HEALTH AND RETIREMENT STUDY

Respondent Cross-Year Benefits
Restricted Data

Data Description and Usage

Updated through Consents/Matches as of the HRS 2020 Wave
Released Date: September 2022

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1. Overview and Acknowledgments

The Health and Retirement Study (HRS) is a national longitudinal study of the economic, health, marital, and family status, as well as public and private support systems, of older Americans. The HRS is a rich source of longitudinal, cross-sectional data for researchers and policymakers who study aging. Funding for the Health and Retirement Study is provided by the National Institute on Aging at the National Institutes of Health (U01AG009740), with supplemental support from the Social Security Administration. The study is conducted by the Institute for Social Research (ISR) at the University of Michigan.

The HRS gratefully acknowledges the special assistance of the Social Security Administration's Office of Research and Statistics for their assistance in retrieving the administrative records of HRS respondents who gave consent for those records to be used for research purposes.

2. Obtaining the Data

2a. Access to Restricted Data

Although most HRS data sets are available to the public without restriction, certain HRS data sets contain sensitive respondent information and are only available under terms of a formal agreement negotiated between the researcher and HRS. Prospective users of HRS restricted data have two access options:
- [Virtual Desktop Infrastructure](#) (recommended)
- Traditional Licensing Agreement (deprecated)

For instructions on how to proceed, visit the [HRS Restricted Data](#) page or contact the HRS Restricted Data Applications Processing Team (*hrsrdaapplication@umich.edu*) by email.

2b. Restricted Data Agreement

This restricted data set is intended for exclusive use by you and the persons specified in the *Confidentiality Agreement for Use of Restricted Data from the Health and Retirement Study.* Traditional licensing agreements that include multiple users are also bound by the *Supplemental Agreement with Research Staff for Use of Restricted Data from the Health and Retirement Study*.

2c. Publications Based on Restricted Data

Your restricted data agreement specifies that you will inform HRS of any papers, publications, or presentations based on this restricted data set. Please send a copy of such publications in PDF format via e-mail to *hrsquestions@umich.edu* with "Attn: Papers and Publications" in the subject line. If you wish, you may include a bibliographical reference.

As an alternative, you may transmit publications in paper format by postal mail:
> Health and Retirement Study
> Attn: Papers and Publications
> The Institute for Social Research, Room 3450
> P.O. Box 1248
> Ann Arbor, Michigan 48106-1248

3. Cross-Year Benefit Data Set Content

3a. File Structure

The files contained in this dataset contain information stored on two levels: Respondent and Year. Respondent-level information reflects the status of the person's MBR record at the time of data extraction, keyed on HHID and PN (See `Ben1A_r`, below). Year-level (January through December) data contain month-by-month information derived from the historical record and are keyed on HHID, PN, and YEAR (`Ben1B_r, Ben1C_r, Ben1D_r, Ben1E_r, Ben1F_r, Ben1G_r, Ben1J_r`)
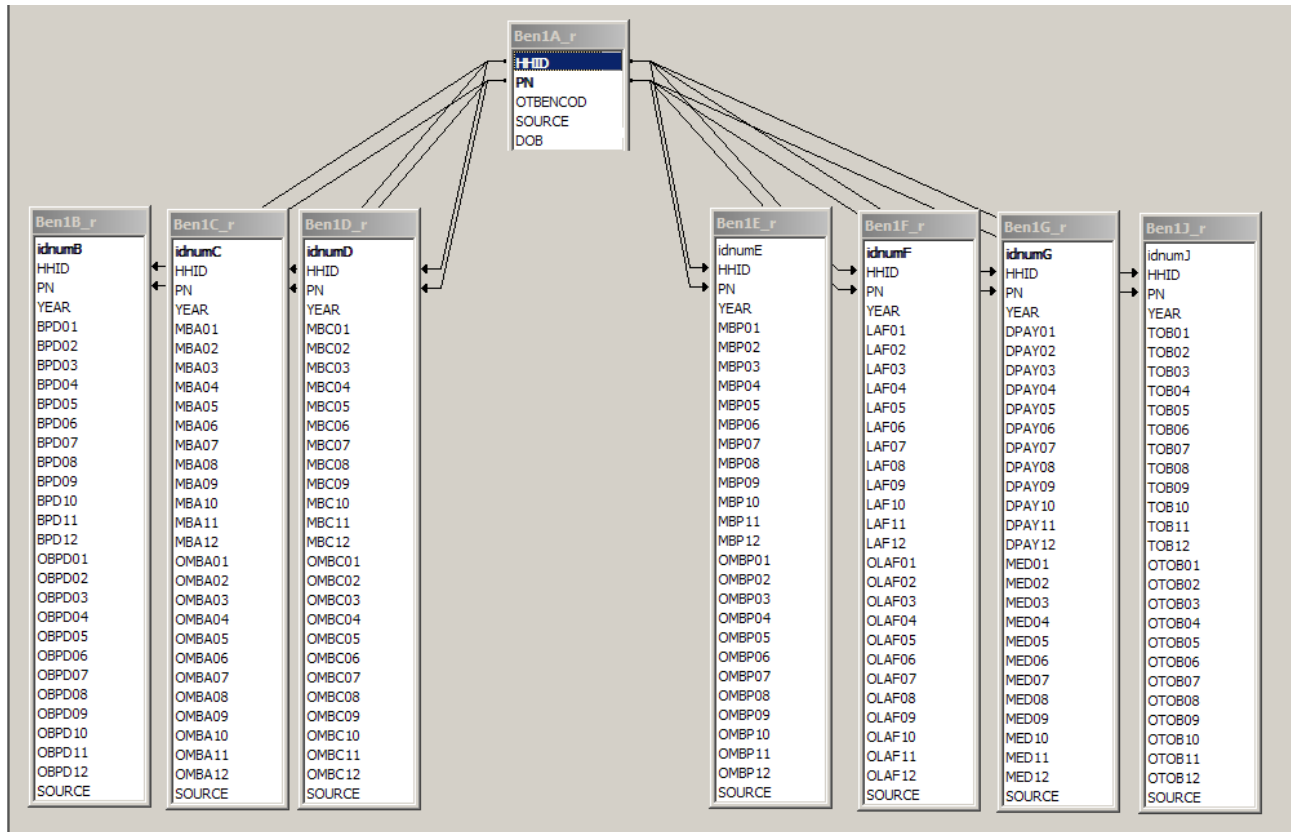
3b. Overview.

The *Respondent Cross-Year Benefits* dataset is derived from Master Beneficiary Record (MBR) data for primary beneficiary and other (secondary) insured. See Appendix A for a detailed explanation of Master Beneficiary Record data usage.

Prior to 2006, respondent permissions were based on separate agreements between HRS and SSA. This meant that the scope of each agreement was unique in terms of time period and information provided. In 2006 the terms of the SSA-HRS agreement were changed:

- HRS was allowed to ask respondents for prospective permission for access to future biennial updates of earnings and benefits data
- The prospective time periods were defined as 1937 through 2030 for earnings and benefits data. Note: The prospective time period was subsequently revised; there is now a 6 year maximum prospective range for earnings records and 12 years for benefits data.

The inputs to this dataset have been received from the Social Security Administration at multiple points in time since the Health and Retirement Survey began, resulting in data element sets that are not always consistent (see Appendix B, below). The following is a summary of the sources from which this data set was built:

- Valid permissions received in 1992, 1994 or 1996 from HRS cohort members (SOURCE=1992) .
- Valid permissions received in 1993 or 1995 from AHEAD cohort members (SOURCE=1995).
- Valid permissions received in 1998 or 2000 from CODA and War Baby cohort members, never interviewed respondents, and new spouses (SOURCE=1998).
- Valid permissions received in 2004 from EBB cohort members, HRS cohort re-consents, War Baby 1998/2000 refusers, never interviewed respondents, and new spouses (SOURCE=2004).
- Valid permissions received in 2006 onward (SOURCE=2006/2008/2010/2012/2014/2016/2018 depending on consent/re-consent status) from:
    - New and never-interviewed respondents
    - Respondents who have not provided a valid benefit and/or earnings permission
    - Respondents who gave permission in an earlier wave, but who have 'timed out' of the maximum prospective range

Since each new record set obtained from SSA reflects the most recent information available, the latest version of the *Respondent Cross-Year Benefits* dataset will always be most accurate. If current information for a given respondent is missing, e.g. the respondent has not (re)consented, the most recent data elements from past datasets are used.

Three sets of files are included in this distribution package. They contain information for respondents on:

- Benefits (Primary and Secondary/Other)
    - General Information
        - Control Data
        - Benefit Data
        - Current Beneficiary Claim Data
        - Latest Beneficiary Denial/Disallowance Data
        - Latest Current Insured Status
        - Dual Data
        - Representative Payee Data
        - Delayed Retirement Credit Data
        - Latest Amount Offset Data
        - Latest Government Pension Offset Data
        - Latest Medicare Date
        - Latest PIA History
        - Latest Disability Data
    - Benefit Paid Designation Indicator
    - Monthly Benefit Amount (Based on PIA)
    - Monthly Benefit Credited (MBA rounded down)
    - Monthly Benefit Paid (MBC Part B Premium)
    - Monthly Ledger Account File (LAF) Status
- Payment History (Primary and Secondary/ Other)
    - Monthly Benefits Paid

- o Monthly HI-SMI Charges
- Type of Benefit (Primary and Secondary/Other)

Primary Cohort	Permission Set												Total
	1992	1993	1998	2004	2006	2008	2010	2012	2014	2016	2018	2020	
HRS	643	0	1	1,465	78	2,529	1,825	342	273	146	266	66	7,634
AHEAD[1]	3	3,945	17	89	14	498	281	0	0	26	23	6	4,902
CODA	0	0	540	156	503	278	119	1	0	30	26	4	1,657
War Baby	0	0	57	38	426	588	263	101	81	43	59	34	1,690
EBB	0	0	0	89	135	768	996	232	257	174	200	46	2,897
MBB	0	0	0	0	0	0	1,214	217	252	235	181	87	2,186
LBB	0	0	0	0	0	0	0	0	0	676	152	100	928
Total	646	3,945	615	1,837	1,156	4,661	4,698	893	863	1,330	907	343	21,894

Table 2: Record Counts

Section A: Primary Beneficiary and Other Insured (Respondent).

This section (ben1A_r) contains data from the Master Beneficiary Record (MBR) primary beneficiary and other (secondary) insured at the respondent level. As noted above, the most recent information for each respondent is reported. This file contains information for 19,949 respondents; it is keyed on Household Identifier and Person Number and matches the 2018 Early Tracker file.

All payment fields have been rounded to the nearest $10, except entries originally between $1 and $10, which have been recoded to $10. Entries originally coded as 0 remained 0. If any entry was less than 0 it was recoded to -1.

With the exception of certain date fields, all alphabetic variables have been converted to numeric values. In such cases, the SSA alphabetic codes have been incorporated into the code description.

Section B: Benefits Paid Designation Indicator.

This file contains monthly benefits paid indicator information for respondents who signed one-time consent forms in 2004, or prospective consent forms in 2006 and later; it is keyed on Household Identifier, Person Number, and Year. See Appendix C for details on the relationship between variables contained in this section and the source of the original data obtained from SSA.

Section C: Monthly Benefit Amount.

This file contains monthly benefit amount information for all respondents; it is keyed on Household Identifier, Person Number, and Year. The Monthly Benefit Amount (MBA) is determined by the PIA. It is

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[1] Note: This data set treats HRS Wave 1 "overlap" cases as members of the AHEAD cohort. There were a number of original HRS Wave 1 households eligible to be either an HRS or AHEAD household. An interview was attempted for each in HRS Wave 1. Afterwards, a random sub-sampling was performed, with 60% of the cases staying in HRS and the remaining going to AHEAD. We refer to the 134 cases given over to AHEAD as the HRS/AHEAD overlap. Detail earnings information was not obtained for AHEAD respondents whose permission was sought in 1993/1995.

the amount payable after reduction of the PIA, if necessary, for age, family maximum, earnings in excess of the earnings test, the government pension offset (affecting widows) and other reasons, but before any deductions of the Medicare Part B (or SMI) premium. Any increase due to the delayed retirement credit is also reflected in the MBA. If the Ledger Account File (LAF) status in the month is C or C2, then a benefit has been paid on that account for that month.

In order to preserve respondent confidentiality, the data fields in this section are rounded as follows: A code of zero (0) represents a true zero dollar amount. Values in the range $0.01 through $10.00 are recoded to $10.00, while values in the range -$0.01 through -$10.00 are recoded to -$10. Amounts with an absolute value of more than $10.00 are rounded to the nearest $10.00 dollars. Absolute values ending in 0.01 to 4.99 are rounded down, and absolute values ending in 5.00 to 9.99 are rounded up.

Section D: Monthly Benefit Credited.

This file contains monthly benefit credited information for all respondents; it is keyed on Household Identifier, Person Number, and Year. The MBC is the amount the beneficiary would pay taxes on. Under law, the MBC is calculated by first subtracting the Part B Medicare (or SMI) Premium (if any) from the MBA, then rounding the result down to the nearest whole dollar, and adding the part B premium to the rounded amount. If the Ledger Account File (LAF) status in the month is C or C2, then a benefit has been paid on that account for that month.

In order to preserve respondent confidentiality, the data fields in this section are rounded as follows: A code of zero (0) represents a true zero dollar amount. Values in the range $0.01 through $10.00 are recoded to $10.00, while values in the range -$0.01 through -$10.00 are recoded to -$10. Amounts with an absolute value of more than $10.00 are rounded to the nearest $10.00 dollars. Absolute values ending in 0.01 to 4.99 are rounded down, and absolute values ending in 5.00 to 9.99 are rounded up.

Section E: Monthly Benefit Paid.

This file contains monthly benefit paid information for all respondents; it is keyed on Household Identifier, Person Number, and Year. The MBP is the MBC minus the Part B (or SMI) premium (if any) and reflects the dollar amount of the check or direct deposit that the respondent actually received. If the Ledger Account File (LAF) status in the month is C or C2, then a benefit has been paid on that account for that month

In order to preserve respondent confidentiality, the data fields in this section are rounded as follows: A code of zero (0) represents a true zero dollar amount. Values in the range $0.01 through $10.00 are recoded to $10.00, while values in the range -$0.01 through -$10.00 are recoded to -$10. Amounts with an absolute value of more than $10.00 are rounded to the nearest $10.00 dollars. Absolute values ending in 0.01 to 4.99 are rounded down, and absolute values ending in 5.00 to 9.99 are rounded up.

Section F: LAF Status.

This file contains monthly ledger account file status information for respondents who signed one-time consent forms in 1993/1995, 1998/2000 and/or 2004, or prospective consent forms in 2006 and later; the file is keyed on Household Identifier, Person Number, and Year.

Section G: Respondent Payment History.

This file contains monthly information on *Monthly Benefits Paid* and *Monthly HI-SMI Charges* for years 1984-2016 and is keyed on Household Identifier, Person Number, and Year. Monthly Benefits Paid is the net amount after deducting Medicare premiums. The HI/SMI Amount includes the payment for Part D Drugs as well as Parts B and C. Thus, the analysts must sum both monthly amounts to calculate the total benefits paid in the month by Social Security to the beneficiary. These are the actual amounts issued by the Department of the Treasury in the month.

In order to preserve respondent confidentiality, the data fields in this section are rounded as follows: A code of zero (0) represents a true zero dollar amount. Values in the range $0.01 through $10.00 are recoded to $10.00, while values in the range -$0.01 through -$10.00 are recoded to -$10. Amounts with an absolute value of more than $10.00 are rounded to the nearest $10.00 dollars. Absolute values ending in 0.01 to 4.99 are rounded down, and absolute values ending in 5.00 to 9.99 are rounded up.

Section J: Respondent Type of Benefits.

This file contains monthly type of benefit information (retired worker, disabled, worker, aged spouse, etc.) for respondents who signed one-time consent forms in 2004, or prospective consent forms in 2006 and later; it is keyed on Household Identifier, Person Number, and Year.

4. If You Need to Know More

This document is intended to serve as a brief overview and to provide guidelines for using this data set. 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

4a. HRS Internet Site

Health and Retirement Study public release data and additional information about the study are available on the Internet. To access public data or to find out more about restricted data products and procedures, visit the HRS Web site.

4b. Contact Information

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

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Internet: Help Desk at the HRS Web site (https://hrs.isr.umich.edu/help)

E-mail: mailto:hrsquestions@umich.edu

Postal service:
    Health and Retirement Study
    The Institute for Social Research
    426 Thompson Street,
    3450 ISR Ann Arbor,
    Michigan 48104
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Appendix A: Master Benefit Record Information[2]

A1. General Information

SSA administrative data are available for those HRS respondents who gave their signed permission to the HRS to obtain their administrative data from federal agencies and for whom SSA was able to validate a Social Security number (SSN) and locate appropriate records. In accordance with the governing Memorandum of Understanding, benefit information for the time period ending in December 2021 was released. HRS records were extracted after that date, with SSA making every effort to reconstruct all benefit information available prior to January 2022.

Each benefit record set in this release has two parts. The first part describes the benefit, if any, that the respondent was receiving as of the most recent permission date (December 2018) and the historical data for that entitlement. The second part contains information for dually entitled beneficiaries; otherwise (e.g., for a retired worker with no other current benefits) these variables are missing. Variable names for fields in the second part start with "O;" otherwise, the metadata information for these fields duplicates the first part. Please see the discussion below on dual entitlements.

Social Security data in these records are extracted from files designed for program administration, and not for research. They are inherently not "user friendly" and are easy to misunderstand. To a great extent that is because the programs are far more complicated than they appear initially. Users are urged to review the documentation carefully and to consult basic program information. Help is available on the Social Security Administration Web site; in particular, see Social Security Program Rules. In addition, see the *Social Security Bulletin's Annual Statistical Supplement* and the *RAND Corporation's SSA Program Data User's Manual* (Panis et al., 2000).[3]

A2. Basic Monthly Benefit Information

From January 1962 through December 2021[4] benefit variables are available on a monthly basis: Monthly Benefit Amount (MBA), Monthly Benefit Credited (MBC), and the Monthly Benefit Paid (MBP). However, these benefit amount variables should only be used in conjunction with the Type of Benefit (TOB) (Table 1, below) variable, constructed by the SSA Research Office for each month. The TOB is a function of several administrative variables including the ledger account file (LAF) variable for the month.

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[2] Source: Office of Research and Statistics, Social Security Administration

[3] Panis, Constantijn; Euller, Roald; Grant, Cynthia; Bradley, Melissa; Peterson, Christin E.; Hirscher, Randall; and Paul Steinberg. 2000. *SSA Program Data User's Manual*. Rand Corporation Contract PM-973-SSA.

[4] SSA does not have information in an electronic form for benefits prior to 1962. Thus, some early benefits are not documented in these records.

Two important general points should be made about the Social Security benefit records. First, the benefit records reflect what should have happened for a particular month. For example, if SSA determines in 1986 that a beneficiary's 1985 earnings exceeded amounts set by the earnings test, then retroactive payment adjustments are made and the 1985 TOBs and MBAs will be changed to reflect what should have happened in 1985. Second, a benefit for a particular month is actually paid in the following month.

Table: Type of Benefit (TOB) Codes	
0	not currently paid for the month
1	retired worker
2	disabled worker
3	aged spouse
4	spouse caring for minor children
5	aged widow(er)
6	widow(er) caring for minor children
7	disabled widow(er)
8	adult disabled child
9	student/child
10	minor child
11, 12	other
13	denied
99	Medicare covered, not an OASDI recipient.

The Monthly Benefit Amount (MBA) is determined by the Primary Insurance Amount (PIA). It is the amount payable after reduction of the PIA, if necessary, for age, family maximum, earnings in excess of the earnings test, the government pension offset (affecting widows) and other reasons, but before any deductions for the SMI (Medicare Part B) premium. Any increase due to the delayed retirement credit is also reflected in the MBA. However, the MBA is not necessarily equal to the amount beneficiaries would pay income taxes on or see in their monthly checks. For the former, users should look to the MBC. Under law, the MBC is calculated by first subtracting the Part B Medicare Premium (if any) from the MBA, then rounding the result down to the nearest whole dollar, and adding the Part B premium to the rounded amount. The MBP is the MBC minus the Part B premium and reflects the dollar amount of the check or direct deposit that the respondent was credited for receiving. In addition, from January 1962 through May 1982, the monthly MBA and MBC variables were the same.[5]

The PIA, MBA, MBC, and MBP fields are updated for every benefit rate increase for beneficiaries in current or suspended pay status (see the TOB codes). Records for terminated beneficiaries show the PIA increase but their benefit variables are not updated. (The benefit fields should always be used with the TOB code for the month.)

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[5]SSA does not have information in an electronic form for benefits prior to 1962. Thus, some early benefits are not documented in these records.

With the passage of the 1983 Amendments to the Social Security Act a portion of Social Security benefits has been subject to federal income taxes. Starting with 1984 it is possible to determine the actual amount of the check or direct deposit that the respondent received. In order to provide beneficiaries with an IRS Forms 1099 for income tax reporting the aggregate amount of Social Security benefit payments, repayments and reductions with respect to an individual in a calendar year was collected in the Payment History Update System (PHUS) which is part of the RSDI Master Beneficiary Record. Each DIRECT-PAY variable is the actual amount that a beneficiary received in a check or direct deposit in a specific month unlike MBA, MBC, and MBP which reflect for which month an amount is payable. As an example, the December 1992 MBP is reflected in the January 1993 DIRECT-PAY variable. In order to determine taxable income the corresponding occurrence of the Medicare Part B premium should be added to the DIRECT-PAY variable (this is the equivalent of the MBC). This has been calculated in the SSINCPAID which is recorded from January, 1984, through December, 2021.

In the SSA files supplied for restricted HRS users, the benefit variables have been rounded to the nearest $10.

A3. Other Important Variables

Two important variables are the month and year of initial entitlement (DOEI) and the month and year of current (or most recent) entitlement (DOEC). The date of initial entitlement is the date of the earliest entitlement on the particular record. It is never overwritten. The data of current entitlement is the date of the most recent entitlement on the particular record.[6]

Identified for each date is the beneficiary identification code (BIC) and the type of benefit (TOB) which show why the benefit was received. For example, DOECBIC=A and DOECTOB=l would indicate a retired-worker beneficiary as of the current entitlement. DOEIBIC=A and DOEITOB=2 would indicate a disabled-worker beneficiary as of the initial entitlement.

Another important variable is the primary insurance amount (PIA), the base for computing all types of benefits payable on the record.[7] If BIC=A, the PIA is the primary insurance amount based on the person's own work in Social Security covered employment. If BIC is not equal to A, then the PIA is based on work in covered employment by someone else (for example, the person's spouse or former spouse).

Also included is the month and year of the primary's death (DODP). (The primary is the person on whose work in Social Security covered employment the benefit is based.) Another field,

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[6]Dimes rounding down was effective with the June 1982 benefit. Prior to that the Part B premium amount on the MBR only reflected the current amount being paid by the beneficiary and did not reflect the historical premium amounts. Effective with June 1982 the historical SMI amount variable (HSA, not included) was created and associated with the history field that the premium change was effective. To be consistent, since all three variables can be processed as an array using a single subscript, we have kept all three variables.

[7] In SSA records, the DOEC is overwritten whenever the TOB changes (e.g., a disabled worker to a retired worker; a young spouse (widow) with children in care to an aged spouse (widow)).

BDOD, shows the date the beneficiary died. The beneficiary date of birth (DOB) according to SSA records and as used for benefit eligibility is also available. (No attempt has been made to make the date consistent with the date of birth as reported in the HRS survey.)

Example.

As of December 1980, Mrs. Jones began receiving retired worker benefits based on her own work in Social Security covered employment (DOEI=121980 and DOEITOB=l) and an aged spouse benefit based on her husband's work in covered employment (ODOEI=121980 and ODOEITOB=3). In December of 1982, her husband died. Her spouse benefit would be terminated and she would begin receiving a widow benefit based on her deceased husband's work in covered employment (ODOEC=121982 and ODOECTOB=5).[8] She would have a two part record describing her benefits. The first part would show her retired worker benefit, and the second part would show her wife benefit from her initial entitlement through the month prior to termination and her widow benefit from the date of her current entitlement through 12/93. Her husband's date of death would be shown by ODODP= 121982 on the second part of her record.

A4. Questions and Answers about the HRS Benefit Files

1. Why does it appear that the benefit record contains duplicate data elements?

As formatted for the HRS, each benefit record has two parts. The first part describes the benefit, if any, that the respondent applied for through the most recent permission date and historical data for that entitlement. The second part describes the benefit, if any, that the respondent applied for through the most recent permission date and historical data for that entitlement as an auxiliary beneficiary based on another person's earnings. The indication that there is a second part to the benefit record is a value of '1' in the variable OTBEN.

2. What is dual entitlement and how do I find them?

Some workers, especially currently/formerly married women, are entitled to both a worker (primary) benefit based on her own covered earnings record and a higher secondary benefit, generally based on her (former) husband's earnings record. For them, the program pays the primary benefit in full, but the secondary benefit is paid only in the amount by which it exceeds the primary benefit. A value of other than spaces in the Type of Dual Entitlement (TOD-1) code in the first part of the record identifies that dual entitlement existed at the time that the data was extracted. Information regarding this dual entitlement period can be obtained from the variables OTBIC-1, OTDOE-1, OTPIA-1, LFMBA-1, OTRIA-1, LEMBA-1, SFMBA-1, SAMBA-1, DESC-1, and OTOC-1. Historical data for the other benefit is in the second part of the record.

3. Are dual entitlement benefits always combined?

No, not always. If the benefits are being paid out of different trust funds, retirement and disability for example, then the benefits will not be combined. Also, if the auxiliary benefit is subject to withholding due to reasons such as the work test or the child in care provisions of the Social Security Act then benefits will not be combined.

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[8] There would be no termination recorded in history if the DOEC for the widow's benefit is the same month as the termination of the aged wife benefit.

If benefits are combined into a single payment then the TOB in the first part of the record identifies the type of benefit while in the second part of the record it should equal 0 for no benefit.

4. Can there be a second part to the benefit record even if there is no current dual entitlement?

Yes, there can be. Some reasons for this can be: prior, but not current, dual entitlement; entitlement to auxiliary benefits under more than one social security number; being denied/disallowed for primary benefits under one's own social security number while being entitled to auxiliary benefits under another social security number; and filing for Medicare Part A or Part B under one's own social security number before being entitled to auxiliary benefits under another social security number.

5. How do I identify which respondents were paid benefits for the most recent month (or any specific month)?

For a benefit to be paid in any given month, the respondent must be in current pay status, as indicated by the LAF code. To identify respondents who were paid benefits for December 2003, the last occurrence of O-MBP > 0 and the last occurrence of LAF should show a value of C or C2 (partial payment due to withholding as a result of the work test).

In every case, the benefit for a given month is the benefit that the respondent would receive in the following month. Thus, the last occurrence of O-MBP shows the amount the respondent would have gotten in January 2009—if the respondent were also in current pay status. Note that the benefit paid for December includes the cost of living adjustment effective for that month and received in January.

6. What is the PIA and how does it change?

The PIA, or primary insurance amount, is the monthly amount payable to a retired worker who begins to receive benefits at the "full retirement age" (between 65 and 67 for the 2004 HRS sample) or to a disabled worker who has never received a retirement benefit reduced for age. The PIA, which is related to the worker's average indexed monthly earnings, is also the amount used as a base for computing all types of benefits payable on the worker's earnings record. It is increased with every benefit rate increase, even for terminated benefit records. It also may increase as a result of a recomputation that credits the worker with additional earnings after initial benefit receipt. Historical PIAs and the associated PIA effective dates (PIED) are given in up to 30 fields on the file.

 7. What do benefit-amount and PIA fields mean for dually-entitled cases?

To determine monthly benefits (either MBA, MBC, or MBP) when OTBEN=l, look at the monthly LAF status in both portions of the record. If the LAF indicates a benefit in any month, then a benefit has been paid on that account for that month. In the cases where LAF and SLAF both show a benefit, add the money fields together from both parts of the record to get the total amount paid for the month. However, in most dually-entitled cases once the primary on the other account has either stopped working or is deceased, the monthly second part LAF code would be A for no benefit and all money would be combined on the primary account that is

shown on the first part of the record.[9] In such cases, ignore the benefit amount given in the second part of the record for the month (except to get the historical MBA or MBC). In virtually all of the cases, the PIA on the first part of the dual record is based upon the respondent's own earnings and the PIA in the second part of the record is based upon their (deceased) spouse's earnings. Sometimes, someone is dually entitled as a wife/husband and a widow(er)--but not as a retired worker. In such cases, the PIA in the first part of the record would be based on the earnings of the respondent's current spouse while the PIA in the 2nd part of the record would be based on the earnings of the respondent's deceased spouse.

8. What about women who receive benefits based on someone else's work record?

Like dual entitlement, entitlement only as an auxiliary beneficiary, generally as a wife or widow, occurs more frequently among women than men. (The law is the same for both sexes.) When OTBEN=O and TOB is not 1 or 2, it's an auxiliary only case. DOECTOB in the first part of the record would equal: a 3 if the respondent received benefits as an aged spouse; a 4 if the respondent received benefits as a young spouse caring for minor/disabled children; a 5 if she (or he) received them as a an aged widow(er), a 6 if she (or he) received them as a an young widow(er) caring for minor/disabled children; and a 7 if she (or he) received them as a disabled widow(er).

9. What other variables might be particularly useful to understand benefits received by women?

Two variables might be particularly useful in understanding women's benefits. The first of them is the TOC, or type of claim code. If TOC equals B or F, then the widow(er)'s benefit at DOEC is capped by the primary benefit amount of their deceased spouse. The widow(er)'s limit provision operates as a ceiling on survivor benefits. It ensures that a survivor benefit does not exceed the benefit the deceased worker would be receiving if alive. Because of this provision, much of the reduction for early retirement of the deceased worker passes through to their surviving spouses.

PIARA, or the PIA reduction amount, may also be useful. It shows if the person had been entitled under another account prior to their retirement account. In the past and still today for widow(er)s born before 1928, those who had previously received benefits as a widow(er), receive a reduced benefit in retirement. For example, a widow might become a beneficiary at age 60 and receive widow benefits until she converts to her own retired worker benefit at age full retirement age. It used to be the case that a benefit reduction amount would continue in retirement. But now, except for widow(er)s born before 1928, the actuarial reduction isn't carried over at full retirement age.

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[9]In such cases, the benefit fields in the second part of the record show the amount in the auxiliary part of the benefit. The amount due the dually-entitled respondent as a worker can be calculated by subtracting the benefit in the second part from that in the first. They may be useful for some analyses. For example, to analyze the effect of a proposal to decrease the spouse benefit, the part of the total benefit received as a spouse needs to be distinguished from the part received as a retired worker.

10. Which respondents took early Social Security retirement benefits and which respondents delayed their retirement?

For the HRS cohorts, the [full retirement age] in the Social Security program is dependent on the respondent's date of birth. Workers retiring earlier (as early as age 62) have their benefits reduced. [Surviving spouses] can retire as early as age 60, with their benefits reduced, and their full retirement age is also dependent on their date of birth but uses a different reduction factor than retiring workers (www.ssa.gov/survivorchartred.htm). Those who retired after reaching the full retirement age have their benefits increased because of the delayed retirement credit (DRC).

Calculating age at initial entitlement (using the DOB and DOEI) can generally identify early retirement cases.[10] For most cases, if the primary's MBA > PIA, then it's a DRC case. For those not dually entitled, the MBA is less likely to exceed the PIA for reasons other than delayed retirement. The DRCY, the Delayed Retirement Computation Year, and the CRIMC, or Current Cumulative Retirement Increment Months, might also help in establishing DRC cases. (However, we are uncertain of the usefulness of these variables for research.)

11. How can I find respondents who worked after first taking Social Security retirement benefits?

This is not possible with the TOB patterns. It requires access the ledger account file (LAF) code. Respondents who had benefits fully withheld due to the primary's earnings are identified by LAFs and O-LAFs of S1 and S2 for the worker and LAFs and O-LAFs of S3 and S5 for auxiliaries. In addition, for the HRS LAF codes were modified with a value equaling C2 to indicate that a partial benefit was paid for that month because there were earnings from work in excess of the earnings test that month. For historical amounts permitted without reductions in benefits, see [Table 2.A29] in the *Social Security Bulletin Annual Statistical Supplement*.

Note that there will be no information for respondents who work but have earnings below the retirement earnings test. In 1992, for example, respondents age 65 or older could have earnings below $10,200 and not be affected by the test

12. What should we know about suspensions and terminations?

The LAF codes would be S or T for a month without benefits. In periods of suspension (LAF = S), beneficiaries are still entitled to benefits but benefits are withheld for some reason (e.g., during an address change). In a period of suspension, the PIA is increased with every benefit rate increase and the MBA is recomputed, giving a new history field effective with the benefit-

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[10]The result can be imperfect. For example, a worker could file for benefits at age 62, then go back to work and exceed the earnings test until age 65. In that case the DOEI (and DOB) would indicate an early retirement at age 62, but that could be misleading, depending on the analysis.

For many cases, if the primary's MBA < PIA, then it's also probably an early retirement case. However, that strategy isn't perfect because many things can affect the MBA. For example, the MBA could be less than the PIA because of partial withholdings for the earnings test, receipt of worker's comp, the government offset (affecting widows), or repayments by beneficiaries for past overpayments.

rate-increase month. In contrast, records for terminated (LAF = T) beneficiaries show a PIA increase with every benefit-rate increase but do not have their MBA updated. Program terminations may be for periods of temporary recovery from periods of disability or time lapses due to conversions of young spouses (widows) with child in care to aged spouses (widows).

For respondents not in current pay status, DOST and DOCA may be useful. (However, both fields are deleted when the person resumes current pay status.) The DOST is the date a suspension/termination action should have taken place, while the DOCA is the date when the suspension/termination action actually was applied to stop the payment. If the DOCA shows a later date than the DOST, an overpayment occurred. For example: an aged spouse beneficiary who was divorced in July 1992 and who was not entitled to divorced spouse benefits might not notify SSA until September 1992 of the divorce. DOST would be 071992, and DOCA would be 091992. There would have been a 2-month overpayment that would require repayment. (There is nothing in our data extract that shows if the overpayment was recovered).

As noted, for past periods of suspensions/terminations, look to the O-LAF codes not the DOST/DOCA.

13. What information is available about Social Security disability benefits?

There are three types of Social Security disability benefits among the respondents in the HRS.
1. Benefits for the disabled worker which often referred to as "disability insurance benefits" or "disabled worker's benefits." These can be distinguished by a DOEI-TOB/DOEC-TOB code of. 2. Disability (DI) benefits awarded to the HRS population are automatically converted to retired worker beneficiary status at the beneficiary's normal retirement age. A DOEI-TOB code of 2 paired with a DOEC-TOB code of 1 identifies respondents who were previously entitled to DI benefits.
2. Benefits for a disabled widow(er) or disabled surviving divorced spouse. These benefits apply to disabled widow(er)s (or disabled surviving divorced spouses) age 50-59 who meet the other requirements for entitlement to widow(er)'s insurance benefits. These can be distinguished by a DOEI-TOB/DOEC-TOB code of 7.
3. Benefits for a disabled child of a worker entitled to disabled worker's or retirement benefits or of an insured worker who died. These benefits are payable as early as age 18 and there is no upper age limit. They are referred to as childhood disability benefits because the child must have become disabled before reaching age 22. These can be distinguished by a DOEI-TOB/DOEC-TOB code of. 8.

Other important DI variables on the HRS file include:

DLM   Date Disability Requirement Last Met
DDO   Date of Disability Onset
DOED   Date of (Deemed) Entitlement to DIB
DDBC   Date Disability Cessation
LOD   Level of Denial Code
RDD   Reason for Disallowance or Denial
BDC   Basic for Denial Code. A derivative of the denial codes in the RDD; usually contains the last two positions of the RDD.
DIG   Diagnosis Code
SDIG   Secondary Diagnosis Code

Appendix B: Data Availability by Source

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
HHID	00 Control Data	Household Identifier and Person Number	X	X	X	X	X	X	X
PN		Person Number	X	X	X	X	X	X	X
OTBENCOD		Other Benefit Indicator	X	X	X	X	X	X	X
SOURCE		Year permission given flag	X	X	X	X	X	X	X
BDOB	01 Benefit Data (Primary)	Date of Beneficiary Birth				X	X	X	X
BDOD		Date of Beneficiary Death		X	X	X	X	X	X
CIS1		Computation and Insured Status Code One				X	X		
DDCO		Direct Deposit Code		X	X	X	X	X	X
DOB		Primary Date of Birth		X	X	X	X	X	X
DOCA		Effective date of Date of Suspension of Termination		X	X	X	X	X	X
DODP		Primary Date of Death		X	X	X	X	X	X
DOEC		Date of Current (Most Recent) Entitlement to Benefits.		X	X	X	X	X	X
DOECBIC		Beneficiary Identification Code at DOEC		X	X	X	X	X	X
DOECTOB		Type of Benefit at DOEC		X	X	X	X	X	X
DOEI		Earliest Date of Initial Entitlement to Benefits		X	X	X	X	X	X
DOEIBIC		Beneficiary Identification code at DOEI		X	X	X	X	X	X
DOEITOB		Type of Benefit at DOEI		X	X	X	X	X	X
DOST		Date of Suspension or Termination Death		X	X	X	X	X	X
ERC		Earnings Recomputation Cycle				X	X	X	X
RACE		Race of Beneficiary		X	X	X	X	X	X
RCC		Recomputation Code				X	X	X	X
SEX		Sex of Beneficiary		X	X	X	X	X	X
TOC		Type of Claim	X			X	X	X	X
TOCNUM		Claim type count					X		
TOC		Type of Claim (1-20)				X	X	X	X
BCLMAF60	02 Current Beneficiary Claim Data (Primary)	Adjusted Retirement Factor Months age 50 - 60				X	X	X	X
BCLMAF62		Adjusted Retirement Factor Months age 60 - 62				X	X	X	X
BCLMAFRA		Adjusted Retirement Factor Months age 62 - FRA				X	X	X	X
BCLMAPPR		Date Beneficiary Filed for Benefits				X	X	X	X
BCLMBIC		Beneficiary Identification Code				X	X	X	X
BCLMCEC		Historical Current Entitlement Code				X	X	X	X
BCLMCERT		Historical Current Entitlement Date				X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
BCLMDOE		Date of Entitlement for Benefits				X	X	X	X
BCLMDOET		Historical Date of Entitlement Termination				X	X	X	X
BCLMDOF		Date of Filing for Benefits				X	X	X	X
BCLMLMET		Last Monthly Earnings Test Year				X	X	X	X
BCLMMOE		Month Of Entitlement Code				X	X	X	X
BCLMORF		Original Reduction Factor Months				X	X	X	X
BCLMOTSI		Entitlement Outside the Max Indicator)				X	X	X	X
DENYAPPR	03 Latest Beneficiary Denial/Disallowance Data (Primary)	Application Receipt Date				X	X	X	X
DENYBIC		Beneficiary Identification Code				X	X	X	X
DENYCEC		Historical Current Entitlement Code				X	X	X	X
DENYDDO		Disability Onset Date				X	X	X	X
DENYDOF		Application Filing Date				X	X	X	X
DENYLOD		Level Of Denial				X	X	X	X
DENYRDD		Reason For Disability Denial				X	X	X	X
INSDCISH	04 Latest Current Insured Status (Primary)	Currently Insured Has QCS				X	X	X	X
INSDCISR		Currently Insured Test Required QCS				X	X	X	X
INSDCLMT		Claim Type				X	X	X	X
INSDDCF		Date Claim Filed				X	X	X	X
INSDDIBH		Dib Test Has Quarters of Coverage Required				X	X	X	X
INSDDIBR		Dib Test Quarters of Coverage Required				X	X	X	X
INSDFISH		Fully Insured Has QCS				X	X	X	X
INSDFISR		QCS Required For Fully Insured Test				X	X	X	X
INSDFSTM		First Month Insured				X	X	X	X
INSDLSTM		Last Month Insured				X	X	X	X
INSDSTBL		Statutory Blindness Established Indicator				X	X	X	X
INSDWPSD		Waiting Period Start Month				X	X	X	X
DESC1	05 Dual Data (Primary)	Dual Entitlement Status code				X	X	X	X
LEMBA1		Excess Amount Payable on Larger MBA				X	X	X	X
LFMBA1		Larger MBA reduced for FMAX				X	X	X	X
OTBIC1		Other BIC				X	X	X	X
OTDOE1		Other Date of Entitlement				X	X	X	X
OTOC1		Other Office Code				X	X	X	X
OTPIA1		Other Primary Insurance Amount				X	X	X	X
OTRIA1		Other Retirement Insurance Amount				X	X	X	X
SAMBA1		Smaller MBA reduced for Maximum and Age				X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
SFMBA1		Smaller MBA reduced for FMAX				X	X	X	X
TOD1		Type of Dual Entitlement				X	X	X	X
CC	06 Representative Payee Data (Primary)	Custody Code				X	X	X	X
DOS		Date of Selection				X	X	X	X
GS		Guardian Status				X	X	X	X
TOP		Type of Payee				X	X	X	X
CRIMC	07 Delayed Retirement Credit Data (Primary)	Current Cumulative Retirement Increment Months		X	X	X	X	X	X
DRCY		Delayed Retirement Comp Year		X	X	X	X	X	X
PIARA		PIA Reduction Amount		X	X	X	X	X	X
AMOFPDBO	08 Latest Amount Offset Data (Primary)	Amount Of PDB Offset				X	X	X	X
AMOFSTAR		Amount Offset Begin Date				X	X	X	X
AMOFSTOP		Amount Offset End Date				X	X	X	X
AMOFWCON		Amount Of WC Offset				X	X	X	X
GPMSTART	09 Latest Government Pension Offset Data (Primary)	Government Pension Monthly Start Date				X	X	X	X
GPMSTOPR		Government Pension Monthly End Date				X	X	X	X
GPMTOTAL		Total Monthly Government Pension Amount				X	X	X	X
GPMWTHLD		Government Pension Monthly Amount Withheld				X	X	X	X
HIBASIS	10 Latest Medicare Date (Primary)	Hospital Insurance Basis Type				X	X	X	X
HIPERIOD		Hospital Insurance Enrollment Period Type				X	X	X	X
HISTART		Hospital Insurance Enrollment Start Month				X	X	X	X
HITERM		Hospital Insurance Termination Month				X	X	X	X
SMIBASIS		Supplemental Medical Insurance (SMI) Basis Type				X	X	X	X
SMINONCO		SMI Non Coverage Reason Type				X	X	X	X
SMIPERIO		SMI Enrollment Period Type				X	X	X	X
SMISTART		SMI Enrollment Effective Month				X	X	X	X
SMITERM		SMI Termination Month				X	X	X	X
SMTPCATE		SMI Third Party Category Type				X	X	X	X
SMTPCODE		SMI Third Party Identification Code				X	X	X	X
SMTPSTAR		SMI Third Party Start Month				X	X	X	X
SMTPSTOP		SMI Third Party Stop Month				X	X	X	X
FMAX	11 Latest PIA History (Primary)	Family Maximum		X	X	X	X	X	X
PIA		Primary Insurance Amount	X	X	X	X	X	X	X
PIED		Primary Insurance Effective Date		X	X	X	X	X	X
PIFC		Primary Insurance Factor Code				X	X	X	X
RFCP		Reason for Change in Primary Insurance Amount		X	X	X	X	X	X
TOM		Type of Maximum		X	X	X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
ADC	12 Latest Disability Data (Primary)	Applicants Disability Cessation				X	X	X	X
APS		Appeals				X	X	X	X
BDC		Basis for denial Code		X		X	X	X	X
CDR		Cessation of Disability Reason				X	X	X	X
DAA		Drug Addiction / Alcoholism Code				X	X	X	X
DAC		Disability Award Code				X	X	X	X
DDBC		Date of Disability Benefit Cessation		X	X	X	X	X	X
DDO		Date of Disability Offset		X	X	X	X	X	X
DIG		Diagnosis Code				X	X	X	X
DOED		Medicare Date of Entitlement to DIB 01		X	X	X	X	X	X
DSD		Disability Adjudication Date				X	X	X	X
HDD		Hearing Decision Date				X	X	X	X
LOD		Level of Denial Code				X	X	X	X
PRY		Pending Appeals Review				X	X	X	X
SDIG		Secondary Diagnosis Code				X	X	X	X
SDS		Substantial Gainful Activity Disability Cessation				X	X		
SGA		Current Substantial Gainful Activity					X		
T2DOED		Title II Date of Entitlement to DIB					X	X	X
OBDOB	21 Benefit Data (Other/Secondary)	Other-Date of Beneficiary Birth					X	X	X
OBDOD		Other-Date of Beneficiary Death			X	X	X	X	X
OCIS1		Other Computation and Insured Status Code One							
ODDCO		Other-Direct Deposit Code		X	X	X	X	X	X
ODOB		Other Date of Birth		X	X	X	X	X	X
ODOCA		Other-Effective date of Date of Suspension of Termination		X	X	X	X	X	X
ODODP		Other Date of Death		X	X	X	X	X	X
ODOEC		Other-Date of Current/Most Recent Entitlement to Benefits.		X	X	X	X	X	X
ODOECBIC		Other-Beneficiary Identification Code at DOEC		X	X	X	X	X	X
ODOECTOB		Other-Type of Benefit at DOEC		X	X	X	X	X	X
ODOEI		Other-Earliest Date of Initial Entitlement to Benefits		X	X	X	X	X	X
ODOEIBIC		Other-Beneficiary Identification code at DOEI		X	X	X	X	X	X
ODOEITOB		Other-Type of Benefit at DOEI		X	X	X	X	X	X
ODOST		Other-Date of Suspension or Termination Death		X	X	X	X	X	X
OERC		Other-Earnings Recomputation Cycle					X	X	X
ORACE		Race of Other Beneficiary		X	X	X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
ORCC		Other-Recomputation Code					X	X	X
OSEX		Sex of Other Beneficiary		X	X	X	X	X	X
ONHTOC		Other-Type of Claim							
OTOCNUM		Other- Number of Types of Claim							
OTOC		Other: Type of Claim 01-20				X	X	X	X
OBCLMAF60	22 Current Beneficiary Claim Data (Other/Secondary)	Other-Adjusted Retirement Factor Months age 50 - 60				X	X	X	X
OBCLMAF62		Other-Adjusted Retirement Factor Months age 60 - 62				X	X	X	X
OBCLMAFRA		Other-Adjusted Retirement Factor Months age 62 - FRA				X	X	X	X
OBCLMAPPR		Other-Date Beneficiary Filed for Benefits				X	X	X	X
OBCLMBIC		Other-Beneficiary Identification Code				X	X	X	X
OBCLMCEC		Other-Historical Current Entitlement Code				X	X	X	X
OBCLMCERT		Other-Historical Current Entitlement Date				X	X	X	X
OBCLMDOE		Other-Historical Date of Entitlement				X	X	X	X
OBCLMDOET		Other-Historical Date of Entitlement Termination				X	X	X	X
OBCLMDOF		Other-Date of Filing for Benefits				X	X	X	X
OBCLMLMET		Other-Last Monthly Earnings Test Year				X	X	X	X
OBCLMMOE		Other-Month Of Entitlement Code				X	X	X	X
OBCLMORF		Other-Original Reduction Factor Months				X	X	X	X
OBCLMOTSI		Other-Entitlement Outside the Max Indicator)				X	X	X	X
ODENYAPPR	23 Latest Beneficiary Denial/Disallowance Data (Other/Secondary)	Other-Application Receipt Date				X	X	X	X
ODENYBIC		Other-Beneficiary Identification Code				X	X	X	X
ODENYCEC		Other-Historical Current Entitlement Code				X	X	X	X
ODENYDDO		Other-Disability Onset Date				X	X	X	X
ODENYDOF		Other-Application Filing Date				X	X	X	X
ODENYLOD		Other-Level Of Denial				X	X	X	X
ODENYRDD		Other Reason For Disability Denial				X	X	X	X
OINSDSTBL	24 Latest Current Insured Status (Other/Secondary)	Other-Statutory Blindness Established Indicator				X	X	X	X
OINSDCLMT		Other-Claim Type				X	X	X	X
OINSDCISR		Other-Currently Insured Test Required QCS				X	X	X	X
OINSDDCF		Other-Date Claim Filed				X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
OINSDFISH		Other-Fully Insured Has QCS				X	X	X	X
OINSDFISR		Other-QCS Required For Fully Insured Test				X	X	X	X
OINSDFSTM		Other-First Month/Year Insured				X	X	X	X
OINSDDIBH		Other-Dib Test Has Quarters of Coverage Required				X	X	X	X
OINSDLSTM		Other-Last Month/Year Insured				X	X	X	X
OINSDDIBR		Other-Dib Test Quarters of Coverage Required				X	X	X	X
OINSDCISH		Other-Currently Insured Has QCS				X	X	X	X
OINSDWPSD		Other-Waiting Period Start Month/Year				X	X	X	X
ODESC	25 Dual Data (Other/Secondary)	Other Dual Entitlement Status code				X	X	X	X
OLEMBA		Other-Excess Amount Payable on Larger MBA				X	X	X	X
OLFMBA		Other-Larger MBA reduced for FMAX				X	X	X	X
OOTAN		Other Account Number				X	X	X	X
OOTBIC		Other Bic				X	X	X	X
OOTDOE		Other Date of Entitlement				X	X	X	X
OOTOC		Other-Other Office Code				X	X	X	X
OOTPIA		Other Primary Insurance Amount				X	X	X	X
OOTRIA		Other-Other Retirement Insurance Amount				X	X	X	X
OSAMBA		Other-Smaller MBA reduced for Maximum and Age				X	X	X	X
OSFMBA		Other-Smaller MBA reduced for FMAX				X	X	X	X
OTOD		Other-Type of Dual Entitlement				X	X	X	X
OCC	26 Representative Payee Data (Other/Secondary)	Other Custody Code				X	X	X	X
ODOS		Other-Date of Selection				X	X	X	X
OGS		Other Guardian Status				X	X	X	X
OTOP		Other Type of Payee				X	X	X	X
OCRIMC	27 Delayed Retirement Credit Data (Other/Secondary)	Other-Current Cumulative Retirement Increment Months	X	X	X	X	X	X	X
ODRCY		Other-Delayed Retirement Comp Year	X	X	X	X	X	X	X
OPIARA		Other-PIA Reduction Amount	X	X	X	X	X	X	X
OAMOFPDBO	28 Latest Amount Offset Data (Other/Secondary)	Other-AMOUNT OF PDB OFFSET				X	X	X	X
OAMOFSTAR		Other-AMOUNT OFFSET BEGIN DATE				X	X	X	X
OAMOFSTOP		Other-AMOUNT OFFSET END DATE				X	X	X	X
OAMOFWCON		Other-AMOUNT OF WC OFFSET				X	X	X	X
OGPMSTART		Other-Government Pension Monthly Start Date				X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
OGPMSTOPR	29 Latest Government Pension Offset Data (Other/Secondary)	Other-Government Pension Monthly End Date				X	X	X	X
OGPMTOTAL		Other-Total Monthly Government Pension Amount				X	X	X	X
OGPMWTHLD		Other-Government Pension Monthly Amount Withheld				X	X	X	X
OHIBASIS	30 Latest Medicare Date (Other/Secondary)	Other-Hospital Insurance Basis Type				X	X	X	X
OHIPERIOD		Other-Hospital Insurance Enrollment Period Type					X		
OHISTART		Other-Hospital Insurance Enrollment Start Month/Year				X	X	X	X
OHITERM		Other-Hospital Insurance Termination Month/Year				X	X	X	X
OSMIBASIS		Other-SMI Basis Type				X	X	X	X
OSMINONCO		Other-SMI Non Coverage Reason Type				X	X	X	X
OSMIPERIO		Other-SMI Enrollment Period Type				X	X	X	X
OSMISTART		Other-SMI Enrollment Effective Month				X	X	X	X
OSMITERM		Other-SMI Termination Month				X	X	X	X
OSMTPCATE		Other-SMI Third Party Category Type				X	X	X	X
OSMTPCODE		Other Smi Third Party Identification Code				X	X	X	X
OSMTPSTAR		Other-SMI Third Party Start Month/Year				X	X	X	X
OSMTPSTOP		Other-SMI Third Party Stop Month/Year				X	X	X	X
OFMAX	31 Latest PIA History (Other/Secondary)	Other-Family Maximum		X		X	X	X	X
OPIA		Other-Primary Insurance Amount				X	X	X	X
OPIED		Other-Primary Insurance Effective Date		X		X	X	X	X
OPIFC		Other-Primary Insurance Factor Code				X	X	X	X
ORFCP		Other-Reason for Change in Primary Insurance Amount				X	X	X	X
OTOM		Other-Type of Maximum		X		X	X	X	X
OADC	32 Latest Disability Data (Other/Secondary)	Other-Applicants Disability Cessation				X	X	X	X
OAPS		Other-Appeals				X	X	X	X
OBDC		Other Basis for denial Code				X	X	X	X
OCDR		Other Cessation of Disability Reason					X	X	X
ODAA		Other Drug Addiction / Alcoholism Code				X	X	X	X
ODAC		Other Disability Award Code				X	X	X	X

Variable	Group_Name	Content	1992	1993	1998	2004	2012	2016	2018/2020
ODDBC		Other-Date of Disability Benefit Cessation				X	X	X	X
ODDO		Other-Date of Disability Offset					X	X	X
ODIG		Other-Diagnosis Code				X	X	X	X
ODOED		Other- Medicare Date of Entitlement to DIB				X	X	X	X
ODSD0		Other-Disability Adjudication Date				X	X	X	X
OHDD		Other-Hearing Decision Date				X	X	X	X
OLOD		Other-Level of Denial Code				X	X	X	X
OPRY		Other Pending Appeals Review					X	X	X
OSDIG		Other-Secondary Diagnosis Code					X	X	X
OSDS		Other-Substantial Gainful Activity Disability Cessation				X	X		
OSGA		Other Current Substantial Gainful Activity					X		
OT2DOED		Other-Title II Date of Entitlement to DIB					X		
BPD	99 Payment History	Benefits Paid Designation Indicator				X	X	X	X
LAF		Monthly LAF Status		X	X	X	X	X	X
MBA		Monthly Benefit Amount	X	X	X	X	X	X	X
MBC		Monthly Benefit Credited		X	X	X	X	X	X
MBP		Monthly Benefits Paid	X	X	X	X	X	X	X
OBPD		Other Benefits Paid Designation Indicator				X	X	X	X
OLAF		Other Monthly LAF Status		X	X	X	X	X	X
OMBA		Other Monthly Benefit Amount		X	X	X	X	X	X
OMBC		Other Monthly Benefit Credited		X	X	X	X	X	X
OMBP		Other Monthly Benefits Paid		X	X	X	X	X	X
DPAY		PHUS Monthly Benefit			X	X	X	X	X
HISMI		PHUS HI-SMI Charges			X	X	X	X	X

Appendix C: Data Availability by Source for Time-Series Variables

SOURCE	For each **SOURCE** category, these sections contain data…							… for these time series variables			
	Sec B: Benefits Paid	Sec C: Monthly Benefit Amount	Sec D: Monthly Benefit Credited	Sec E: Monthly Benefit Paid	Sec F: Monthly LAF Status	Sec G: Payment History/HI-SMI Charges	Sec J: Type of Benefit	Sec B: BPD/OBPD	Sec C: MBC/OMBC	Sec D MBA/OMBA	Sec E: MBP/OMBP
1992		Yes		Yes					1962-1991		1962-1991
1993		Yes	Yes	Yes	Yes				1962-1992	1962-1992	1962-1992
1998		Yes	Yes	Yes	Yes	Yes			1962-1999	1962-1999	1962-1999
2004	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2003	1962-2003	1962-2003	1962-2003
2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2008	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2010	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2012	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2014	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2016	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020
2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	1962-2020	1962-2020	1962-2020	1962-2020

Note: Not all variables are available for all respondents in all years. Data availability depends on when the most recent inf
from SSA for a given respondent as well as current post-2004 re-consent rules.

Appendix D: DI 28085.125 Coding Lists

D1. Adult Listing Impairment Codes

Listing Code	Diagnostic Category	Impairment
Musculoskeletal (01)		
1.02	Other and Unspecified Arthropathies	7160
1.03	Osteoarthrosis and Allied Disorders	7150
1.04	Disorders of Back (discogenic and degenerative)	7240
1.04B	Arachnoiditis	3210
1.05	Late Effects of Musculoskeletal and Connective Tissue Injuries (amputation)	9050
1.06	Fractures of Lower Limb	8270
1.07	Fractures of Upper Limb	8180
1.08	Open Wound of Upper Limb (Soft Tissue Injury)	8840
1.08	Open Wound of Lower Limb (Soft Tissue Injury)	8940
1.08	Burns (NOS)	9490
Special Senses and Speech (02)		
2.02	Retinal Detachments and Defects	3610
2.02	Glaucoma	3650
2.02	Cataract	3660
2.02	Low Vision	3690
2.02	Statutory Blindness	3694
2.03	Visual Disturbances	3680
2.03A	Statutory Blindness	3694
2.04	Visual Disturbances	3680
2.07	Vertiginous Syndromes and Other Disorders of Vestibular System	3860
2.09	Loss of Voice	7840
2.10	Hearing Loss Not Treated with Cochlear Implantation	3890
2.11	Hearing Loss Treated with Cochlear Implantation	3890
Respiratory (03)		
3.02	Chronic Pulmonary Insufficiency	4960
3.03	Asthma	4930
3.04	Cystic Fibrosis	2770
3.06	Pneumoconiosis	5050
3.07	Bronchiectasis	4940
3.08	Mycobacterial, Mycotic, and Other Chronic Persistent Infections of the Lung	1170
3.09	Cor Pulmonale secondary to Chronic Pulmonary Vascular Hypertension	4160
3.10	Sleep-related Breathing Disorders	7800
3.11	Lung Transplant	3250
Cardiovascular (04)		
4.02	Chronic Heart Failure	4280
4.04	Ischemic Heart Disease	4140
4.05	Recurrent Arrhythmias	4270
4.06	Symptomatic Congenital Heart Disease	7460
4.09	Heart Transplant	3750
4.10	Aneurysm of Aorta or Major Branches	4410
4.11	Chronic Venous Insufficiency	4590
4.12	Peripheral Arterial Disease	4430
Digestive (05)		

5.02	Gastrointestinal hemorrhaging from any cause	5780
5.05	Chronic Liver Disease	5710
5.06	Inflammatory Bowel Disease (IBD)	5550
5.07	Short Bowel Syndrome (SBS)	5793
5.08	Weight loss due to any digestive disorder	2630
5.09	Liver Transplantation	4750
Genitourinary (06)		
6.03	Chronic Kidney Disease with Dialysis	5850
6.04	Kidney Transplant	9960
6.05	Chronic Kidney Disease	5880
6.06	Nephrotic Syndrome	5810
6.09	Complications of Chronic Kidney Disease	5830
Hematological Disorders (07)		
7.02	Other Anemias	2850
7.05	Hereditary Hemolytic Anemias (Including all Sickle Cell)	2820
7.06	Purpura and Other Hemorrhagic Conditions	2870
7.07	Disease of Capillaries (Hereditary Telangiectasia)	4480
7.08	Coagulation Defects (Including Hemophilia)	2860
7.09	Polycythemia Vera	2380
7.10	Other Diseases of Blood and Blood-Forming Organs	2890
7.15	Diseases of White Blood Cells	2880
7.17	Aplastic Anemia	2840
Skin Disorders (08)		
8.02	Ichthyosis	6950
8.03	Bullous Disease	6940
8.04	Chronic Infection of the Skin or Mucous Membranes	1170
8.05	Dermatitis	6960
8.06	Hidradenitis Suppurativa	7050
8.07	Genetic Photosensitivity Disorders	7590
8.08	Burns	9480
Impairments That Affect Multiple Body Systems (10)		
10.06	Non-mosaic Down Syndrome	7580
Neurological (11)		
11.02	Epilepsy (Major Motor Seizures)	3450
11.03	Epilepsy (Minor Motor Seizures)	3450
11.04	Late Effects of Cerebrovascular Disease	4380
11.05	Benign Neoplasm of Brain and Other Parts of Nervous System	2250
11.06	Parkinson's Disease	3320
11.07	Cerebral Palsy	3430
11.08	Other Diseases of Spinal Cord	3360
11.08	Fracture of Vertebral Column with Spinal Cord Lesion	8060
11.09	Multiple Sclerosis	3400
11.10	Anterior Horn Cell Disease	3358
11.10	Amyotrophic Lateral Sclerosis	3350
11.11	Late Effects of Acute Poliomyelitis	1380
11.12	Myoneural Disorders	3580
11.13	Muscular Dystrophies and Other Myopathies	3590
11.14	Peripheral Neuropathy	3570
11.16	Deficiency Anemias	2810
11.17	Other Cerebral Degenerations	3310

11.18	Late Effects of Injuries to the Nervous System	9070
11.19	Other Diseases of Spinal Cord	3360
Mental Disorders (12)		
12.02	Organic Mental Disorders	2940
12.03	Schizophrenic, Paranoid and Other Psychotic Disorders	2950
12.04	Affective Disorders	2960
12.05	Intellectual Disability	3180
12.06	Anxiety Related Disorders	3000
12.07	Somatoform Disorders	3060
12.08	Personality Disorders	3010
12.09	Substance Addiction Disorder Alcohol	3030
12.09	Substance Addiction Disorder Drug	3040
**	Borderline Intellectual Functioning	3195*
*Borderline intellectual functioning must not be coded as 3180 (under Intellectual Disability.		
**In the event that borderline intellectual functioning is determined to be of listing level severity, the appropriate listed impairment category on which to find equivalence must be based on consideration of all the manifestations in the particular claim.		
Malignant Neoplastic Diseases (13)		
13.02	Soft Tissue Tumors of Head and Neck	1950
13.03	Malignant Neoplasm of Skin	1730
13.04	Malignant Neoplasm of Connective and Other Soft Tissue	1710
13.05	Lymphoma	2020
13.06	Leukemia	2070
13.07	Multiple Myeloma	2030
13.08	Malignant Neoplasm of Salivary Glands	1420
13.09	Malignant Neoplasm of Thyroid Gland	1930
13.10	Malignant Neoplasm of Breast	1740
13.11	Malignant Neoplasm of Skeletal System	1780
13.12	Malignant Neoplasm of Maxilla, Orbit, or Temporal Fossa	1700
13.13	Malignant Neoplasm of Nervous System	1910
13.14	Malignant Neoplasm of Trachea, Bronchus, or Lung	1620
13.15	Malignant Neoplasm of Pleura	1630
13.15	Malignant Neoplasm of Mediastinum	1640
13.16	Malignant Neoplasm of Esophagus	1500
13.16	Malignant Neoplasm of Stomach	1510
13.17	Malignant Neoplasm of Small Intestine, Including Duodenum	1520
13.18	Malignant Neoplasm of Colon, Rectum or Anus	1530
13.19	Malignant Neoplasm of Liver and Intrahepatic Bile Ducts	1550
13.19	Malignant Neoplasm of Gallbladder and Extrahepatic Bile Ducts	1560
13.20	Malignant Neoplasm of Pancreas	1570
13.21	Malignant Neoplasm of Kidney, Adrenal Glands, or Ureters	1890
13.22	Malignant Neoplasm of Bladder	1880
13.23	Malignant Neoplasm of Uterus	1790
13.23	Malignant Neoplasm of Vulva or Vagina	1840
13.23	Malignant Neoplasm of Ovary and Other Uterine Adnexa	1830
13.24	Malignant Neoplasm of Prostate	1850
13.25	Malignant Neoplasm of Testis	1860
13.26	Malignant Neoplasm of Penis	1870
13.27	Malignant Neoplasm of Unspecified Site	1990
13.28	Malignant Neoplasm Treated by Bone Marrow or Stem Cell Transplantation	0420
Immune System Disorders (14)		

14.02	Systemic Lupus Erythematosus	7100
14.03	Systemic Vasculitis	4460
14.04	Systemic Sclerosis (Scleroderma)	7100
14.05	Polymyositis and Dermatomyositis	7100
14.06	Undifferentiated and Mixed Connective Tissue Disease	7100
14.07	Immune Deficiency Disorders, Excluding HIV Infection	2790
14.08	Human Immunodeficiency Virus (HIV) Infection	0430
14.09	Inflammatory Arthritis	7140
14.09C	Ankylosing Spondylitis or Other Spondyloarthropathies	7200
14.10	Sjögren's Syndrome	7100

D2. General List of Impairment Codes

Impairment Codes	Diagnostic Categories
Musculoskeletal (01)	
7150	Osteoarthrosis and Allied Disorders
7160	Other and Unspecified Arthropathies
7240	Disorders of Back (Discogenic and Degenerative)
3210	Arachnoiditis
7280	Disorders of Muscle, Ligament and Fascia
7300	Osteomyelitis, Periostitis and Other Infections Involving Bone
7330	Other Disorders of Bone and Cartilage (Osteoporosis)
7370	Curvature of Spine
8030	Fracture of Skull Without Intracranial Injury
8060	Fracture of Vertebral Column with Spinal Cord Lesion
8180	Fractures of Upper Limb
8270	Fractures of Lower Limb
8290	Other Fractures of Bones
8390	Dislocations--All Types
8480	Sprains and Strains--All Types
8840	Open Wound of Upper Limb (Soft Tissue Injury)
8940	Open Wound of Lower Limb (Soft Tissue Injury)
9050	Late Effects of Musculoskeletal and Connective Tissue Injuries (Amputation)
9490	Burns
Special Senses and Speech (02)	
3610	Retinal Detachments and Defects
3620	Other Retinal Disorders (Including Diabetic Retinopathy)
3650	Glaucoma
3660	Cataract
3680	Visual Disturbances
3690	Low Vision
3694	Statutory Blindness
3780	Strabismus and Other Disorders of Eye Movements
3860	Vertiginous Syndromes and Other Disorders of Vestibular System
3880	Other Disorders of Ear
3890	Hearing Loss
7840	Loss of Voice

Respiratory (03)	
0110	Pulmonary Tuberculosis
1170	Mycobacterial, Mycotic and Other Chronic Infections of the Lung
1350	Sarcoidosis
2770	Cystic Fibrosis
4160	Cor Pulmonale Secondary to Chronic Pulmonary Vascular Hypertension
4910	Chronic Bronchitis
4920	Emphysema
4930	Asthma
4940	Bronchiectasis
4960	Chronic Pulmonary Insufficiency (COPD)
5010	Asbestosis
5050	Pneumoconiosis
7800	Sleep Related Breathing Disorders
5190	Other Disorders of the Respiratory System
Cardiovascular (04)	
0930	Cardiovascular Syphilis
3910	Rheumatic Fever with Heart Involvement
3950	Diseases of Aortic Valve
3980	Other Rheumatic Heart Disease
4010	Essential Hypertension
4020	Hypertensive Vascular Disease
4030	Hypertensive Vascular and Renal Disease
4100	Acute Myocardial Infarction
4130	Angina Pectoris Without Ischemic Heart Disease
4140	Chronic Ischemic Heart Disease With or Without Angina
4160	Chronic Pulmonary Heart Disease (Cor Pulmonale)
4240	Valvular Heart Disease or Other Stenotic Defects, or Valvular Regurgitation
4250	Cardiomyopathy
4270	Cardiac Dysrhythmias
4280	Heart Failure
4410	Aortic Aneurysm
4430	Peripheral Vascular (Arterial) Disease
4510	Phlebitis and Thrombophlebitis
4540	Varicose Veins of Lower Extremities
4590	Other Diseases of Circulatory System
7460	Congenital Anomalies of Heart
Digestive (05)	
1360	Other Infectious and Parasitic Disorders
2630	Malnutrition (Weight Loss)
4750	Liver Transplantation
5300	Diseases of Esophagus
5330	Peptic Ulcer (Gastric or Duodenal)
5350	Gastritis and Duodenitis
5530	Hernias
5550	Inflammatory Bowel Disease (IBD)
5690	Other Disorders of Gastrointestinal System
5710	Chronic Liver Disease
5780	Gastrointestinal Hemorrhage
5793	Short Bowel Syndrome (SBS)

5799	Need for supplemental daily enteral feeding via a gastrostomy
7500	Congenital Anomalies of Upper Alimentary Tract
Genitourinary (06)	
5810	Nephrotic Syndrome
5830	Complications of Chronic Kidney Disease
5850	Chronic Kidney Disease with Dialysis
5880	Chronic Kidney Disease
5950	Interstitial Cystitis
5990	Other Disorders of the Urinary Tract
6080	Disorders of the Male Genital Organs
6290	Disorders of the Female Genital Organs
7530	Congenital Anomalies of Urinary System
9960	Kidney Transplant
Hematological Disorders (07)	
2380	Polycythemia Vera
2790	Immune Deficiency Disorders, Excluding HIV Infection
2810	Deficiency Anemias
2820	Hereditary Hemolytic Anemias (Including All Sickle Cell)
2840	Aplastic Anemia
2850	Other Anemias
2860	Coagulation Defects (Including Hemophilia)
2870	Purpura and Other Hemorrhagic Conditions
2880	Diseases of White Blood Cells
2890	Other Diseases of Blood and Blood-Forming Organs
4480	Diseases of Capillaries (Hereditary Telangiectasia)
Skin Disorders (08)	
1170	Chronic Infections of the Skin or Mucous Membranes
6940	Bullous Disease
6950	Ichthyosis
6960	Dermatitis
7050	Hidradenitis Suppurativa
7090	Other Disorders of the Skin and Subcutaneous Tissues
7590	Genetic Photosensitivity Disorders
9480	Burns
Endocrine (09)	
2460	All Disorders of Thyroid Gland (Except Malignant Neoplasm)
2500	Diabetes Mellitus
2520	All Disorders of Parathyroid Gland (Except Malignant Neoplasm)
2530	All Disorders of the Pituitary Gland (Except Malignant Neoplasm)
2550	All Disorders of Adrenal Glands (Except Malignant Neoplasm)
Impairments That Affect Multiple Body Systems (10)	
3300	Cerebral Degenerations Usually Manifest in Childhood
7400	Anencephalus and Catastrophic Congenital Abnormality or Disease
7580	Non-mosaic Down Syndrome
Neurological (11)	
0940	Neurosyphilis (Tabes Dorsalis)
1380	Late Effects of Acute Poliomyelitis
2250	Benign Neoplasm of Brain and Other Parts of Nervous System
2810	Deficiency Anemias
3300	Cerebral Degenerations Usually Manifest in Childhood

3310	Other Cerebral Degenerations
3320	Parkinson's Disease
3330	Huntington Disease
3350	Amyotrophic Lateral Sclerosis
3358	Anterior Horn Cell Disease
3360	Other Diseases of Spinal Cord
3370	Disorders of Autonomic Nervous System
3400	Multiple Sclerosis
3430	Cerebral Palsy
3450	Epilepsy
3460	Migraine
3490	Other Disorders of the Nervous System
3540	Carpal Tunnel Syndrome
3570	Diabetic and Other Peripheral Neuropathy
3580	Myoneural Disorders
3590	Muscular Dystrophies and Other Myopathies
4380	Late Effects of Cerebrovascular Disease
7410	Spina Bifida
7840	Loss of Voice
8060	Fracture of Vertebral Column with Spinal Cord Lesion
8540	Intracranial Injury
9070	Late Effects of Injuries to the Nervous System
Mental Disorders (12)	
2940	Organic Mental Disorders (Chronic Brain Syndrome)
2950	Schizophrenic, Paranoid and Other Functional Psychotic Disorders
2960	Affective Disorders
2990	Autism and Other Pervasive Developmental Disorders
3000	Anxiety Related Disorders
3010	Personality Disorders
3030	Substance Addiction Disorders (Alcohol)
3040	Substance Addiction Disorders (Drug)
3060	Somatoform Disorders
3070	Eating and Tic Disorders
3140	Attention Deficit Hyperactivity Disorders
3150	Development and Emotional Disorders of Newborns and Younger Infants
3152	Learning Disorder
3153	Speech and Language Delays
3180	Intellectual Disability
3195	Borderline Intellectual Functioning
*Borderline intellectual functioning must not be coded as 3180 (under Intellectual Disability)	
Malignant Neoplastic Diseases (13)	
0420	Malignant Neoplasm Treated by Bone Marrow or Stem Cell Transplantation
1410	Malignant Neoplasm of Tongue
1420	Malignant Neoplasm of Salivary Glands
1500	Malignant Neoplasm of Esophagus
1510	Malignant Neoplasm of Stomach
1520	Malignant Neoplasm of Small Intestine, Including Duodenum
1530	Malignant Neoplasm of Colon, Rectum or Anus
1550	Malignant Neoplasm of Liver and Intrahepatic Bile Ducts
1560	Malignant Neoplasm of Gallbladder and Extrahepatic Bile Ducts

1570	Malignant Neoplasm of Pancreas
1590	Malignant Neoplasm of Other and Ill-Defined Sites Within the Digestive Organs and Peritoneum (Abdomen)
1620	Malignant Neoplasm of Trachea, Bronchus, or Lung
1630	Malignant Neoplasm of Pleura
1640	Malignant Neoplasm of Mediastinum
1700	Malignant Neoplasm of Maxilla, Orbit, or Temporal Fossa
1710	Malignant Neoplasm of Connective and Other Soft Tissue
1720	Malignant Melanoma of Skin
1730	Malignant Neoplasms of Skin
1740	Malignant Neoplasm of Breast
1780	Malignant Neoplasm of Skeletal System
1790	Malignant Neoplasm of Uterus
1830	Malignant Neoplasm of Ovary and Other Uterine Adnexa
1840	Malignant Neoplasm of Vulva or Vagina
1850	Malignant Neoplasm of Prostate
1860	Malignant Neoplasm of Testis
1870	Malignant Neoplasm of Penis
1880	Malignant Neoplasm of Bladder
1890	Malignant Neoplasm of Kidney, Adrenal Glands, or Ureters
1900	Malignant Neoplasm of Eye
1910	Malignant Neoplasm of Nervous System
1920	Neuroblastoma
1930	Malignant Neoplasm of Thyroid Gland
1940	Malignant Neoplasm of Other Endocrine Glands and Related Structures
1950	Soft Tissue Tumors of Head and Neck
1980	Secondary Malignant Neoplasms (Metastatic Neoplasms of Distant Sites Other Than Regional Lymph Nodes)
1990	Malignant Neoplasms of Unspecified Site
2020	Lymphoma
2030	Multiple Myeloma
2070	Leukemia
2390	Neoplasm of Unspecified or Unknown Nature
2730	Macroglobulinemia or Heavy Chain Disease
Immune System Disorders (14)	
2790	Immune Deficiency Disorders, Excluding HIV Infection
4460	Periarteritis Nodosa and Allied Conditions (Systemic Vasculitis)
7100	Diffuse Diseases of Connective Tissue (including Systemic Lupus Erythematosus, Systemic Sclerosis (Scleroderma), Polymyositis and Dermatomyositis, Undifferentiated and Mixed Connective Tissue Disease, Sjögren's Syndrome)
0430	Symptomatic Human Immunodeficiency Virus (HIV) Infection
0440	Asymptomatic Human Immunodeficiency Virus (HIV) Infection
2740	Gout
7140	Inflammatory Arthritis
7200	Ankylosing Spondylitis or Other Spondyloarthropathies
Growth Impairment (19)	
7649	Birthweight Between 1200 and 2000 Grams and Small For Gestational Age
7650	Birthweight Under 1200 Grams
7830	Malnutrition, Marasmus, Failure to Thrive (Growth Impairment)
Special/Other (20)	
0000	None Established (No Medical Evidence in File)

6490	None Established (Medical Evidence in File But Insufficient to Establish Diagnosis)
2480	Diagnosis Established--No Predetermined List Code of Medical Nature Applicable
2780	Obesity
7290	Fibromyalgia
7590	Other Congenital Anomalies
8690	Internal Injury
8790	Other Open Wounds, Except Limbs
9330	Chronic Fatigue Syndrome (CFS)

D3. List of Symptomatic HIV Infection

Diagnosis (Secondary)	Impairment Code
Anemia	2850
Aspergillosis	1170
Bacterial infections, multiple or current	0410
Bone infection	7300
Brain atrophy	3310
Candidiasis	1120
Carcinoma of the Cervix	1800
Cardiomyopathy	4250
Coccidioidomycosis	1140
Condyloma caused by the human papillomavirus	0780
Cryptococcosis	1170
Cryptosporidiosis	0070
Cytomegalovirus Disease	0780
Diarrhea	5580
Eczema	6920
Endocarditis	4240
Genital ulcerative disease, female	6290
Genital ulcerative disease, male	6080
Granulocytopenia	2880
Growth disturbance	7830
Hepatitis	5730
Herpes Simple	0540
Herpes Zoster	0530
Histoplasmosis	1150
HIV encephalopathy	3480
HIV wasting syndrome	2630
Impaired brain growth	7420
Isosporiasis	0070
Joint Infection	7110
Kaposi's Sarcoma	1760
Leukoencephalopathy	0460
Lymphoid interstital pneumonia (LIP)	5160
Lymphoma	2000
Meningitis	3220
Microcephaly	7420
Microsporidiosis	1360

Mucormycosis	1170
Mycobacterium infection avium intracellulare, caused by M. Kansasii, or M. tuberculosis (except pulmonary tuberculosis)	0310
Nephropathy	5830
Neurological conditions	3490
Neurosyphilis	0940
Nocardiosis	0390
Pancreatitis	5770
Pelvic inflammatory disease	6140
Peripheral neuropathy	3560
Pneumocystis Pneumonia (PCP)	1360
Pneumocystis Infection, extra pulmonary	1360
Pneumonia (non-PCP)	4860
Psoriasis	6960
Pulmonary lymphoid hyperplasia (PLH)	2850
Pulmonary tuberculosis	0110
Salmonella Bacteremia	0030
Sepsis	0380
Septic Arthritis	7110
Sinusitis	4730
Squamous Cell Carcinoma of the Anal Canal or Anal Margin	1540
Strongyloidiasis	1270
Syphilis	0970
Thrombocytopenia	2870
Toxoplasmosis	1300
Vulvovaginal candida	1120

D4. Impairment Codes In Numeric Sequence

Impairment Codes	Body System	Diagnostic Categories
0000	20	None Established (No Medical Evidence in File)
0030	14	Salmonella Bacteremia (Secondary Diagnosis for HIV-0430)
0070	14	Cryptosporidiosis (Secondary Diagnosis for HIV-0430)
	14	Isosporiasis (Secondary Diagnosis for HIV-0430)
0110	03	Pulmonary Tuberculosis
0310	14	Mycobacterium infection avium intracellulare, caused by M. Kansasii, or M. tuberculosis (except pulmonary tuberculosis) (Secondary Diagnosis for HIV-0430)
0380	14	Sepsis (Secondary Diagnosis for HIV-0430)
0390	14	Nocardiosis (Secondary Diagnosis for HIV-0430)
0410	14	Bacterial Infections, Multiple or Recurrent (Secondary Diagnosis for HIV-0430)
0420	13	Malignant Neoplasm Treated by Bone Marrow or Stem Cell Transplantation
0430	14	Symptomatic Human Immunodeficiency Virus (HIV) Infection
0440	14	Asymptomatic Human Immunodeficiency Virus (HIV) Infection
0460	14	Leukoencephalopathy (Secondary Diagnosis for HIV-0430)
0530	14	Herpes Zoster (Secondary Diagnosis for HIV-0430)
0540	14	Herpes Simplex (Secondary Diagnosis for HIV-0430)
0780	14	Condyloma Caused by the Human Papillomavirus (Secondary Diagnosis for HIV-0430)

	14	Cytomegalovirus Disease (Secondary Diagnosis for HIV-0430)
0930	04	Cardiovascular Syphilis
0940	11	Neurosyphilis (Tabes Dorsalis)
0940	14	Neurosyphilis (Secondary Diagnosis for HIV-0430)
0970	14	Syphilis (Secondary Diagnosis for HIV-0430)
1120	14	Candidiasis (Secondary Diagnosis for HIV-0430)
	14	Vulvovaginal Candida (Secondary Diagnosis for HIV-0430)
1140	14	Coccidiodomycosis (Secondary Diagnosis for HIV-0430)
1150	14	Histoplasmosis (Secondary Diagnosis for HIV-0430)
1170	03	Mycobacterial, Mycotic and Other Chronic Infections of the Lung
	08	Chronic Infections of the Skin or Mucous Membranes
	14	Aspergillosis (Secondary Diagnosis for HIV-0430)
	14	Cryptococcosis (Secondary Diagnosis for HIV-0430)
	14	Mucormycosis (Secondary Diagnosis for HIV-0430)
1270	14	Strongyloidiasis (Secondary Diagnosis for HIV-0430)
1300	14	Toxoplasmosis (Secondary Diagnosis for HIV-0430)
1350	03	Sarcoidosis
1360	05	Other Infectious and Parasitic Disorders
	14	Microsporidiosis (Secondary Diagnosis for HIV-0430)
	14	Pneumocystis Infection, extra-pulmonary (Secondary Diagnosis for HIV-0430)
	14	Pneumocystis Pneumonia (PCP) (Secondary Diagnosis for HIV-0430)
1380	11	Late Effects of Acute Poliomyelitis
1410	13	Malignant Neoplasm of Tongue
1420	13	Malignant Neoplasm of Salivary Glands
1500	13	Malignant Neoplasm of Esophagus
1510	13	Malignant Neoplasm of Stomach
1520	13	Malignant Neoplasm of Small Intestine, Including Duodenum
1530	13	Malignant Neoplasm of Colon, Rectum or Anus
1540	14	Squamous Cell Carcinoma of the Anal Canal or Anal Margin (Secondary Diagnosis for HIV-0430)
1550	13	Malignant Neoplasm of Liver and Intrahepatic Bile Ducts
1560	13	Malignant Neoplasm of Gallbladder and Extrahepatic Bile Ducts
1570	13	Malignant Neoplasm of Pancreas
1590	13	Malignant Neoplasm of Other and Ill-Defined Sites Within the Digestive Organs and Peritoneum (Abdomen)
1620	13	Malignant Neoplasm of Trachea, Bronchus, or Lung
1630	13	Malignant Neoplasm of Pleura
1640	13	Malignant Neoplasm of Mediastinum
1700	13	Malignant Neoplasm of Maxilla, Orbit, or Temporal Fossa
1710	13	Malignant Neoplasm of Connective and Other Soft Tissue
1720	13	Malignant Melanoma of Skin
1730	13	Malignant Neoplasm of Skin
1740	13	Malignant Neoplasm of Breast
1760	14	Kaposi's Sarcoma (Secondary Diagnosis for HIV-0430)
1780	13	Malignant Neoplasm of Skeletal System
1790	13	Malignant Neoplasm of Uterus
1800	14	Carcinoma of the Cervix (Secondary Diagnosis for HIV-0430)
1830	13	Malignant Neoplasm of Ovary and Other Uterine Adnexa
1840	13	Malignant Neoplasm of Vulva
1850	13	Malignant Neoplasm of Prostate
1860	13	Malignant Neoplasm of Testis

1870	13	Malignant Neoplasm of Penis
1880	13	Malignant Neoplasm of Bladder
1890	13	Malignant Neoplasm of Kidney, Adrenal Glands, or Ureters
1900	13	Malignant Neoplasm of Eye
1910	13	Malignant Neoplasm of Nervous System
1920	13	Neuroblastoma
1930	13	Malignant Neoplasm of Thyroid Gland
1940	13	Malignant Neoplasm of Other Endocrine Glands and Related Structures
1950	13	Soft Tissue Tumors of Head and Neck
1980	13	Secondary Malignant Neoplasms (Metastatic Neoplasms of Distant Sites Other Than Regional Lymph Nodes)
1990	13	Malignant Neoplasm of Unspecified Site
2000	14	Lymphoma (Secondary Diagnosis for HIV-0430)
2020	13	Lymphoma
2030	13	Multiple Myeloma
2070	13	Leukemia
2250	11	Benign Neoplasm of Brain and Other Parts of Nervous System
2380	07	Neoplasm of Uncertain Behavior of Other Sites and Tissues (Polycythemia Vera)
2390	13	Neoplasm of Unspecified or Unknown Nature
2460	09	All Disorders of Thyroid Gland (Except Malignant Neoplasm)
2480	20	Diagnosis Established--No Predetermined List Code of Medical Nature Applicable
2500	09	Diabetes Mellitus
2520	09	All Disorders of Parathyroid Gland (Except Malignant Neoplasm)
2530	09	All Disorders of the Pituitary Gland (Except Malignant Neoplasm)
2550	09	All Disorders of Adrenal Glands (Except Malignant Neoplasm)
2630	05	Malnutrition (Weight Loss)
	14	HIV Wasting Syndrome (Secondary Diagnosis for HIV-0430)
2720	04	Hyperlipidemia
2730	13	Macroglobulinemia or Heavy Chain Disease
2740	14	Gout
2770	03	Cystic Fibrosis
2780	20	Obesity
2790	07	Immune Deficiency Disorders, Excluding HIV Infection
2790	14	Immune Deficiency Disorders, Excluding HIV Infection
2810	07	Deficiency Anemias
	11	Deficiency Anemias (such as Pernicious Anemia)
2820	07	Hereditary Hemolytic Anemias (Including All Sickle Cell)
2840	07	Aplastic Anemia
2850	07	Other Anemias
2850	14	Anemia (Secondary Diagnosis for HIV-0430)
	14	Pulmonary Lymphoid Hyperplasia (PLH) (Secondary Diagnosis for HIV-0430)
2860	07	Coagulation Defects (Including Hemophilia)
2870	07	Purpura and Other Hemorrhagic Conditions
	14	Thrombocytopenia (Secondary Diagnosis for HIV-0430)
2880	07	Diseases of White Blood Cells
	14	Granulocytopenia (Secondary Diagnosis for HIV-0430)
2890	07	Other Diseases of Blood and Blood-Forming Organs
2940	12	Organic Mental Disorders (Chronic Brain Syndrome)
2950	12	Schizophrenic, Paranoid and Other Functional Psychotic Disorders
2960	12	Affective/Mood Disorders

2990	12	Autism and Other Pervasive Developmental Disorders
3000	12	Anxiety Disorders
3010	12	Personality Disorders
3030	12	Substance Addiction/Dependence Disorders (Alcohol)
3040	12	Substance Addiction/Dependence Disorders (Drug)
3060	12	Somatoform Disorders
3070	12	Eating and Tic Disorders
3120	12	Conduct Disorder
3138	12	Oppositional/Defiant Disorder
3140	12	Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder
3150	12	Development and Emotional Disorders of Newborns and Younger Infants
3152	12	Learning Disorder
3153	12	Speech and Language Delays
3180	12	Intellectual Disability
3195	12	Borderline Intellectual Functioning *
*Borderline intellectual functioning must not be coded as 3180 (under Intellectual Disability)		
3210	01	Arachnoiditis
3220	14	Meningitis (Secondary Diagnosis for HIV-0430)
3250	03	Lung Transplant
3300	10	Cerebral Degenerations Usually Manifest in Childhood
	11	Cerebral Degenerations Usually Manifest in Childhood
3310	11	Other Cerebral Degenerations
	14	Brain Atrophy (Secondary Diagnosis for HIV-0430)
3320	11	Parkinson's Disease
3330	11	Huntington Disease
3358	11	Anterior Horn Cell Disease (
3350	11	Amyotrophic Lateral Sclerosis
3360	11	Other Diseases of Spinal Cord
3370	11	Disorders of Autonomic Nervous System
3400	11	Multiple Sclerosis
3430	11	Cerebral Palsy
3450	11	Epilepsy
3460	11	Migraine
3480	14	HIV Encephalopathy (Secondary Diagnosis for HIV-0430)
3490	11	Other Disorders of the Nervous System
	14	Neurological Conditions (Secondary Diagnosis for HIV-0430)
3540	11	Carpal Tunnel Syndrome
3560	14	Peripheral Neuropathy (Secondary Diagnosis for HIV-0430)
	11	Peripheral Neuropathy
3580	11	Myoneural Disorders
3590	11	Muscular Dystrophies and Other Myopathies
3610	02	Retinal Detachments and Defects
3620	02	Other Retinal Disorders (Including Diabetic Retinopathy)
3650	02	Glaucoma
3660	02	Cataract
3680	02	Visual Disturbances
3690	02	Low Vision
3694	02	Statutory Blindness
3750	04	Cardiac Transplantation
3780	02	Strabismus and Other Disorders of Eye Movements

3860	02	Vertiginous Syndromes and Other Disorders of Vestibular System
3880	02	Other Disorders of Ear
3890	02	Hearing Loss
3910	04	Rheumatic Fever with Heart Involvement
3950	04	Diseases of Aortic Valve
3980	04	Other Rheumatic Heart Disease
4010	04	Essential Hypertension
4020	04	Hypertensive Cardiovascular Disease
4030	04	Hypertensive Vascular and Renal Disease
4100	04	Acute Myocardial Infarction
4130	04	Angina Pectoris Without Ischemic Heart Disease
4140	04	Chronic Ischemic Heart Disease With or Without Angina
4160	03	Cor Pulmonale Secondary to Chronic Pulmonary Vascular Hypertension
	04	Chronic Pulmonary Heart Disease (Cor Pulmonale)
4240	04	Valvular Heart Disease or Other Stenotic Defects or Valvular Regurgitation
	14	Endocarditis (Secondary Diagnosis for HIV-0430)
4250	04	Cardiomyopathy
4270	04	Cardiac Dysrhythmias (Arrhythmias)
4280	04	Heart Failure
4380	11	Late Effects of Cerebrovascular Disease
4410	04	Aneurysm of Aorta or Major Branches
4430	04	Peripheral Vascular (Arterial) Disease
4460	04	Kawasaki Syndrome
	14	Periarteritis Nodosa and Allied Conditions (Systemic Vasculitis)
4480	07	Diseases of Capillaries (Hereditary Telangiectasia)
4510	04	Phlebitis and Thrombophlebitis
4540	04	Varicose Veins of Lower Extremities
4590	04	Other Diseases of Circulatory System (Venous Insufficiency)
4730	14	Sinusitis (Secondary Diagnosis for HIV-0430)
4750	05	Liver Transplant
4860	14	Pneumonia (non-PCP) (Secondary Diagnosis for HIV-0430)
4910	03	Chronic Bronchitis
4920	03	Emphysema
4930	03	Asthma
4940	03	Bronchiectasis
4960	03	Chronic Pulmonary Insufficiency (COPD)
5010	03	Asbestosis
5050	03	Pneumoconiosis
5160	14	Lymphoid Interstitial Pneumonia (LIP) (Secondary Diagnosis for HIV-0430)
5190	03	Other Disorders of the Respiratory System
5300	05	Diseases of Esophagus
5330	05	Peptic Ulcer (Gastric or Duodenal)
5350	05	Gastritis and Duodenitis
5530	05	Hernias
5550	05	Inflammatory bowel disease (IBD)
5580	14	Diarrhea (Secondary Diagnosis for HIV-0430)
5690	05	Other Disorders of Gastrointestinal System
5710	05	Chronic liver disease
5730	14	Hepatitis (Secondary Diagnosis for HIV-0430)
5770	14	Pancreatitis (Secondary Diagnosis for HIV-0430)

5780	05	Gastrointestinal hemorrhaging from any cause
5793	05	Short bowel syndrome (SBS)
5799	05	Need for supplemental daily enteral feeding via a gastrostomy
5810	06	Nephrotic Syndrome
5830	14	Nephropathy (Secondary Diagnosis for HIV-0430)
5830	06	Complications of Chronic Kidney Disease
5850	06	Chronic Kidney Disease with Dialysis
5880	06	Chronic Kidney Disease
5950	06	Interstitial Cystitis
5990	06	Other Disorders of the Urinary Tract
6080	06	Disorders of the Male Genital Organs
	14	Genital Ulcerative Disease, Male (Secondary Diagnosis for HIV-0430)
6140	14	Pelvic Inflammatory Disease (Secondary Diagnosis for HIV-0430)
6290	06	Disorders of the Female Genital Organs
	14	Genital Ulcerative Disease, Female (Secondary Diagnosis for HIV-0430)
6490	20	None Established (Medical Evidence in File But Insufficient to Establish Diagnosis)
6920	14	Eczema (Secondary Diagnosis for HIV-0430)
6940	08	Bullous Disease
6950	08	Ichthyosis
6960	08	Dermatitis
	14	Psoriasis (Secondary Diagnosis for HIV-0430)
7050	08	Hidradenitis Suppurativa
7090	08	Other Disorders of the Skin and Subcutaneous Tissues
7100	14	Diffuse Diseases of Connective Tissue (including Systemic Lupus Erythematosus, Systemic Sclerosis (Scleroderma), Polymyositis and Dermatomyositis, Undifferentiated and Mixed Connective Tissue Disease, Sjögren's Syndrome)
7110	14	Joint Infection (Secondary Diagnosis for HIV-0430)
7110	14	Septic Arthritis (Secondary Diagnosis for HIV-0430)
7140	14	Inflammatory Arthritis
7150	01	Osteoarthrosis and Allied Disorders
7160	01	Other and Unspecified Arthropathies
7200	14	Ankylosing Spondylitis or Other Spondyloarthropathies
7240	01	Disorders of Back (Discogenic and Degenerative)
7280	01	Disorders of Muscle, Ligament and Fascia
7290	20	Fibromyalgia
7300	01	Osteomyelitis, Periostitis and Other Infections Involving Bone
7300	14	Bone Infection (Secondary Diagnosis for HIV-0430)
7330	01	Other Disorders of Bone and Cartilage (Osteoporosis)
7370	01	Curvature of Spine
7400	10	Anencephalus and Catastrophic Congenital Abnormality or Disease
7410	11	Spina Bifida (Meningomyelocele)
7420	14	Impaired Brain Growth (Secondary Diagnosis for HIV-0430)
	14	Microcephaly (Secondary Diagnosis for HIV-0430)
7460	04	Congenital Heart Disease
7500	05	Congenital Anomalies of Upper Alimentary Tract
7530	06	Congenital Anomalies of Urinary System
	10	Non-mosaic Down Syndrome
7590	08	Genetic Photosensitivity Disorders
	20	Other Congenital Anomalies
7649	19	Birthweight Between1200 and2000 Grams and Small For Gestational Age
7650	19	Birthweight Under1200 Grams

7800	03	Sleep-Related Breathing Disorders
7830	14	Growth Disturbance (Secondary Diagnosis for HIV-0430)
	19	Malnutrition, Marasmus, Failure to Thrive (Growth Impairment)
7840	02	Loss of Voice
	11	Loss of Voice
8030	01	Fracture of Skull Without Intracranial Injury
8060	01	Fracture of Vertebral Column with Spinal Cord Lesion
	11	Fracture of Vertebral Column with Spinal Cord Lesion
8180	01	Fractures of Upper Limb
8270	01	Fractures of Lower Limb
8290	01	Other Fractures of Bones
8390	01	Dislocations--All Types
8480	01	Sprains and Strains--All Types
8540	11	Intracranial Injury
8690	20	Internal Injury
8790	20	Other Open Wounds, Except Limbs
8840	01	Open Wound of Upper Limb (Soft Tissue Injury)
8940	01	Open Wound of Lower Limb (Soft Tissue Injury)
9050	01	Late Effects of Musculoskeletal and Connective Tissue Injuries (Amputation)
9070	11	Late Effects of Injuries to the Nervous System
9330	20	Chronic Fatigue Syndrome (CFS)
9480	08	Burns
9490	01	Burns (NOS)
9960	06	Kidney Transplant

D5. Unmatched Diagnostic Codes

The following diagnostic codes appearing in Section A variables DIG, SDIG, ODIG, and OSDIG do not have a match in the code lists contained in this Appendix. At this point in time, there is no explanation for this omission.

0001	3831	7159
0010	4019	7165
0100	4101	7185
0715	4104	7190
1390	4109	7199
1960	4149	7210
2560	4292	7220
2901	4310	7225
2953	4349	7226
2956	4360	7228
2963	4549	7244
3001	4598	7291
3035	5379	7331
3100	5560	7380
3110	5680	7930
3439	6440	8159
3579	6790	8970
3710	7110	9089
3771	7153	9521

Appendix E: Installation (Traditional License Only)

E1. Distribution Set

This data set is packaged for distribution in a .ZIP file, `xyrben2020.zip`. In order to keep the contents secure, the .ZIP file has been encrypted using WinZIP 256 bit AES encryption. Extract the data file(s), the program statement file(s) matching your analysis environment, the data description (this file), and the codebook file. If you require a special file format or experience system problems, please contact the [HRS Help Desk](). If all files are decompressed, they will require approximately 1 GB of free space on your storage device.

E1-1. Windows Environment

Copy the ZIP file to the Windows folder where you plan to do your work. Do not use the built-in Windows decompression utility; instead use a third-party tool such as **7-zip** or **WinZIP** to extract the ZIP folder contents. When you are prompted for the pass-phrase, respond with the character string that you received via e-mail. The output will be the files listed in Table 1.

E1-2. UNIX/Linux Environment

Copy the ZIP file to the folder where you plan to do your work. Use the ZIP file decompression software installed on your system, (e.g. **7-zip, gunzip**) to decrypt and decompress the ZIP folder contents. When you are prompted for the pass-phrase, respond with the character string that you received via e-mail. The output will be the files listed in Table 1.

E1-3. macOS X Environment (10.4.x and above)

Copy the ZIP file to the folder where you plan to do your work and use **stuffit** to decrypt and decompress the ZIP folder contents. When you are prompted for the pass-phrase, respond with the character string that you received via e-mail. The output will be the files listed in Table 1.

Note: MiCDA Enclave Virtual Desktop Environment users are given access to pre-built SAS, Stata and SPSS versions of this dataset; therefore the information in this appendix does not apply to such users.

Table 1: Contents of Distribution Package

Directory[11]	File	Type
c:\BenXyear\	xyrben.zip	zip file
c:\BenXyear\docs\	ben1A_r.txt	Codebook files (ASCII text)
	ben1B_r.txt	
	ben1C_r.txt	
	ben1D_r.txt	
	ben1E_r.txt	
	ben1F_r.txt	
	ben1G_r.txt	
	ben1J_r.txt	
c:\BenXyear\data\	ben1A_r.da	Data files (ASCII text)
	ben1B_r.da	
	ben1C_r.da	
	ben1D_r.da	
	ben1E_r.da	
	ben1F_r.da	
	ben1G_r.da	
	ben1J_r.da	
c:\BenXyear\sas\	ben1A_r.sas	SAS program statements
	ben1B_r.sas	
	ben1C_r.sas	
	ben1D_r.sas	
	ben1E_r.sas	
	ben1F_r.sas	
	ben1G_r.sas	
	ben1J_r.sas	
c:\BenXyear\spss\	ben1A_r.sps	SPSS program statements
	ben1B_r.sps	
	ben1C_r.sps	
	ben1D_r.sps	
	ben1E_r.sps	
	ben1F_r.sps	
	ben1G_r.sps	
	ben1J_r.sps	
c:\BenXyear\stata\	ben1A_r.do/.dct	Stata dictionary and "do" files
	ben1B_r.do/.dct	
	ben1C_r.do/.dct	
	ben1D_r.do/.dct	
	ben1E_r.do/.dct	
	ben1F_r.do/.dct	
	ben1G_r.do/.dct	
	ben1J_r.do/.dct	

E2. 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 an .sps extension, those with SAS

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[11] While a specific folder arrangement is not required for using HRS files, we have traditionally suggested a directory structure for the Windows environment. By using this directory structure, you will not have to change the path name references in your data descriptor files. **Note: Non-Windows users should review Appendix E for information on an alternative approach**..

statements with an .sas extension, and those with Stata statements with .do and .dct extensions. The files are keyed on Household Identifier, Other Person Number and Sub-Household Identifier.

E2-1. Using the Files with SAS

To create a SAS system file for a particular data set, two file types must be present for that data set -- .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:\benxyear\sas" and the data file is located in c:\benxyear\data", you can run the file as is. A SAS system file will be saved to directory "c:\benxyear\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.

E2-2. Using the Files with SPSS

To create an SPSS system file for a particular data set, two file types must be present for that data set -- .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:\benxyear\spss" and the data file is located in "c:\benxyear\data", you can run the file as is. An SPSS system file (*.sav) will be saved to directory
"c:\benxyear\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.

E2-3. Using the Files with Stata

To use Stata with a particular data set, the following three file types must be present for that data set -- .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:\benxyear\stata" and the data file is located in "c:\benxyear\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.

E3. Non-Windows Environments

Non-Microsoft users should modify the default Windows file structure syntax to match that of their own operating system. The following examples should work for both macOS X and any Unix/Linux distribution. Open the SAS program file(s), SPSS syntax file(s) or the Stata do/dct files in an ASCII editor and make the changes indicated below.

E3-1. SPSS in a macOS Environment (10.4.x and above)

In this example, we assume that:
- The username is "user1"
- The encrypted zip file containing the data set has been copied to the user's desktop.
- The user has decrypted/decompressed the zip file (use Stuffit for OS X) into a Desktop folder named **benxyear**
- The ASCII data files are stored in sub-folder **data** and the syntax files in sub-folder **spss**.
- We want to use the PHUS data

The commands in the syntax file should be modified to look like this:

```
FILE HANDLE benxyear /name='Desktop/benxyear/data/Ben1J_r.da'
RECL=221. DATA LIST FILE= benxyear/
HHID 1-6(A)
```

[rest of syntax file goes here]
```
.
execute.
SAVE /outfile
'Desktop/benxyear/spss/Ben1J_r.sav'. Execute.
```

E3-2. STATA in a macOS Environment (10.4.x and above)

In the following example we assume that:
- The username is "user1"
- The encrypted zip file containing the data set has been copied to the user's desktop.
- The user has decrypted /decompressed the zip file (use Stuffit for OS X) into a desktop folder named benxyear
- The ASCII data file is stored in sub-folder **data** and the .do/.dct files in sub-folder **stata**.

File BENXYEAR.do should be modified as follows:
Change…
```
infile using c:\benxyear\stata\benxyear2016.dct
```
To…
```
infile using /Users/user1/Desktop/benxyear/stata/Ben1J_r.dct
```

Change…
```
save c:\benxyear\stata\Ben1J_r.dta
```
To…
```
save /Users/user1/Desktop/benxyear/stata/Ben1J_r.dta
```

File BENXYEAR.dct should be modified as follows:

Change…
```
dictionary using c:\benxyear\data\Ben1J_r.da {…}
```
To…
```
dictionary using /Users/user1/Desktop/benxyear/data/Ben1J_r.da {…}
```

Appendix F: Cohort Permission Status

Cohort	1992/94/96	1993/95	1998/2000	2004	2006: Asked If Face-to-face and…	2008: Asked if Enhanced Face-to-face and…	2010: Asked if Enhanced Face-to-face and…	2012: Asked if Enhanced Face-to-face and…	2014: Asked if Enhanced Face-to-face and…	2016: Asked if Enhanced Face-to-face and…	2018: Asked if Enhanced Face-to-face and…	2020: Asked if Enhanced Face-to-face and…
New spouses or never-interviewed R in any cohort	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all	Asked all
AHEAD (Born <=1923)	NO	Asked all	NO	NO	R was not asked in 2004	R refused, did not provide valid permission information, was not asked, or was non-response in 2004 or 2006	R refused, did not provide valid permission information, was not asked, or was non-response in 2006 or 2008	R refused, did not provide valid permission information, was not asked, or was non-response in 2006, 2008 or 2010	R refused, did not provide valid permission information, was not asked, or was non-response in 2006, 2008, 2010 or 2012	R refused, did not provide valid permission information, was not asked, or was non-response in 2006, 2008, 2010, 2012 or 2014	R refused, did not provide valid permission information, was not asked, or was non-response in 2006, 2008, 2010, 2012, 2014, or 2016	R refused, did not provide valid permission information, was not asked, or was non-response in 2006, 2008, 2010, 2012, 2014, 2016, or 2018
CODA (1924-1930)	NA	NA	Asked all	NO								
HRS (1931-1941)	Asked all	NO	NO	Asked all								
WAR BABY (1942-1947)	NA	NA	Asked all	Only asked refusers								
EARLY BOOMERS (1948-1953)	NA	NA	NA	Asked all								
MID BOOMERS (1954-1959)	NA	NA	NA	NA	NA	NA	Asked all					
LATE BOOMERS (1960-1965)	NA	NA	NA	NA	NA	NA	NA	NA	NA	Asked all		

F1. Source Information

As seen in the foregoing table, the inputs to this dataset were received at different points in time over the past decade from the Social Security Administration:

- In 1992, 1994 or 1996 for HRS cohort members
- In 1993 or 1995 for AHEAD cohort members
- In 1998 or 2000 for CODA and War Baby cohort members as well as new spouses
- In 2004 for EBB and HRS cohort members, new spouses, and War Baby 1998/2000 refusers
- In 2006, 2008, 2010, 2012, 2014, 2016, 2018, and 2020 for
  - New sample members (MBB, LBB)
  - Respondents (in all cohorts) interviewed enhanced face-to-face who were not asked previously or refused or were non-response.

F2. Information Received from SSA in Spring 2022

Consent Wave	Summary Earnings	Detail Earnings	Benefits (MBR and PHUS)	Form 831 SSI
2006	No	No	Yes, through 2018	Yes, through 2018
2008				
2010			Yes, through 2020	Yes, through 2020
2012				
2014	Yes, through 2020	Yes, through 2020		
2016				
2018				
2020				

F3. Limits for Information Obtained Through Respondent Consent Forms

1. Prior to 2006, respondent permissions were based on separate agreements between HRS and SSA. This meant that information was obtained only for the time period and respondent cohort(s) covered by the agreement.
2. In 2006 the terms of the consent form were altered, allowing HRS to obtain updates of earnings and benefits data for all years up to and including the current year. The term of these consents was defined as year of signing through 2030.
3. In 2018 the respondent consent form[12] MOA terms were revised, limiting earnings permissions to year of signing through Survey Year + 6, and earnings permissions to year of signing through Survey Year + 12.
4. In future years, post-2004 respondents will need new earnings/benefits data consents once their Survey Year + 6/+12 anniversary has been reached.

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[12] In 1998 through 2014, HRS-SSA agreements included provisions for obtaining benefits and earnings information for deceased spouses. The deceased spouse option was dropped in 2016.