack (coronary) or failure; arteriosclerosis; heart aneurysms; heart deformities/congenital heart deformities; angina; bad heart; congestive heart disease; cardiomyopathy; atrial fibrillation; myocardial infarction (MI); multiple infarction; myocardinitus, endocarditis; myocardial ischemia; heart murmurs; heart valve blockage; heart valve prolapse; heart valve replacement; arterial blockage; hardening of arteries; heart bypass surgery; mitral valve prolapse; myocardial ischemia; rheumatic heart disease
122. High blood pressure / hypertension (HTN); uncontrollable blood pressure; blood pressure problems, not specified high or low
123. Stroke; cerebral hemorrhage or accident; hemotoma (if related to brain); transient ischemic attack (TIA);
124. Blood disorders: blood disease, anemia; aplastic anemia; hypoplastic anemia; hemophilia; polycythemia vera; bad blood; toxemia; cold agglutin disease; triglycerides or high triglycerides; toxoplasmosis; blood transfusion; sickle cell trait; bone marrow failure; factor VIII/factorVIII deficiency/elevated factor VIII ; thrombocytopenia; hemochromatosis;
129. Other circulatory problems; phlebitis, clots/blood clots, embolisms; varicose veins; hemorrhoids; low blood pressure; giant cell arteritis; hemotoma (if not related to brain or location not specified); gangrene; vascular disease; pulmonary thrombosis; pulmonary embolism; Raynaud's disease; APLS Hughes syndrome; aneurysm (when not in heart or location not specified); elasticity of arteries; calcification of limbs; 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; hayfever; sinusitis; sinus problems; sinus headaches; tonsillitis; celiac disease/sprue (gluten intolerance); hives
132. Asthma
133. Bronchitis; pneumonia; acute upper respiratory problems; Legionnaire's disease; fungus in chest; respiratory pulmonary disease
134. Emphysema; chronic obstructive pulmonary disease (COPD); smoking related lung problems
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' 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; silicates 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)

A2. State and Country Codes

A2a. 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)

A2b. 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

A2c. OTHER COUNTRIES

97. Other Country

98. DK
99. NA

B. 2020 Production Data Model (DM) Changes

DM Version	Section	Field Name	Summary
2	A	A087	Problem: Fill for respondent's name was missing throughout the instrument when case was preloaded as an Exit and the 're-ask date of birth' preload was set to ask. This was happening because this particular combination was skipping date of birth, the respondent grid, and residency questions. Fix: Logic was adjusted so these respondents would get date of birth, respondent grid, and residency questions.
2	G	G176_G032_ADLHlprTemp	Problem: In exit interviews, fill missing from the beginning of the question, and question text incorrect. Fix: Fill and text corrected.
3	all	A007_Stopscreen	Problem: Due to some bad code, Exits were not getting sections B,C, D, E, and J in the first 2 data models in 2020. Fix: On March 24th, interviewers were asked to stop interviewing any Exits cases until we could get a new data model out with the fix. Bad code was removed, so exits will get the relevant sections again.
4	G	G188_G054_IADLHlprTemp	Problem: Exit respondents should not get G188_G054 when they answer "7" didn't do, and then said "no" it wasn't because of a health or memory problem, but were. Fix: Corrected flow so Exit respondents no longer get G188_G054 under those conditions.
5	A	A124	Problem: There was no definition of "nursing home" for exit interviews, which may cause poor code selection. Fix: Added nursing home definition to the screen for exits.

6	COV1	W550-W643	Problem: To capture valuable information about effects of the coronavirus pandemic we will add new COVID-19 section to the main survey. This new section will be asked after section D and will be administered in English and Spanish for Core self report and living proxy interviews (no Web or Exit). Fix: Added new section
7	A	A248_FacilityName	Problem: A decision was made to start asking facility name and address of Exits in addition to asking Core-Self and Living Proxies. Fix: Dropped skip over these questions for Exits.
7	A	puTEST	Problem: questions were being skipped and the respondent grid did not copy over to the final grid in section A for Exit interviews when the proxy doesn't know R's date of death (A123=DK). Fix: started using current year (Z093) for calculation at A206 if A123=DK
8	A	T242_IncValue	Problem: Pronoun fills were not coming up all throughout Section T. In looking at the data, all post-exit cases (z145 = 3) were missing sex at X060. Fix: Added post assignment back to X060 so fills will not come up empty when R does not get the R grid.
8	A	A165_A013_	Problem: Page was blank except for a field labeled 'Continue' when returning to a suspended Remembrance (Exit) interview Fix: Added Exit language for this screen.
8	E	E120	Problem: A problem with who was getting E120 Assist was identified. 1. There are 1,236 cases where E120=1 when the R is not a family respondent. (Section E is for family respondents only (x007=2 or 3). 2. Exits are also incorrectly skipping the assist question (E120). Fix: Added condition to skip non-family respondents, and determined we do not want to ask this question of Exit Respondents either, so also skipping them as well.

8	G	G022	Problem: Exit respondents who should get G020 were skipping to G022. Fix: Fixed flow error.