RAND HRS CAMS Data File 2019 (V2) Documentation

Includes 2001-2019 (Final Release)

Michael Hurd, Susann Rohwedder, Joanna Carroll, Jessica Hayes, Colleen McCullough

September 2023

RAND
CORPORATION

Contents

What's New in Version 2019 (V2) of the RAND HRS CAMS Data File?

Version 2019 (V2) incorporates the most recent versions of the CAMS survey files and the RAND HRS Longitudinal File 2020 (V1). The current versions of the CAMS surveys used in Version 2019 (V2) are:

- 2001 Final V3
- 2003 Final V2
- 2005 Final V1
- 2007 Final V1
- 2009 Final V1
- 2011 Final V2
- 2013 Final V2
- 2015 Final V1
- 2017 Final V1
- 2019 Final V1

We have made the following changes to the file:

- **CAMS 2019 Weights:** We added final household (H14CWGTHH) and Respondent-level (H14CWGTR) weights for CAMS 2019.

- **CAMS 2019 Consumption Variables:** We added the 2019 CAMS consumption variables (H14CCTOT, H14CCDUR, H14CCTRANS, H14CCHOUS and H14CCHREQF).

- **Category-level Variables:** We added all category-level variables for spending and consumption. For example, all five individual components of durable spending are now included (HwCSFRIDGE, HwCSWASHDRY, HwCSDISHW, HwCSTV, and HwCSPC).

- **Revised Variable Naming Convention:** Previously, variables were given a suffix of either "S" for spending or "C" for consumption measures. However, to accommodate the multitude of new category-level variables, the naming convention has been changed. We now use the fourth character position to distinguish between spending and consumption measures. An "S" in the fourth position indicates that it is a spending variable and a "C" in the fourth position indicates that it is a consumption variable. For example, HwCSTV refers to television spending while HwCCTV refers to television consumption.

- **Revised Imputation for Spending Amounts** We have updated our spending amount imputations to a regression-based approach which reflects more closely the variability of spending across households by observable characteristics. Please see the revised sections "1.11 Cleaning and Imputation of Spending Variables" and "1.12 Imputation of Auto Purchases" for a discussion of the new process.

- **Revised Imputation Flags for Spending Amounts** As a result of revised spending amount imputations, the values of our spending imputation flags have changed. The data codebook indicates the new values in the frequency tables.

- **Household Identifiers:** We added household identifiers to this file to allow for household-level merging to the RAND HRS Longitudinal File and other HRS data products. Because there is one CAMS spending section response per household, the analyst may want to merge the RAND CAMS spending data to the RAND HRS Longitudinal file at the household level using HwHHID by wave. Please see section "1.4 Merging to the HRS" for more details.

- **Appendix:** We added an Appendix with two sections. Section A details the ID adjustments made to the RAND HRS CAMS Data File, and Section B details the spending changes incorporated into the file.

1. Introduction and Overview

The Consumption and Activities Mail Survey (CAMS) is a paper-and-pencil survey that is collected biennially in odd-numbered years. One of its primary objectives is to measure total household spending over the previous 12 months. It is an ongoing supplement to the Health and Retirement Study (HRS), which is a longitudinal survey representative of the U.S. population over the age of 50. For more information on the HRS, please visit their website at (hrsonline.isr.umich.edu).

In September 2001, the first CAMS survey was mailed to 5,000 households selected at random from households that participated in the HRS 2000 core survey. Nine more CAMS surveys were fielded in September 2003, October 2005, September 2007, September 2009, September 2011, fall 2013, fall 2015, fall 2017, and fall 2019, with plans to field the survey every two years. The structure of the questionnaire is similar across waves to facilitate panel analysis.

The CAMS survey consists of three parts. In Part A, the Respondent is asked about the amount of time spent on each of 30 activities, such as watching TV or preparing meals.[1] Part B collects information on actual spending for more than 30 categories, as well as anticipated and recollected changes in spending at retirement. Part C asks about current labor force status.[2]

With the goal of making the data from the survey more accessible to researchers, the RAND Center for the Study of Aging, with funding and support from the National Institute on Aging (NIA) and the Social Security Administration (SSA), created the RAND HRS CAMS Data Files. This document describes the RAND HRS CAMS Data File 2019 (V2).

The RAND HRS CAMS Data File is a user-friendly version of Part B of the CAMS survey. It contains annualized, cleaned, and aggregated spending and consumption variables with consistent and intuitive naming conventions across waves. Specifically, total household spending and household consumption are calculated across all categories and for these subsets of spending: nondurables, durables, housing and transportation. This data file can be easily merged to the RAND HRS Longitudinal File and other RAND HRS data products as described in "1.3 Merging to HRS files."

The data described in this document are based on CAMS 2001 (Version 3), 2003 (Version 2), 2005 (Version 1), 2007 (Version 1), 2009 (Version 1), 2011 (Version 2), 2013 (Version 2), 2015 (Version 1), 2017 (Version 1) and 2019 (Version 1) final data releases.

1.1 Confidentiality and Access Restrictions

The data described in this document are based on HRS public release files. Before using the data, you must obtain permission from the Institute for Social Research (ISR) at the University of Michigan by registering with them for downloading the public release files. By registering with ISR you agree to the "Conditions of Use" governing access to the data. This agreement applies to the use of the RAND HRS Longitudinal File and the RAND HRS CAMS Data File as well.

RESTRICTED DATA USERS, PLEASE NOTE: If you are using any HRS/AHEAD restricted data such as SSA data, you should check whether you may merge them with the RAND HRS Longitudinal File or the RAND HRS CAMS Data File. If you intend to use the RAND HRS Longitudinal File or RAND HRS CAMS Data File with restricted data, please visit our restricted data page (https://hrs.isr.umich.edu/ data-products/restricted-data) and in the HRS Restricted Data links box, follow the Contact Information link to send an e-mal to HRS Restricted Data Applications Processing (hrsrdaapplication@umich.edu). Restricted data users are reminded that ISR must be informed of any data files used in conjunction with restricted data. There are **NO RESTRICTED DATA on the RAND HRS Longitudinal File or RAND HRS CAMS Data File**. The HRS website contains information on the processes to register for access to HRS public release data (https://hrsdata.isr.umich.edu/data-pro ducts).

---

[1] Starting with CAMS 2005 and onward a separate questionnaire on time-use was sent to the spouses of CAMS Respondents. The questionnaires sent to spouses did not ask any spending questions.
[2] In 2001 CAMS part C there were questions about the use of prescription drugs.

1.2 Data File Structure

The RAND HRS CAMS Data File is a single file which includes ten waves of CAMS data. In September 2001, the first CAMS survey was mailed to 5,000 households selected at random from households that participated in HRS 2000 (RAND HRS Wave 5). In September 2003, October 2005, September 2007, September 2009, September 2011, fall 2013, fall 2015, fall 2017, and fall 2019, CAMS waves 2 to 10 were sent to the same households. In CAMS 2005, an additional sub-sample was included, consisting of the newly added Early Baby-Boomers cohort that was first recruited into the HRS sample as part of the HRS 2004 core survey. Likewise, in CAMS 2011 and 2017, respectively, sub-samples were added targeting portions of the new Mid Baby-Boomers and Late Baby-Boomers cohorts that were first recruited for the HRS 2010 and 2016 core surveys. An additional portion of the Late Baby-Boomer cohort was added to the CAMS 2019 sample.

In order to facilitate analysis of the RAND HRS CAMS Data File in conjunction with the RAND HRS Longitudinal File, RAND HRS CAMS derived variables are given the wave number of the preceding HRS wave. CAMS 2001 is the first wave of the CAMS survey, but it is given Wave 5 variable names to align with the household characteristics of RAND HRS Wave 5 (fielded in 2000). We chose this alignment because each CAMS wave uses the sample of the preceding HRS wave as its sampling frame. As a result, most CAMS observations within a wave will have a matching observation in the preceding wave that can be used for merging purposes (but not necessarily in the subsequent HRS wave).

In the case of a coupled household, the full CAMS questionnaire was sent to one of the spouses, chosen at random, in each HRS household.[3] The instructions for Part B requested that the person most knowledgeable about the topics be involved in answering the questions, and the Respondent was asked to provide spending information for all members of the household. The RAND HRS CAMS Data File is an individual-level file of all CAMS Respondents who have completed at least one wave of the CAMS Part B survey section. The spending information associated with each individual record reflects the spending of that Respondent's household. Spouses of the CAMS Respondents are not included on the file.

Over time, household compositions can change through divorce, widowing and marriage. From the time of the HRS 2000 survey to the CAMS 2001 survey, some households may have experienced a change. However, the CAMS survey asks for the Respondent's marital status, so the researcher can take into consideration any reported changes in marital status.

Timing of CAMS spending measure and alignment with HRS core waves
Also worth noting is that although the CAMS data are matched to the previous wave's household structure, the spending data will not line up with other financial data, such as wealth and income measures, in terms of timing. For example, HRS 2002 collects total income for the calendar year of 2001, which coincides with the CAMS 2001 spending measure, but the CAMS data are linked to the HRS 2000 household and have a Wave 5 prefix instead of a Wave 6 prefix.

1.3 The SAS Format Library

Many of the derived variables on this file have been assigned SAS formats, or value labels. We are providing SAS code to allow the researcher to create their own formats catalog on any computing platform.

To create a formats catalog, assuming camssasfmts.sas7bdat is in `C:\randhrs\sasdata`, simply run the following code:

```
libname library "C:\randhrs\sasdata";
proc format library=library cntlin=library.camssasfmts;
run;
```

This SAS code will create a file called `C:\randhrs\sasdata\formats.sas7bcat`.

---

[3]Starting with CAMS 2005 and onward, spouses of CAMS Respondents in a couple household were sent a separate time-use questionnaire (Part A in the full questionnaire).

1.3.1. Using (or Not Using) the SAS formats

To use formats from the SAS format library you must include a LIBNAME LIBRARY statement indicating the name of the directory where the `formats.sas7bcat` file is stored:

```
LIBNAME LIBRARY "c:\randhrs\sasdata";
```

If you do not have the LIBNAME LIBRARY statement in your program, SAS usually gives you an error message and stops processing, unless you specify NOFMTERR on an OPTIONS statement.

If you prefer not to use the assigned SAS formats, you can use the following statement in SAS PROC steps or just after a SET or MERGE in a data step to unassign all formats:

```
FORMAT _ALL_ ;
```

You can then assign formats as you wish. The format assignments we assigned to variables can be found by running a PROC CONTENTS on the data files.

1.4 Merging to the HRS

The RAND HRS CAMS Data File can easily be merged to the RAND HRS Longitudinal File and other RAND HRS data products using the HHIDPN variable. HHIDPN is the identification number of the CAMS survey Respondent. It is a numeric combination of the household identifier (HHID) and person identifier (PN) found on all HRS files that identify each Respondent uniquely. Please see the RAND HRS Longitudinal File Data Documentation for more information on HHIDPN.

The RAND HRS CAMS Data File is an individual-level file of all CAMS Respondents who have completed at least one wave of the CAMS Part B survey section.

To merge the RAND HRS CAMS Data File with other HRS data sources, one may use HHIDPN. For instance, to merge the RAND HRS CAMS Data File 2019 (V2) to the RAND HRS Longitudinal File 2020 (V1), one can use the following SAS code:

```
libname randhrs "[name of folder where the RAND HRS Longitudinal File is located]";
libname randcams "[name of folder where the RAND HRS Cams Data File is located]";
libname mylib "[name of folder to store your files]";


data mylib.newfile;
      merge randhrs.randhrs1992_2020v1 (keep=HHIDPN [list of other variables])
            randcams.randcams_2001_2019v1;
      by HHIDPN;
```

Alternatively, the analyst may want to merge the RAND CAMS spending data to the RAND HRS Longitudinal file at the household level using HwHHID by wave. There is typically only one CAMS spending section response per household, and merging by HwHHID would ensure the spending data is also merged to the spouse of the CAMS Respondent. For instance, to merge the Wave 5 RAND HRS CAMS Data File 2019 (V2) to the Wave 5 RAND HRS Longitudinal File 2020 (V1), one can use the following SAS code:

```
%include "[dir]\setuphrs.inc";
libname mylib "[name of folder to store your files]";


proc sort data=randhrs.randhrs1992_2020v1 (where=(inw5=1)) out=randhrs5;
      by H5HHID;
run;
proc sort data=randcams.randcams_2001_2019v1 (where=(incamsc5=1)) out=cams5;
```

```
        by H5HHID;
run;

data mylib.newfile5;
        merge randhrs5 (keep=H5HHID HHIDPN INW5 [list of other variables])
              cams5   ;
        by H5HHID;
```

Once all waves of interest are merged by HwHHID, they can be appended together to create a dataset where spending is attached to both Respondent and spouse records.

There are two issues that arise when merging by HwHHID. The first is that there are 7 households in 2011 and 3 households in 2017 with more than one CAMS spending Respondent. The analyst may want to choose one spending Respondent per couple to create a household measure. The second issue is that HwHHID is missing for CAMS Respondents that did not respond to the previous HRS core wave. In order to match all CAMS respondents to the HRS core survey, HwHHID may be imputed using adjacent wave values.

1.5 Sample Selection for Derived Totals

Beginning with version 2015 V1, the RAND HRS CAMS Data File aggregated spending and consumption variables are only derived for Respondents who have reported non-missing values for at least ten spending categories. The variable HwCNCAT indicates the number of non-missing values given by the Respondent for spending categories in Part B in a particular wave. The variable HwC10REP is a binary variable indicating whether the Respondent has given non-missing values for ten or more spending categories. Respondents with non-missing values for fewer than ten spending categories have a missing value of .T (".T=Resp <10 cat") for all spending and consumption totals.

1.6 Differences Across Waves

In 2001, Respondents were asked about spending in 26 categories of nondurables and 6 categories of durables. The categories were chosen to match published Consumer Expenditure Survey (CEX) aggregates, and cover all but a small percent of spending as reported in the CEX. The rate of item non-response was very low, averaging in the single digits across categories. CAMS 2003 added three categories (housekeeping services, yard services, and personal care), parsed three categories into more detailed components (e.g., home repairs and maintenance was split into services versus supplies), and changed the scope of one category (vehicle finance charges was expanded to include principal in addition to interest). In the 2005 survey spending on furnishings was added to the 2003 categories, and the categories have remained stable since then. Please see Table 1 for details on spending categories across CAMS surveys.

There are also differences in the choices of reporting periods offered across survey waves. The CAMS 2001 survey offered the choice of three reporting periods (last week, last month, last 12 months) for many spending categories. For spending categories that tend to be less frequent, this generated a sizable number of outliers. For example, spending on vehicle repairs reported for "last week" would result in a large number when multiplied by 52 to arrive at an annual estimate for a household. For this reason, starting in CAMS 2003, the "last week" option was removed for most categories and the "last month" option was removed for some less frequent spending categories. This change is likely to affect cross-wave comparability. Measures of changes in spending from 2001 to 2003 may not be reliable as a result.

Starting in CAMS 2005, the layout of the questionnaire was adjusted so that the recall period was printed in each entry field. Analyses of the 2001/2003 spending changes revealed that some Respondents apparently entered amounts referring to one recall period into the column referring to a different recall period (e.g. entering an amount spent "last month" into the column for amount spent "last week"). This layout change may have introduced cross-wave differences in reported spending between 2003 and 2005.

Table 1: Variable Names Across Waves

Category	CAMS01	CAMS03	CAMS05-CAMS19
Durables			
Refrigerator	B2	B2	B2
Washer/Dryer	B3	B3	B3
Dishwasher	B4	B4	B4
Television	B5	B5	B5
Computer	B6	B6	B6
Nondurables			
Electricity	B11	B15	B20
Water	B12	B16	B21
Heat	B13	B17	B22
Phone/Cable/Internet	B14	B18	B23
Health Insurance	B17	B11	B11
House/Yard Supplies	B18	split	split
Housekeeping Supplies	combined	B20	B25
Yard Supplies	combined	B22	B27
Housekeeping Services	n/a	B21	B26
Gardening/Yard Services	n/a	B23	B28
Food/Drink Grocery	B20	B36	B37
Dining Out	B21	B37	B38
Clothing	B22	B26	B29
Drugs	B25	B28	B31
Health Services	B26	B29	B32
Medical Supplies	B27	B30	B33
Vacations	B28	B12	B12
Tickets	B29	B31	B34
Hobbies/Sports Equipment	B30	split	split
Hobbies	combined	B33	B36
Sports Equipment	combined	B32	B35
Contributions	B31	B34	B16
Gifts	B32	B35	B17
Personal Care	n/a	B27	B30
Household Furnishings	n/a	n/a	B15
Transportation			
Purchase/Lease auto	B1	B1	B1
Auto Finance Charges	B15	n/a	n/a
Car Payments	n/a	B19	B24
Auto Insurance	B16	B9	B9
Gasoline	B23	B38	B39
Vehicle Services	B24	B10	B10
Housing			
Mortgage	B7	B13	B18
Home/Rent Insurance	B8	B7	B7
Property Tax	B9	B8	B8
Rent	B10	B14	B19
Home Repairs Supplies & Services	B19	split	split
Home Repair Supplies	combined	B24	B13
Home Repairs Services	combined	B25	B14

1.7 Spending versus Consumption

The CAMS questionnaire aims at eliciting household spending. However, in most economic models, individuals (or households) draw utility from consumption. Consumption is different from spending for items like consumer durables (e.g., automobile, television, computer etc.) and housing. The purchase occurs in one period, but the item provides utility for more than one period. To arrive at a measure of household consumption from the data elicited in CAMS involves two steps.

First, CAMS records two spending categories that contain components of saving: car payments and mortgage payments. In a mail survey it is difficult to ask separately about how these payments are split between interest and principal. Therefore, only total mortgage payments and total car payments were elicited.[4] To arrive at a pure spending measure we devised a way to remove the saving component (i.e., the reduction in principal) contained in the mortgage payment, but the analyst will need to correct for the principal amount contained in car payments. For the mortgage payments we approximated households' interest payments using data from the Consumer Expenditure Survey. See "1.8 Components of Household Spending and Consumption" for details.

For car payments we did not attempt such a correction in the absence of further information on households' financing arrangements. So the measures of total household spending in this CAMS public release file include our approximation of mortgage interest and the total of car payments.

To assist analysts who would like to use a different method for removing these saving components from the CAMS measures, we have included mortgage payments, mortgage interest, and car payments as separate variables. The analyst can use these (a) to subtract them from RAND HRS CAMS Data File total spending and (b) to use an alternative method to compute adjusted mortgage and car payments net of payment on principal to be added back into the measures of total spending.

Second, when the objective is to derive a measure of consumption from the CAMS spending data, one needs to estimate the per-period "usage" from consumer durables, automobiles and housing. We have implemented an approach to deriving measures of total household consumption that is similar to the one implemented in a paper by Michael D. Hurd and Susann Rohwedder (2006) on "Economic Well-Being at Older Ages: Income and Consumption-Based Poverty Measures in the HRS" (NBER Working Paper 12680). Specific derivations of these spending and consumption variables are described in the following section.

Preferred approaches for estimating the consumption value of these categories will differ across empirical applications and analysts. We highlight the need for this adjustment and provide one possible implementation, but encourage analysts to choose the most suitable approach in the context of their study. To assist researchers who prefer to implement a different method we have included as separate variables:

Mortgage payment
Mortgage interest
Car payments
Consumption of housing
Consumption of transportation
Spending on housing
Spending on transportation

1.8 Components of Household Spending and Consumption

Both the spending and consumption totals are divided into the following components: durables, nondurables, transportation and housing. The derivations of each of these components are described in this section.

---

[4]This is the amount that Respondents are most likely to know as a result of making these payments every month.

Durables spending
Durables spending is comprised of the purchase price of five big ticket items: dishwashers, refrigerators, washer/dryers, computers and televisions. It does not include automobile purchases, which is a component of transportation spending.

Durables consumption
For the big ticket items (excluding automobile purchases), our general strategy is to estimate, using CAMS data, the probability of a purchase and the expected value conditional on a purchase as functions of important covariates such as income, wealth, age, marital status and number of household members. We then impute an annual purchase amount which, in equilibrium, will be equal to the annual consumption.

We follow somewhat different methods for televisions and personal computers than for "white metal" items (refrigerators, washer/dryers and dishwashers). For televisions and computers we make the following assumptions and calculations. If p=probability of a purchase in a year, then $T = 1/p$ expected number of years of service use. Assuming that the flow of service is constant over the T years, the service flow per year is C/T where C = cost of the durable. Then the annual service flow is $C \times p$. We model $\ln(C)$ and p as functions of observables: income, wealth, age, marital status, number of household members, education, sex and whether working for pay. We estimate logistic functions for the probability of annual purchase and least-squares regression for spending conditional on purchase using the expenditure data. Then we impute the service flow to each household for televisions and computers separately.

For "white metal" consumption (refrigerators, washer/dryers and dishwashers), the probabilities and amounts are estimated as a white metal sum. First we estimate the probability for purchasing 0, 1, 2 or 3 white metal goods. Next we estimate the log sum of spending on the white metal items given the covariates and the number of white metal items purchased. White metal consumption is then calculated as the probability of purchasing one white metal item multiplied by spending on one white metal item plus the probability of purchasing two white metals multiplied by spending on two white metal items plus the probability of purchasing three white metals multiplied by spending on three white metals. The annual service flow for the five durables is then the sum of the service flows of televisions, computers and white metal items.

Nondurables spending (and consumption)
Nondurables spending is a component of both total spending and consumption. The spending categories vary by wave, but in general include: gifts, clothing, charitable contributions, dining out, medications and medical supplies, utilities, food and beverages, health insurance and services, telecommunications, tickets, trips and vacations, personal care items, furnishings, hobbies, sports, housekeeping services and supplies, and yard services and supplies. Please see Table 1 for details of which categories are available in each wave.

Transportation spending
Transportation spending is the sum of spending on new and used auto purchases, vehicle insurance, vehicle maintenance, car payments (or vehicle financing for CAMS 2001) and gasoline. The CAMS survey only measures purchase price of autos and not the outlay. Measuring the outlay is complicated due to the many financing options for vehicle purchases, including the possibility of trade-ins. Eliciting the details of the transactions is not practical in a paper-and-pencil survey. Analysts may want to consider adjustments, depending on the purpose of their analyses. For this reason, the total household auto spending measure is added to the dataset as a separate variable so analysts can subtract auto purchases from the RAND HRS CAMS Data File measures of total spending or total transportation spending, develop adjusted measures and add those back in to arrive at revised totals.

Transportation Consumption
Because the total value (rather than just purchases) of automobiles and other vehicles used for transportation is elicited in the HRS core surveys in the years preceding and following CAMS, we calculate the flow of services from the total values observed in the HRS core. This calculation will more accurately estimate the flow of services for households who purchase automobiles and the like less frequently. We make these assumptions and calculations: the value of transportation

(almost all automobiles) is measured in the HRS core; user cost is the sum of interest on the value, 10% depreciation, and observed insurance costs from CAMS. For the interest rate we use a three-year moving average on 48-month loan rates for automobiles published by the Federal Reserve.[5]

Housing Spending
Housing spending is comprised of rent, home and renters insurance, property tax, home maintenance supplies and services, and mortgage interest. To calculate mortgage interest from the CAMS survey report of total mortgage payment, it is necessary to eliminate the payment of principal. We approximated households' interest payments by calculating the following ratio using data from the Consumer Expenditure Survey in each survey year[6]

$$\frac{Mortgage\ interest\ and\ charges}{Mortgage\ interest\ and\ charges + Mortgage\ principal\ paid\ on\ owned\ property}$$

These interest proportions are then applied to the CAMS reports of "mortgage principal and interest" to approximate the interest payments, stratifying by the age of the CAMS Respondent for the following age groups: 25-34 years, 35-44 years, 45-54 years, 65-74 years and 75 years and older.

Housing Consumption
We estimate the flow of consumption services from owner-occupied housing by estimating a rental equivalent: the amount the housing unit would rent for in a competitive market in equilibrium. In particular we make the following two assumptions and calculations: (1) The interest cost is the value of housing multiplied by the prevailing interest rate. We use the observed house value from the HRS core and use a moving average of the last three years' 30 year mortgage interest rate.[7]: (2) We estimate a depreciation period of 47 years. The consumption of housing is the sum of the rental equivalent of the owned house, property tax, homeowners insurance, plus any actual rent the household pays for additional properties. For renters, housing consumption is identical to housing spending.

A discussion of the calculation of home value from the adjacent HRS core waves can be found in the data codebook section "2.16 Total Housing Consumption."

1.9 Variable Naming Conventions

Variable names in the RAND HRS CAMS Data File follow the same consistent pattern of the RAND HRS Longitudinal File. The first character indicates whether the variable refers to the reference person ("R"), spouse ("S"), or the household ("H"). In the case of RAND HRS CAMS, all variables refer to the household. The second character indicates the wave number to which the variable pertains, currently ranging from 1 to 14; in the case of time invariant variables the second character is "A". For RAND HRS CAMS data, the second character can be only "5" through "14" as there are only ten waves of data, beginning with CAMS 2001, which is linked to HRS 2000. The third character is "C" to indicate that it is part of the CAMS survey, though there will be RAND HRS Longitudinal File variables with a "C" in the third position as well. An "S" in the fourth position indicates that it is a spending variable and a "C" in the fourth position indicates that it is a consumption variable. For most variables, the rest of the name refers to the type of spending or consumption ("TOT" for total, "DUR" for durables, "NDUR" for nondurables, "TRANS" for transportation, and "HOUS" for housing). Please see "1.8 Components of Household Spending and Consumption" for a discussion of spending versus consumption measures. Finally, an additional suffix of "F" generally indicates an imputation flag associated with the variable.

1.10 Cross-Wave Category Adjustments

CAMS 2001 and 2003 have fewer spending categories than later waves (see Table 1). Estimates of total spending across waves are therefore not comparable. We have investigated in the later waves what fraction of total spending is attributable

---

[5]Source for 48-month new car loan interest rates: http://ww w.federalreserve.gov/releases/g19/HIST/cc_hist_tc_levels.html

[6]Source for mortgage interest and principal: http://www.bls.gov/cex/yyyy/Standard/age.pdf, where yyyy is the survey year 2001-2011. For 2013 and later the source can be found at https://www.bls.gov/cex/tables/calendar-year/mean-item-share-average-standard-error/reference-person-age-ranges-yyyy.pdf .

[7]Source for 30-year mortgage interest rate: http://www.freddiemac. com/pmms/docs/historicalweeklydata.xls

on average to those categories that were not asked in the earlier CAMS waves. These estimates could be used, at least at the population level, to adjust total spending in the first two waves to facilitate cross-wave comparisons. The RAND HRS CAMS Data File does not include these adjusted measures, but we describe a possible adjustment methodology in this section. These adjustments cannot fully compensate for the cross-wave differences because they miss the heterogeneity in the missing categories. For research purposes that are sensitive to changes in spending at the household level, researchers should consider limiting their analyses to CAMS Waves 2005 onward.

CAMS 2003 adjustment
CAMS 2005 can be used to adjust the earlier waves at the population-level. The percentage of the total CAMS 2005 spending that comes from the new categories is used as the adjustment factor. For CAMS 2003, the percentage of total spending from furnishings in 2005 is the adjustment factor (1.64%).

CAMS 2001 adjustment
CAMS 2001 households need two adjustment factors: one for the four missing categories in the wave, and another to make up for the fact that the vehicle finance charges do not include payments of principal, as in the later CAMS waves. For those without vehicle finance charges, the adjustment factor is the percentage of total spending from housekeeping services, yard services, personal care and furnishings in CAMS 2005 (4.76%). For those with vehicle finance charges, the vehicle finance charge is increased to account for the missing principal payments. To calculate the adjustment, the mean positive CAMS 2003 car payment is divided by the mean positive CAMS 2001 vehicle finance charges (334.62%). Once vehicle finance charges are increased by 334.62%, the total of all of the spending categories can be adjusted by the 4.76% to make up for the remaining four missing categories.

1.11 Cleaning and Imputation of Spending Variables

The RAND CAMS data contains a number of spending variables. We clean and annualize these spending variables and, where missing, we impute their values. In this section, we give an overview of the data cleaning and imputations methods.

Data Cleaning

Annualize all spending reports
Respondents are asked how much the household spent in each of about 40 categories.[8] Some amounts can be reported as weekly, monthly, or yearly spending. For frequent categories, such as gasoline and food, Respondents are given the option of reporting all three periodicities, while less frequent categories such as mortgage and utilities are only given monthly or yearly options. The periodicities varied from wave to wave in the first waves of CAMS, until they stabilized in wave 2005. To make amounts comparable across households and across waves, all reports are annualized.

Recode missing values
When a Respondent indicates that they spent no money on a category in the last 12 months, the missing amount is set to zero. Missing codes for "Answer not given" are recoded from 9999, 99999 , etc. to missing.

Identify outliers
Examination of the distribution of individual spending categories identified a small number (<10) of implausibly large values in several categories. Some of these may be due to Respondents inadvertently reporting an annual amount in the field for monthly amounts, or similar (see cleaning process above). It is difficult to derive an objective criterion to identify outliers. We settled for marking the highest five values for each spending category as likely outliers and winsorized these, that is, we set them equal to the sixth-highest values. Later in the imputation process these will be set to missing and imputed.

---

[8]The total number of categories queried varies across waves.

Imputations

Overview

We perform imputations of missing values for all spending categories. Overall, item non-response in CAMS is modest at less than 10 percent in each of the roughly 40 individual categories. The strongest predictor of what a household spent in a particular category is that household's spending on all other spending categories ("total household spending minus spending on [x]"). However, that spending total is affected by missing values until we have completed the imputation process. Therefore, we devised a 3-stage imputation procedure: we first perform a rough initial imputation for all missing spending values based on means for all categories except cars, which are median-imputed. This permits computation of the covariate "total household spending minus spending on [x]." Next, we use that covariate, along with other household characteristics, to perform a regression-based imputation to obtain a substantially richer imputation of the missing values that incorporates variation in spending by observable characteristics. We use these to recompute "total household spending minus spending on [x]." Finally, we repeat the regression-based imputation, but this time using the refined imputation of total spending as a covariate. For the vast majority of households, the specifics of the imputation method have only a small impact on their recorded spending total because of the low rates of item non-response: averaged across CAMS waves 1 through 10, over 90% of households had at most five missing spending values out of a total of about 40 categories, and 56% of all households had no missing spending values at all.

Initial steps

For durable categories, the Respondent is asked to indicate whether the household purchased the item in the past 12 months, and, to the best of their ability, provide the purchase price. The rate of non-response for whether the household purchased a durable item tends to be low, ranging between 0.84 percent for dishwashers and 1.05 percent for refrigerators in CAMS 2019, for example. If the Respondent does not indicate whether their household purchased a durable good, it is assumed that there was no purchase, and the purchase price is set to zero.

Stage 1: rough initial imputation to obtain preliminary measure of total household spending

For all spending categories except cars, we use mean imputations to fill any missing values in specific categories. The means are computed for each category including winsorized and zero values. With all missing values filled with an initial imputation, we sum spending across all categories for each household to construct a preliminary measure of total household spending, to be used as covariate in the regression-based imputations.

Stage 2: first round regression-based imputation to refine initial imputation

The regression-based imputations involve (i) a logit model to estimate the probability that a household spent anything on category [x]; and (ii) conditional on positive spending in category [x], an OLS regression of the amount spent on category [x]. Survey waves are pooled to increase the sample size, which matters particularly for spending categories on which few households spend any money in a particular year, such as refrigerators.[9]

The logit model is skipped for some categories:

– For durable goods Respondents indicate explicitly whether they made any purchases. These variables have very few missing values and are imputed by assuming "no money spent."

– For non-durable spending categories where more than 90% of households spent a positive amount. We found that the logit model for any spending was not robust for some categories with only a few 0s. For these categories, we only estimate the amount regression, expanding the sample to include households who reported zero spending. For singles, these categories include food and beverages, telecommunication, personal care, and house-keeping supplies. Couples have the same high-frequency categories, with the additions of clothing, dining out, drugs, electricity, car insurance, and gas.

---

[9]For the first 10 waves, we pooled all 10 waves to perform the imputations. In future versions, we will pool waves 2-11 for imputations for wave 11, and waves 3-12 for imputations for wave 12, and so on.

The sample for this first round of regression-based imputations includes those observations who reported their spending amount on category [x] and who have low item-nonresponse overall (5 or fewer missing values out of about 40 categories). The predicted probability of positive spending obtained from the logit regression is compared to a randomly drawn number (uniform distribution between 0 and 1) to determine whether a purchase occurred. The regression model for the amount spent on category [x] is estimated over those observations with a positive spending amount in that category. All regressions are conducted on single and coupled samples separately.

The logit model and the amount regression are estimated using the same set of covariates, including: Respondent age, education level, race, self-rated health, whether working for pay, number of ADLs, number of residents in the household, whether owns a car and/or home, urban or suburban/rural community, log income, wealth quartile, survey year, and the log of the amount of total spending excluding the category amount. Regressions for the coupled sample include spouse covariates in addition to the Respondent covariates.

Stage 3: second round regression-based imputation to obtain the final set of imputations
After the first round of regression-based imputations are completed, the spending totals are re-calculated replacing the initial mean (median) imputations for missing values with the regression-imputed amounts. A second round of imputations is then produced using the refined imputations. In the second round, the estimation sample is expanded to observations with up to 10 missing spending category amounts (as opposed to only five category amounts in round 1).

Across all waves, 83% of the sample need two or fewer missing spending values imputed. 56.4% require no imputation. On average, 5.76% of total spending is imputed. For those who reported fewer than 10 spending categories we did not perform any imputations as the majority of their spending would be imputed. We set their total spending to the missing value of ".T=Resp <10 cat." Each aggregated and category-level spending variable has a flag indicating for each Respondent if any of its components were imputed.

1.12 Imputation of Auto Purchases

A Respondent can report up to three auto purchases per survey. If the Respondent does not indicate whether their household purchased an automobile, it is assumed that there was no auto purchase and the auto amounts are set to zero.

Auto values are subject to winsorization and imputation similar to other categories, but with a few notable differences. First, autos are divided into used and new car purchases. Imputation differs for the two categories, but both involve using the median instead of the mean, and the imputation happens prior to winsorization.

For CAMS 2001, an auto is considered new if the model year is 2000, 2001 or 2002. In later CAMS waves there is an indicator for whether the car is new or not. In these waves, a car is considered new if the indicator flag equals yes and the model year is the survey year plus or minus one year (2002-2004 for CAMS 2003 autos for example). If the model year is missing, the car is considered used.

For used cars, the median imputation is performed separately for the first, second, and third car purchase as the order of reporting impacts the median values. For new cars, all three auto values are pooled together regardless of the order in which they were reported. The median is calculated from the pooled sample and the missing values are imputed. Second, because ownership information is available, the median of only the positive auto amounts is used for the auto value imputation. After imputation, the three auto values are summed and subject to winsorization.

The conditional regression imputation is then produced in the same manner as for durables discussed in the previous section with two differences. First, the regression is conducted at the individual car-level rather than the individual Respondent-level. Second, additional covariates are added which flag new car purchases and whether the car purchase was reported first, second or third in the survey response.

1.13 Imputation of Consumption Variables

Total consumption is the sum of the consumption of durables, nondurables, housing and transportation. Nondurables consumption is the same as nondurables spending, which is composed of categories that are subjected to mean imputation if a response is missing. Housing and transportation consumption require a response to an adjacent HRS core survey; otherwise, there will be no asset value reported for home or transportation (see "1.8 Components of Household Spending and Consumption"). Likewise, the calculation of durables consumption also requires an adjacent HRS survey response due to the covariates used to predict the probability of purchase in a particular wave (work status, number of household members, etc.). Therefore, additional imputations, beyond the mean imputations implemented for spending, are necessary for the consumption total and subtotals.

The method for imputation of these consumption values is to calculate the portion of total consumption that is derived from each component. These percentages are calculated using the sample of observations not requiring any imputation, called the sample of "complete" reporters, and are stratified by age and marital status. Furthermore, we also calculate separate percentages for homeowners (who may also be renters) and renters who are not homeowners.

The consumption imputations can be divided into four types:

Type 1: Homeowners who have no asset reported in the HRS
Imputation is necessary for homeowners that report having a mortgage in CAMS but only responded to one adjacent HRS wave and their home value was reported as zero. We interpret the situation of this group to be those transitioning in or out of home ownership between HRS core surveys, but who owned a home at the time of the CAMS survey and thus require a positive value for home consumption. We calculate the percentage of total consumption derived from the rent equivalent for the sample of homeowners who are complete reporters. This percentage is used to impute a value for housing consumption.

Type 2: Homeowners without an adjacent HRS wave
For those homeowners without any adjacent HRS waves, imputations are necessary not only for housing consumption but also for durables and transportation consumption. We calculate the share of consumption derived from housing, durables and transportation consumption for our sample of homeowners who are complete reporters. These percentages are used to impute the missing component values.

Type 3: Renters without an adjacent HRS wave
For those renters without any adjacent HRS waves, imputations are necessary for durables and transportation consumption. Housing is not missing because it is equivalent to housing spending, which is subject to mean imputation at the category level. We calculate the share of consumption derived from durables and transportation consumption for the sample of renters who are complete reporters. These percentages are used to impute the missing component values.

Type 4: Respondents without rent or indication of home ownership
A small percentage of observations report no rent or mortgage in the CAMS survey, in addition to having zero home value in the adjacent HRS waves. For these Respondents, we assume that another party is covering their housing spending, but they still remain consumers of housing services. We calculate the share of consumption derived from housing for the sample of complete reporters (including both homeowners and renters). These percentages are used to impute the missing value of housing consumption.

2. Data Codebook

2.1 Respondent Identifier and Merging Instructions

```
Wave   Variable            Label                                                     Type
  1    HHIDPN              HHIDPN: HHold ID + Person Number /Num                     Cont
```

Descriptive Statistics

```
Variable              N       Mean     Std Dev    Minimum      Maximum

HHIDPN             8116 295905251.9 264976408.1  10001010.0 923525020.0
```

How Constructed

HHIDPN is the identification number of the CAMS survey Respondent. It is the numeric version of the person identifier found on all HRS files that identifies each Respondent uniquely. Please see the RAND HRS Longitudinal File Data Documentation for more information on HHIDPN and "Appendix Section A: ID adjustments" in this document for a list of HHIDPN changes.

To merge the RAND HRS CAMS Data File with other HRS data sources, one may use HHIDPN. For instance, to merge the RAND HRS CAMS Data File to the RAND HRS Longitudinal File 2020 (V1), you could use the following SAS code:

```
%include "[dir]\setuphrs.inc";
libname mylib "[name of folder to store your files]";

data mylib.newfile;
      merge randhrs.randhrs1992_2020v1 (keep=HHIDPN [list of other variables])
            randcams.randcams_2001_2019v1;
      by HHIDPN;
```

Please see "2.2 Household Identifier" for an alternative household-level merge.

2.2 Household Identifier

Wave	Variable	Label	Type
1	H1HHID	H1HHID:W1 HHold ID + SubHHold /Num	Cont
2	H2HHID	H2HHID:W2 HHold ID + SubHHold /Num	Cont
3	H3HHID	H3HHID:W3 HHold ID + SubHHold /Num	Cont
4	H4HHID	H4HHID:W4 HHold ID + SubHHold /Num	Cont
5	H5HHID	H5HHID:W5 HHold ID + SubHHold /Num	Cont
6	H6HHID	H6HHID:W6 HHold ID + SubHHold /Num	Cont
7	H7HHID	H7HHID:W7 HHold ID + SubHHold /Num	Cont
8	H8HHID	H8HHID:W8 HHold ID + SubHHold /Num	Cont
9	H9HHID	H9HHID:W9 HHold ID + SubHHold /Num	Cont
10	H10HHID	H10HHID:W10 HHold ID + SubHHold /Num	Cont
11	H11HHID	H11HHID:W11 HHold ID + SubHHold /Num	Cont
12	H12HHID	H12HHID:W12 HHold ID + SubHHold /Num	Cont
13	H13HHID	H13HHID:W13 HHold ID + SubHHold /Num	Cont
14	H14HHID	H14HHID:W14 HHold ID + SubHHold /Num	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H1HHID	2620	492011.38	278566.31	100010.0	2088670.0
H2HHID	3572	934638.27	737899.60	100010.0	2088910.0
H3HHID	3588	926039.88	733910.71	100010.0	2088910.0
H4HHID	4863	1134517.85	754968.49	100010.0	2134790.0
H5HHID	5009	1126781.85	754071.52	100010.0	2134790.0
H6HHID	4804	1123566.45	753252.12	100010.0	2134790.0
H7HHID	5351	1686518.86	1559582.97	100010.0	5027570.0
H8HHID	5052	1672342.41	1567053.24	100010.0	5027550.0
H9HHID	4725	1672185.39	1596164.20	100010.0	5027570.0
H10HHID	5850	3017578.08	2850411.94	100010.0	9235250.0
H11HHID	5527	3065160.59	2875551.56	100010.0	9235250.0
H12HHID	5116	3136209.82	2910351.89	100010.0	9235250.0
H13HHID	5215	3537782.29	2857802.01	100010.0	9235250.0
H14HHID	4371	3662445.74	2857675.72	100040.0	9235250.0

How Constructed

The HwHHID identifiers combine HHID with a sub-household ID for each wave. They uniquely identify a household in a given wave. Households that split are given different subHH IDs by HRS. HwHHID is numeric (HHID*10+subHH).

Because there should be only one CAMS spending section response per household, the analyst may want to merge the RAND CAMS spending data to the RAND HRS Longitudinal file at the household level using HwHHID by wave. This would ensure the spending data is also merged to the spouse of the CAMS Respondent. For instance, to merge the Wave 5 RAND HRS CAMS Data File 2019 (V2) to the Wave 5 RAND HRS Longitudinal File 2020 (V1), one can use the following SAS code:

```
%include "[dir]\setuphrs.inc";
libname mylib "[name of folder to store your files]";

proc sort data=randhrs.randhrs1992_2020v1 (where=(inw5=1)) out=randhrs5;
```

```
        by H5HHID;
run;
proc sort data=randcams.randcams_2001_2019v1 (where=(incamsc5=1)) out=cams5;
        by H5HHID;
run;

data mylib.newfile5;
        merge randhrs5 (keep=H5HHID HHIDPN INW5 [list of other variables])
                cams5   ;
        by H5HHID;
```

Once all waves of interest are merged by HwHHID, they can be appended together to create a dataset where spending is attached to both Respondent and spouse records. Please see "2.1 Respondent Identifier" for an alternative respondent-level merge.

There are two issues that arise when merging by HwHHID. The first is that there are 7 households in 2011 and 3 households in 2017 with more than one CAMS spending Respondent. The analyst may want to choose one spending Respondent per couple to create a household measure. The second issue is that HwHHID is missing for CAMS Respondents that did not respond to the previous HRS core wave. In order to match all CAMS respondents to the HRS core survey, HwHHID may be imputed using adjacent wave values.

2.3 Response Indicators

```
Wave   Variable            Label                                                      Type

  1    INCAMS01            INCAMS01: =1 if responded to CAMS 2001                     Categ
  3    INCAMS03            INCAMS03: =1 if responded to CAMS 2003                     Categ
  5    INCAMS05            INCAMS05: =1 if responded to CAMS 2005                     Categ
  7    INCAMS07            INCAMS07: =1 if responded to CAMS 2007                     Categ
  9    INCAMS09            INCAMS09: =1 if responded to CAMS 2009                     Categ
 11    INCAMS11            INCAMS11: =1 if responded to CAMS 2011                     Categ
 13    INCAMS13            INCAMS13: =1 if responded to CAMS 2013                     Categ
 15    INCAMS15            INCAMS15: =1 if responded to CAMS 2015                     Categ
 17    INCAMS17            INCAMS17: =1 if responded to CAMS 2017                     Categ
 19    INCAMS19            INCAMS19: =1 if responded to CAMS 2019                     Categ

  5    INCAMSC5            INCAMSC5:In CAMS wave 5, as lined up with the HRS          Categ
  6    INCAMSC6            INCAMSC6:In CAMS wave 6, as lined up with the HRS          Categ
  7    INCAMSC7            INCAMSC7:In CAMS wave 7, as lined up with the HRS          Categ
  8    INCAMSC8            INCAMSC8:In CAMS wave 8, as lined up with the HRS          Categ
  9    INCAMSC9            INCAMSC9:In CAMS wave 9, as lined up with the HRS          Categ
 10    INCAMSC10           INCAMSC10:In CAMS wave 10, as lined up with the HRS        Categ
 11    INCAMSC11           INCAMSC11:In CAMS wave 11, as lined up with the HRS        Categ
 12    INCAMSC12           INCAMSC12:In CAMS wave 12, as lined up with the HRS        Categ
 13    INCAMSC13           INCAMSC13:In CAMS wave 13, as lined up with the HRS        Categ
 14    INCAMSC14           INCAMSC14:In CAMS wave 14, as lined up with the HRS        Categ
```

Descriptive Statistics

```
Variable              N       Mean     Std Dev    Minimum    Maximum

INCAMS01            8116      0.48       0.50       0.0        1.0
INCAMS03            8116      0.40       0.49       0.0        1.0
INCAMS05            8116      0.48       0.50       0.0        1.0
INCAMS07            8116      0.46       0.50       0.0        1.0
INCAMS09            8116      0.44       0.50       0.0        1.0
INCAMS11            8116      0.54       0.50       0.0        1.0
INCAMS13            8116      0.50       0.50       0.0        1.0
INCAMS15            8116      0.46       0.50       0.0        1.0
INCAMS17            8116      0.43       0.50       0.0        1.0
INCAMS19            8116      0.41       0.49       0.0        1.0

INCAMSC5            8116      0.48       0.50       0.0        1.0
INCAMSC6            8116      0.40       0.49       0.0        1.0
INCAMSC7            8116      0.48       0.50       0.0        1.0
INCAMSC8            8116      0.46       0.50       0.0        1.0
INCAMSC9            8116      0.44       0.50       0.0        1.0
INCAMSC10           8116      0.54       0.50       0.0        1.0
INCAMSC11           8116      0.50       0.50       0.0        1.0
INCAMSC12           8116      0.46       0.50       0.0        1.0
INCAMSC13           8116      0.43       0.50       0.0        1.0
INCAMSC14           8116      0.41       0.49       0.0        1.0
```

Categorical Variable Codes

```
_____
Value                    |   INCAMS01   INCAMS03   INCAMS05   INCAMS07   INCAMS09   INCAMS11   INCAMS13
----------------------------------------------------------------------------------
0.nonresp                |       4250       4862       4237       4378       4529       3746       4049
1.resp                   |       3866       3254       3879       3738       3587       4370       4067

Value                    |   INCAMS15   INCAMS17   INCAMS19
------------------------------------------------------------
0.nonresp                |       4379       4610       4793
1.resp                   |       3737       3506       3323


_____
Value                    |   INCAMSC5   INCAMSC6   INCAMSC7   INCAMSC8   INCAMSC9  INCAMSC10  INCAMSC11
----------------------------------------------------------------------------------
0.nonresp                |       4250       4862       4237       4378       4529       3746       4049
1.resp                   |       3866       3254       3879       3738       3587       4370       4067

Value                    |  INCAMSC12  INCAMSC13  INCAMSC14
------------------------------------------------------------
0.nonresp                |       4379       4610       4793
1.resp                   |       3737       3506       3323
```

How Constructed

The INCAMS variables indicate whether an individual responded to Part B of the CAMS Survey in a particular year. Respondents have the opportunity to respond to multiple CAMS surveys, and all survey results are added to the individual's record.

2.4 Sample Indicators

```
Wave   Variable           Label                                                              Type

   5   H5CNCAT            H5CNCAT:W5 CAMS Number of non-missing spending categories          Cont
   6   H6CNCAT            H6CNCAT:W6 CAMS Number of non-missing spending categories          Cont
   7   H7CNCAT            H7CNCAT:W7 CAMS Number of non-missing spending categories          Cont
   8   H8CNCAT            H8CNCAT:W8 CAMS Number of non-missing spending categories          Cont
   9   H9CNCAT            H9CNCAT:W9 CAMS Number of non-missing spending categories          Cont
  10   H10CNCAT           H10CNCAT:W10 CAMS Number of non-missing spending categories        Cont
  11   H11CNCAT           H11CNCAT:W11 CAMS Number of non-missing spending categories        Cont
  12   H12CNCAT           H12CNCAT:W12 CAMS Number of non-missing spending categories        Cont
  13   H13CNCAT           H13CNCAT:W13 CAMS Number of non-missing spending categories        Cont
  14   H14CNCAT           H14CNCAT:W14 CAMS Number of non-missing spending categories        Cont

   5   H5C10REP           H5C10REP:W5 CAMSFlag: Responded to 10+ spending section questions   Categ
   6   H6C10REP           H6C10REP:W6 CAMSFlag: Responded to 10+ spending section questions   Categ
   7   H7C10REP           H7C10REP:W7 CAMSFlag: Responded to 10+ spending section questions   Categ
   8   H8C10REP           H8C10REP:W8 CAMSFlag: Responded to 10+ spending section questions   Categ
   9   H9C10REP           H9C10REP:W9 CAMSFlag: Responded to 10+ spending section questions   Categ
  10   H10C10REP          H10C10REP:W10 CAMSFlag: Responded to 10+ spending section questions Categ
  11   H11C10REP          H11C10REP:W11 CAMSFlag: Responded to 10+ spending section questions Categ
  12   H12C10REP          H12C10REP:W12 CAMSFlag: Responded to 10+ spending section questions Categ
  13   H13C10REP          H13C10REP:W13 CAMSFlag: Responded to 10+ spending section questions Categ
  14   H14C10REP          H14C10REP:W14 CAMSFlag: Responded to 10+ spending section questions Categ
```

Descriptive Statistics

```
Variable              N        Mean      Std Dev     Minimum     Maximum

H5CNCAT             3866      29.82       4.85          0.0        32.0
H6CNCAT             3254      35.96       4.84          0.0        38.0
H7CNCAT             3879      36.80       5.25          0.0        39.0
H8CNCAT             3738      37.07       4.82          0.0        39.0
H9CNCAT             3587      37.28       4.70          0.0        39.0
H10CNCAT            4370      37.17       4.94          0.0        39.0
H11CNCAT            4067      36.93       5.29          0.0        39.0
H12CNCAT            3737      37.28       4.95          0.0        39.0
H13CNCAT            3506      37.15       5.36          0.0        39.0
H14CNCAT            3323      37.00       5.65          0.0        39.0

H5C10REP            3866       0.98       0.14          0.0         1.0
H6C10REP            3254       0.99       0.10          0.0         1.0
H7C10REP            3879       0.99       0.11          0.0         1.0
H8C10REP            3738       0.99       0.09          0.0         1.0
H9C10REP            3587       0.99       0.10          0.0         1.0
H10C10REP           4370       0.99       0.11          0.0         1.0
H11C10REP           4067       0.99       0.11          0.0         1.0
H12C10REP           3737       0.99       0.11          0.0         1.0
H13C10REP           3506       0.99       0.12          0.0         1.0
H14C10REP           3323       0.98       0.13          0.0         1.0
```

Categorical Variable Codes

```
                       HwC10REP: CAMSFlag: Responded to 10+ spending section questions

Value                      |     w1      w2      w3      w4      w5      w6      w7      w8      w9     w10
0. Resp to <10 spending Qs |                                     77      30      47      34      37      51
1. Resp to 10+ spending Qs |                                   3789    3224    3832    3704    3550    4319

Value                      |    w11     w12     w13     w14
0. Resp to <10 spending Qs |     50      48      52      59
1. Resp to 10+ spending Qs |   4017    3689    3454    3264
```

How Constructed

Beginning with version 2015 V1, the RAND HRS CAMS Data File totals are now only derived for those observations who have given non-missing values for at least ten spending categories. The variable HwCNCAT indicates the number of non-missing values given by the Respondent for spending categories in Part B in a particular wave. The variable HwC10REP is a binary variable indicating whether the Respondent has given non-missing values for ten or more spending categories. Those Respondents who gave non-missing values for less than ten spending categories have a missing value of .T (".T=Resp <10 cat) for all spending and consumption aggregated totals but retain reported values for their category-level spending.

2.5 HRS Core Status

Wave	Variable	Label	Type
5	H5CHRSCOREF	H5CHRSCOREF:W5 CAMSFlag: HRS Core Status	Categ
6	H6CHRSCOREF	H6CHRSCOREF:W6 CAMSFlag: HRS Core Status	Categ
7	H7CHRSCOREF	H7CHRSCOREF:W7 CAMSFlag: HRS Core Status	Categ
8	H8CHRSCOREF	H8CHRSCOREF:W8 CAMSFlag: HRS Core Status	Categ
9	H9CHRSCOREF	H9CHRSCOREF:W9 CAMSFlag: HRS Core Status	Categ
10	H10CHRSCOREF	H10CHRSCOREF:W10 CAMSFlag: HRS Core Status	Categ
11	H11CHRSCOREF	H11CHRSCOREF:W11 CAMSFlag: HRS Core Status	Categ
12	H12CHRSCOREF	H12CHRSCOREF:W12 CAMSFlag: HRS Core Status	Categ
13	H13CHRSCOREF	H13CHRSCOREF:W13 CAMSFlag: HRS Core Status	Categ
14	H14CHRSCOREF	H14CHRSCOREF:W14 CAMSFlag: HRS Core Status	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CHRSCOREF	3866	2.91	0.40	1.0	3.0
H6CHRSCOREF	3254	2.93	0.36	1.0	3.0
H7CHRSCOREF	3879	2.88	0.48	0.0	3.0
H8CHRSCOREF	3738	2.87	0.51	0.0	3.0
H9CHRSCOREF	3587	2.85	0.55	0.0	3.0
H10CHRSCOREF	4370	2.89	0.46	0.0	3.0
H11CHRSCOREF	4067	2.88	0.48	0.0	3.0
H12CHRSCOREF	3737	2.84	0.56	0.0	3.0
H13CHRSCOREF	3506	2.78	0.64	0.0	3.0
H14CHRSCOREF	3323	2.73	0.72	0.0	3.0

Categorical Variable Codes

HwCHRSCOREF: CAMSFlag: HRS Core Status

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
0. No adjacent HRS wv								31	43	39	32
1. In prev HRS wv only						165	108	154	148	190	166
2. In foll HRS wv only								48	45	38	34
3. In prev/foll HRS wv						3701	3146	3646	3502	3320	4138

Value		w11	w12	w13	w14
0. No adjacent HRS wv		23	29	36	102
1. In prev HRS wv only		187	240	319	227
2. In foll HRS wv only		32	28	15	132
3. In prev/foll HRS wv		3825	3440	3136	2862

How Constructed

These variables indicate which adjacent HRS core surveys were responded to by the CAMS Respondents. They are created using the HRS Core Survey response indicator flag INW.

The adjacent core HRS surveys are used in the calculation of CAMS household consumption. Without the data for an adjacent HRS survey, these variables must be imputed. Please see "1.13 Imputation of Consumption Variables" for more information.

RAND HRS Longitudinal File 2020 (V1) Variables Used

```
INW5       INW5: =1 if Respondent W5
INW6       INW6: =1 if Respondent W6
INW7       INW7: =1 if Respondent W7
INW8       INW8: =1 if Respondent W8
INW9       INW9: =1 if Respondent W9
INW10      INW10: =1 if Respondent W10
INW11      INW11: =1 if Respondent W11
INW12      INW12: =1 if Respondent W12
INW13      INW13: =1 if Respondent W13
INW14      INW14: =1 if Respondent W14
```

2.6 Analysis Weights

Wave	Variable	Label	Type
5	H5CWGTHH	H5CWGTHH:W5 CAMS Household Analysis Weight	Cont
6	H6CWGTHH	H6CWGTHH:W6 CAMS Household Analysis Weight	Cont
7	H7CWGTHH	H7CWGTHH:W7 CAMS Household Analysis Weight	Cont
8	H8CWGTHH	H8CWGTHH:W8 CAMS Household Analysis Weight	Cont
9	H9CWGTHH	H9CWGTHH:W9 CAMS Household Analysis Weight	Cont
10	H10CWGTHH	H10CWGTHH:W10 CAMS Household Analysis Weight	Cont
11	H11CWGTHH	H11CWGTHH:W11 CAMS Household Analysis Weight	Cont
12	H12CWGTHH	H12CWGTHH:W12 CAMS Household Analysis Weight	Cont
13	H13CWGTHH	H13CWGTHH:W13 CAMS Household Analysis Weight	Cont
14	H14CWGTHH	H14CWGTHH:W14 CAMS Household Analysis Weight	Cont
5	H5CWGTR	H5CWGTR:W5 CAMS Respondent Analysis Weight	Cont
6	H6CWGTR	H6CWGTR:W6 CAMS Respondent Analysis Weight	Cont
7	H7CWGTR	H7CWGTR:W7 CAMS Respondent Analysis Weight	Cont
8	H8CWGTR	H8CWGTR:W8 CAMS Respondent Analysis Weight	Cont
9	H9CWGTR	H9CWGTR:W9 CAMS Respondent Analysis Weight	Cont
10	H10CWGTR	H10CWGTR:W10 CAMS Respondent Analysis Weight	Cont
11	H11CWGTR	H11CWGTR:W11 CAMS Respondent Analysis Weight	Cont
12	H12CWGTR	H12CWGTR:W12 CAMS Respondent Analysis Weight	Cont
13	H13CWGTR	H13CWGTR:W13 CAMS Respondent Analysis Weight	Cont
14	H14CWGTR	H14CWGTR:W14 CAMS Respondent Analysis Weight	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CWGTHH	3866	11456.03	5969.08	0.0	42366.0
H6CWGTHH	3254	13216.75	7386.34	0.0	55578.0
H7CWGTHH	3879	13478.52	8013.48	0.0	49161.0
H8CWGTHH	3738	13411.27	8051.82	0.0	52185.0
H9CWGTHH	3587	13361.10	8056.81	0.0	53117.0
H10CWGTHH	4365	14196.53	10000.06	0.0	48654.0
H11CWGTHH	4067	14647.30	10473.79	0.0	59632.0
H12CWGTHH	3737	15260.55	11132.92	0.0	52493.0
H13CWGTHH	3506	19667.51	16188.09	0.0	89643.0
H14CWGTHH	3334	20054.58	15641.49	0.0	69598.0
H5CWGTR	3866	16654.57	10611.26	0.0	70465.0
H6CWGTR	3254	19068.42	12245.26	0.0	79927.0
H7CWGTR	3879	13955.16	8966.90	0.0	40296.0
H8CWGTR	3738	13928.38	9099.98	0.0	42042.0
H9CWGTR	3587	13873.01	8971.16	0.0	41708.0
H10CWGTR	4365	14677.67	10949.16	0.0	49477.0
H11CWGTR	4067	15249.04	11423.81	0.0	53603.0
H12CWGTR	3737	15978.45	12242.01	0.0	60088.0
H13CWGTR	3506	21762.95	18499.47	0.0	106193.0
H14CWGTR	3323	22216.43	17498.56	0.0	82961.0

General Comments

Updates to demographic information in the Tracker file will happen occasionally, and this can impact the weights generation. Currently, such updates are affecting a few dozen Respondents and households across CAMS 2001, 2003 and 2011; updated household and respondent-level weights will be available in a future release of the RAND HRS CAMS Data File.

How Constructed

There are two sample weights for each wave of CAMS, a household-level weight and a respondent-level weight. These weights are non-missing if the observation responded to the spending section of the CAMS survey (Part B) in a particular year. The household weight should be used for analyses of items that are measured at the household level in the survey, namely questions about household spending. In every wave of CAMS, the household questions are asked of only one Respondent in coupled households; this person is designated as the primary CAMS Respondent and the assignment was retained across waves as long as the couple remained intact. The respondent weight should be used for analyses of respondent level items available from the core data.

The CAMS household weight is the product of the prior core wave household weight and a non-response adjustment factor. The non-response adjustment factor was obtained from a propensity model predicting the probability of completing the CAMS questionnaire among those selected and eligible to participate. The propensity model was estimated by logistic regression and weighted by the prior wave core household weight. Predictor variables included age (of oldest spouse, if coupled), education (of highest educated spouse, if coupled), race, ethnicity, coupleness, self-rated health, cognition, difficulty managing money, total assets, total income, home ownership, and ownership of a second residence. All of these measures were taken from the prior core wave or, if missing, the closest non-missing prior core wave. The inverse of the fitted probability of CAMS completion formed the non-response adjustment factor. As a final step, the weights were post-stratified to match the prior wave core weighted household sample size and composition by age, gender, and coupleness status.

The CAMS respondent weight followed a similar procedure as the household weight. It is the product of the prior core wave respondent weight and a non-response adjustment factor. The same propensity model was used to obtain the non-respondent adjustment factor, based on individual level characteristics (e.g., own age and own education) and weighted by the prior wave core respondent weight. As a last step, the CAMS Respondent weight was post-stratified to match the prior wave core weighted respondent sample size and composition by age, gender, and coupleness status.

Eight Respondents to CAMS Part B did not respond to any HRS core survey. For these observations, we use the spouse's HHIDPN so that these records can be merged to the HRS files (see "Appendix Section A: ID adjustments" for a list of HHIDPN adjustments). Because their spouses did not respond to the full CAMS survey, the respondent-level weight assigned to them is zero. Therefore, for these cases, respondent-level weights are imputed with the household-level weight.

CAMS Variables Used

```
CAMS 2001:
    CAMS01WGTHH     HOUSEHOLD WEIGHT FOR THE 2001 CAMS SUBSAMPLE
    CAMS01WGTR      RESPONDENT WEIGHT FOR THE 2001 CAMS SUBSAMPLE
CAMS 2003:
    CAMS03WGTHH     HOUSEHOLD WEIGHT FOR THE 2003 CAMS SUBSAMPLE
    CAMS03WGTR      RESPONDENT WEIGHT FOR THE 2003 CAMS SUBSAMPLE
CAMS 2005:
    CAMS05WGTHH     HOUSEHOLD WEIGHT FOR THE 2005 CAMS SUBSAMPLE
    CAMS05WGTR      RESPONDENT WEIGHT FOR THE 2005 CAMS SUBSAMPLE
CAMS 2007:
```

```
    CAMS07WGTHH      HOUSEHOLD WEIGHT FOR THE 2007 CAMS SUBSAMPLE
    CAMS07WGTR       RESPONDENT WEIGHT FOR THE 2007 CAMS SUBSAMPLE
CAMS 2009:
    CAMS09WGTHH      HOUSEHOLD WEIGHT FOR THE 2009 CAMS SUBSAMPLE
    CAMS09WGTR       RESPONDENT WEIGHT FOR THE 2009 CAMS SUBSAMPLE
CAMS 2011:
    CAMS11WGTHH      HOUSEHOLD WEIGHT FOR THE 2011 CAMS SUBSAMPLE
    CAMS11WGTR       RESPONDENT WEIGHT FOR THE 2011 CAMS SUBSAMPLE
CAMS 2013:
    CAMS13WGTHH      HOUSEHOLD WEIGHT FOR THE 2013 CAMS SUBSAMPLE
    CAMS13WGTR       RESPONDENT WEIGHT FOR THE 2013 CAMS SUBSAMPLE
CAMS 2015:
    CAMS15WGTHH      HOUSEHOLD WEIGHT FOR THE 2015 CAMS SUBSAMPLE
    CAMS15WGTR       RESPONDENT WEIGHT FOR THE 2015 CAMS SUBSAMPLE
CAMS 2017:
    CAMS17WGTHH      HOUSEHOLD WEIGHT FOR THE 2017 CAMS SUBSAMPLE
    CAMS17WGTR       RESPONDENT WEIGHT FOR THE 2017 CAMS SUBSAMPLE
CAMS 2019:
    CAMS19WGTHH      HOUSEHOLD WEIGHT FOR THE 2019 CAMS SUBSAMPLE
    CAMS19WGTR       RESPONDENT WEIGHT FOR THE 2019 CAMS SUBSAMPLE
```

2.7 CAMS Current Marital Status

Wave	Variable	Label	Type
5	H5CMSTAT	H5CMSTAT:W5 CAMS Current Marital Status	Categ
6	H6CMSTAT	H6CMSTAT:W6 CAMS Current Marital Status	Categ
7	H7CMSTAT	H7CMSTAT:W7 CAMS Current Marital Status	Categ
8	H8CMSTAT	H8CMSTAT:W8 CAMS Current Marital Status	Categ
9	H9CMSTAT	H9CMSTAT:W9 CAMS Current Marital Status	Categ
10	H10CMSTAT	H10CMSTAT:W10 CAMS Current Marital Status	Categ
11	H11CMSTAT	H11CMSTAT:W11 CAMS Current Marital Status	Categ
12	H12CMSTAT	H12CMSTAT:W12 CAMS Current Marital Status	Categ
13	H13CMSTAT	H13CMSTAT:W13 CAMS Current Marital Status	Categ
14	H14CMSTAT	H14CMSTAT:W14 CAMS Current Marital Status	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CMSTAT	3789	2.74	1.90	1.0	7.0
H6CMSTAT	3194	2.66	1.89	1.0	7.0
H7CMSTAT	3739	2.78	1.90	1.0	7.0
H8CMSTAT	3624	2.84	1.90	1.0	7.0
H9CMSTAT	3338	2.93	1.94	1.0	7.0
H10CMSTAT	4079	2.90	1.92	1.0	7.0
H11CMSTAT	3901	2.98	1.93	1.0	7.0
H12CMSTAT	3385	3.05	1.93	1.0	7.0
H13CMSTAT	3339	3.11	1.95	1.0	7.0
H14CMSTAT	3199	3.06	1.94	1.0	7.0

Categorical Variable Codes

HwCMSTAT: CAMS Current Marital Status

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.M=Oth missing						77	60	140	114	249	291
1. married						1956	1710	1868	1746	1546	1875
2. living with partner						93	90	118	114	117	168
3. separated						74	49	69	64	61	95
4. divorced						472	385	526	537	501	704
5. widowed						1044	841	998	999	928	929
6. never married						145	115	146	153	136	274
7. other						5	4	14	11	49	34

Value		w11	w12	w13	w14
.M=Oth missing		166	352	167	124
1. married		1713	1427	1371	1325
2. living with partner		174	140	136	176
3. separated		105	92	103	77
4. divorced		641	590	590	567
5. widowed		971	856	816	750
6. never married		264	248	272	271
7. other		33	32	51	33

How Constructed

This variable is created using the current marital status reported in Part C of the CAMS survey.

CAMS Variables Used

```
CAMS2001-2005:
    C1_YR            C1. MARITAL STATUS
CAMS2007-2019:
    C2_YR            C2. MARITAL STATUS
```

2.8 Total Household Spending

Wave	Variable	Label	Type
5	H5CSTOT	H5CSTOT:W5 CAMS Total Spending	Categ
6	H6CSTOT	H6CSTOT:W6 CAMS Total Spending	Categ
7	H7CSTOT	H7CSTOT:W7 CAMS Total Spending	Categ
8	H8CSTOT	H8CSTOT:W8 CAMS Total Spending	Categ
9	H9CSTOT	H9CSTOT:W9 CAMS Total Spending	Categ
10	H10CSTOT	H10CSTOT:W10 CAMS Total Spending	Categ
11	H11CSTOT	H11CSTOT:W11 CAMS Total Spending	Categ
12	H12CSTOT	H12CSTOT:W12 CAMS Total Spending	Categ
13	H13CSTOT	H13CSTOT:W13 CAMS Total Spending	Categ
14	H14CSTOT	H14CSTOT:W14 CAMS Total Spending	Categ
5	H5CSTOTF	H5CSTOTF:W5 CAMSFlag Total Spending	Categ
6	H6CSTOTF	H6CSTOTF:W6 CAMSFlag Total Spending	Categ
7	H7CSTOTF	H7CSTOTF:W7 CAMSFlag Total Spending	Categ
8	H8CSTOTF	H8CSTOTF:W8 CAMSFlag Total Spending	Categ
9	H9CSTOTF	H9CSTOTF:W9 CAMSFlag Total Spending	Categ
10	H10CSTOTF	H10CSTOTF:W10 CAMSFlag Total Spending	Categ
11	H11CSTOTF	H11CSTOTF:W11 CAMSFlag Total Spending	Categ
12	H12CSTOTF	H12CSTOTF:W12 CAMSFlag Total Spending	Categ
13	H13CSTOTF	H13CSTOTF:W13 CAMSFlag Total Spending	Categ
14	H14CSTOTF	H14CSTOTF:W14 CAMSFlag Total Spending	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSTOT	3789	35979.61	29012.27	0.0	315250.0
H6CSTOT	3224	39330.99	30337.78	0.0	232702.0
H7CSTOT	3832	38550.90	30370.60	0.0	279377.0
H8CSTOT	3704	39492.36	29544.67	0.0	251974.0
H9CSTOT	3550	37432.31	26498.63	0.0	230815.0
H10CSTOT	4319	39167.42	29398.37	0.0	256468.0
H11CSTOT	4017	39813.82	30908.43	0.0	303263.0
H12CSTOT	3689	41358.20	32876.44	0.0	261045.0
H13CSTOT	3454	43159.66	34727.46	0.0	337699.0
H14CSTOT	3264	45013.83	36215.22	0.0	328614.0
H5CSTOTF	3789	0.60	0.76	0.0	3.0
H6CSTOTF	3224	0.66	0.82	0.0	3.0
H7CSTOTF	3832	0.67	0.84	0.0	3.0
H8CSTOTF	3704	0.53	0.71	0.0	3.0
H9CSTOTF	3550	0.51	0.66	0.0	3.0
H10CSTOTF	4319	0.51	0.68	0.0	3.0
H11CSTOTF	4017	0.52	0.71	0.0	3.0
H12CSTOTF	3689	0.48	0.67	0.0	3.0
H13CSTOTF	3454	0.48	0.66	0.0	3.0
H14CSTOTF	3264	0.49	0.67	0.0	3.0

Categorical Variable Codes

```
                          HwCSTOTF: CAMSFlag Total Spending
```

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						77	30	47	34	37	51
0.No imputation						1976	1619	1940	2090	1974	2422
1.Regression imputation onl						1546	1290	1480	1394	1433	1700
2.Imputation to zero only						78	113	149	89	50	67
3.Regression and zero imput						189	202	263	131	93	130

Value		w11	w12	w13	w14
.T=Resp <10 cat		50	48	52	59
0.No imputation		2284	2163	2042	1904
1.Regression imputation onl		1530	1371	1277	1228
2.Imputation to zero only		55	55	41	40
3.Regression and zero imput		148	100	94	92

General Comments

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in "1.11 Cleaning and Imputation of Spending Variables." The categories included in total spending differ across waves due to changes in the survey items. These differences are discussed in more detail in the "1.6 Difference Across Waves" section earlier in this document.

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 14 which asks about 2019 spending.

The spending components are summed to create the total spending measures. A flag indicates whether any of its components were imputed. CAMS spending measures are reported at the household level. The CAMS Respondent reports spending for all members of his/her household.

How Constructed

HwCSTOT is the sum of all of the spending in the household, including durables, nondurables, transportation and housing spending. The spending categories vary by wave. Please see Table 1 for details of which categories are available in each wave. Mortgage payments include only interest. Please refer to "1.7 Spending versus Consumption" for details.

HwCSTOTF is a flag that indicates whether any components are imputed. Please see "1.11 Cleaning and Imputation of Spending Variables" for more information.

Cross Wave Differences in Original CAMS Data

The CAMS 2001 and CAMS 2003 surveys asked fewer spending categories than in the later waves, as documented in "1.6 Differences Across Waves." One method for adjusting 2001 and 2003 spending totals is detailed in "1.10 Cross-Wave Category Adjustments."

CAMS Variables Used

```
CAMS 2001:
    B10A_01          B10A. RENT - PER
    B10_01           B10. RENT
    B11A_01          B11A. ELECTRICITY - PER
    B11_01           B11. ELECTRICITY
    B12A_01          B12A. WATER - PER
    B12_01           B12. WATER
    B13A_01          B13A. HEAT - PER
    B13_01           B13. HEAT
    B14A_01          B14A. PHONE/CABLE - PER
    B14_01           B14. PHONE/CABLE/INTERNET
    B15A_01          B15A. AUTO FINANCE - PER
    B15_01           B15. AUTO FINANCE CHRG
    B16A_01          B16A. AUTO INSUR - PER
    B16_01           B16. AUTO INSURANCE
    B17A_01          B17A. HEALTH INSUR - PER
    B17_01           B17. HEALTH INSURANCE
    B18A_01          B18A. HOUSE/YARD - PER
    B18_01           B18.  HOUSE/YARD SUPPLIES
    B19A_01          B19A. HOME MAINTAIN - PER
    B19_01           B19. HOME MAINTAIN
    B1A_3_01         B1A_3. AUTO YEAR - 1
    B1A_4_01         B1A_4. AUTO PRICE - 1
    B1B_3_01         B1B_3. AUTO YEAR - 2
    B1B_4_01         B1B_4. AUTO PRICE - 2
    B1C_3_01         B1C_3. AUTO YEAR - 3
    B1C_4_01         B1C_4. AUTO PRICE - 3
    B20A_01          B20. FOOD/DRINK GROC - PER
    B20_01           B20. FOOD/DRINK GROCERY
    B21A_01          B21A. DINING OUT - PER
    B21_01           B21. DINING OUT
    B22A_01          B22A. CLOTHING - PER
    B22_01           B22. CLOTHING
    B23A_01          B23A. GASOLINE - PER
    B23_01           B23. GASOLINE
    B24A_01          B24A. VEHICLE SERVICE - PER
    B24_01           B24. VEHICLE SERVICE
    B25A_01          B25A. DRUGS - PER
    B25_01           B25. DRUGS
    B26A_01          B26A. HEALTH SERVICES - PER
    B26_01           B26. HEALTH SERVICES
    B27A_01          B27A. MED SUPPLIES - PER
    B27_01           B27. MEDICAL SUPPLIES
    B28A_01          B28A. VACATIONS - PER
    B28_01           B28. VACATIONS
    B29A_01          B29A. TICKETS - PER
    B29_01           B29. TICKETS
    B30A_01          B30A. HOBBIES - PER
    B30_01           B30. HOBBIES
    B31A_01          B31A. CONTRIBUTIONS - PER
    B31_01           B31. CONTRIBUTIONS
    B32A_01          B32A. GIFTS - PER
    B32_01           B32. GIFTS
    B7A_01           B7A. MORTAGAGE - PER
    B7_01            B7. MORTGAGE
    B8A_01           B8A. HOME/RENT INS - PER
    B8_01            B8. HOME/RENT INS.
    B9A_01           B9A. PROPERTY TAX - PER
```

```
    B9_01              B9. PROPERTY TAX
CAMS 2003:
    B13A_03            B13A. MORTAGAGE – PER
    B13_03             B13. MORTGAGE
    B14A_03            B14A. RENT – PER
    B14_03             B14. RENT
    B15A_03            B15A. ELECTRICITY – PER
    B15_03             B15. ELECTRICITY
    B16A_03            B16A. WATER – PER
    B16_03             B16. WATER
    B17A_03            B17A. HEAT – PER
    B17_03             B17. HEAT
    B18A_03            B18A. PHONE/CABLE – PER
    B18_03             B18. PHONE/CABLE/INTERNET
    B19A_03            B19A. CAR PAYMENTS – PER
    B19_03             B19. CAR PAYMENTS INTEREST/PRINCIPAL
    B20A_03            B20A. HOUSEKEEPING SUPPLIES – PER
    B20_03             B20. HOUSEKEEPING SUPPLIES
    B21A_03            B21A. HOUSEKEEPING SERVICES – PER
    B21_03             B21. HOUSEKEEPING SERVICES
    B22A_03            B22A. GARDEN/YARD SUPPLIES – PER
    B22_03             B22.GARDENING/YARD SUPPLIES
    B23A_03            B23A. GARDEN/YARD SERVICES – PER
    B23_03             B23. GARDEN/YARD SERVICES
    B24A_03            B24A. HOME REPAIRS/MAINTENANCE DIY – PER
    B24_03             B24. HOME REPAIRS/MAINTENANCE DIY
    B25A_03            B25A. HOME REPAIRS/MAINTENANCE SERVICE – PER
    B25_03             B25. HOME REPAIRS/MAINTENANCE SERVICES
    B26A_03            B26A. CLOTHING – PER
    B26_03             B26. CLOTHING AND APPAREL
    B27A_03            B27A. PERSONAL CARE PRODUCTS/SERVICES – PER
    B27_03             B27. PERSONAL CARE PRODUCTS/SERVICES
    B28A_03            B28A. DRUGS – PER
    B28_03             B28. DRUGS
    B29A_03            B29A. HEALTH SERVICES – PER
    B29_03             B29. HEALTH SERVICES
    B30A_03            B30A. MED SUPPLIES – PER
    B30_03             B30. MEDICAL SUPPLIES
    B31A_03            B31A. TICKETS – PER
    B31_03             B31. TICKETS
    B32A_03            B32A. SPORTS EQUIPMENT – PER
    B32_03             B32. SPORTS EQUIPMENT
    B33A_03            B33A. HOBBIES/LEISURE EQUIPMENT – PER
    B33_03             B33. HOBBIES/LEISURE EQUIPMENT
    B34A_03            B34A. CONTRIBUTIONS – PER
    B34_03             B34. CONTRIBUTIONS
    B35A_03            B35A. GIFTS – PER
    B35_03             B35. GIFTS
    B36A_03            B36. FOOD/DRINK GROC – PER
    B36_03             B36. FOOD/DRINK GROCERY
    B37A_03            B37A. DINING OUT – PER
    B37_03             B37. DINING OUT
    B38A_03            B38A. GASOLINE – PER
    B38_03             B38. GASOLINE
CAMS2001–2019:
    B1_YR              B1. PURCHASE/LEASE AUTO
    B2A_YR             B2A. REFRIGERATOR PRICE
    B2_YR              B2. BUY REFRIGERATOR
    B3A_YR             B3A. WASHER/DRYER PRICE
```

```
    B3_YR               B3. BUY WASHER/DRYER
    B4A_YR              B4A. DISHWASHER PRICE
    B4_YR               B4. BUY DISWASHER
    B5A_YR              B5A. TELEVISION PRICE
    B5_YR               B5. BUY TELEVISION
    B6A_YR              B6A. COMPUTER PRICE
    B6_YR               B6. BUY COMPUTER
CAMS2003-2019:
    B10_YR              B10. VEHICLE MAINTENANCE
    B11_YR              B11. HEALTH INSURANCE
    B12_YR              B12. TRIPS AND VACATIONS
    B1A3_YR             B1A3. AUTO YEAR - 1
    B1A4_YR             B1A4. AUTO PRICE - 1
    B1A5_YR             B1A5. AUTO/TRUCK NEW OR USED - 1
    B1B3_YR             B1B3. AUTO YEAR - 2
    B1B4_YR             B1B4. AUTO PRICE - 2
    B1B5_YR             B1B5. AUTO/TRUCK NEW OR USED - 2
    B1C3_YR             B1C3. AUTO YEAR - 3
    B1C4_YR             B1C4. AUTO PRICE - 3
    B1C5_YR             B1C5. AUTO/TRUCK NEW OR USED - 3
    B7_YR               B7. HOME/RENTERS INSURANCE
    B8_YR               B8. PROPERTY TAXES
    B9_YR               B9. VEHICLE INSURANCE
CAMS2005-2019:
    B13_YR              B13. HOME REPAIRS/MAINTENANCE DIY
    B14_YR              B14. HOME REPAIRS/MAINTENANCE SERVICES
    B15_YR              B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
    B16_YR              B16. CONTRIBUTIONS
    B17_YR              B17. GIFTS
    B18A_YR             B18A. MORTGAGE - PER
    B18_YR              B18. MORTGAGE
    B19A_YR             B19A. RENT - PER
    B19_YR              B19. RENT
    B20A_YR             B20A. ELECTRICITY - PER
    B20_YR              B20. ELECTRICITY
    B21A_YR             B21A. WATER - PER
    B21_YR              B21. WATER
    B22A_YR             B22A. HEAT - PER
    B22_YR              B22. HEAT
    B23A_YR             B23A. PHONE/CABLE - PER
    B23_YR              B23. PHONE/CABLE/INTERNET
    B24A_YR             B24A. CAR PAYMENTS - PER
    B24_YR              B24. CAR PAYMENTS INTEREST/PRINCIPAL
    B25A_YR             B25A. HOUSEKEEPING SUPPLIES - PER
    B25_YR              B25. HOUSEKEEPING SUPPLIES
    B26A_YR             B26A. HOUSEKEEPING SERVICES - PER
    B26_YR              B26. HOUSEKEEPING SERVICES
    B27A_YR             B27A. GARDEN/YARD SUPPLIES - PER
    B27_YR              B27. GARDENING/YARD SUPPLIES
    B28A_YR             B28A. GARDEN/YARD SERVICES - PER
    B28_YR              B28. GARDEN/YARD SERVICES
    B29A_YR             B29A. CLOTHING - PER
    B29_YR              B29. CLOTHING AND APPAREL
    B30A_YR             B30A. PERSONAL CARE PROD/SERVICES - PER
    B30_YR              B30. PERSONAL CARE PRODUCTS/SERVICES
    B31A_YR             B31A. DRUGS OOP - PER
    B31_YR              B31. DRUGS OOP
    B32A_YR             B32A. HEALTH SERVICES - PER
    B32_YR              B32. HEALTH SERVICES
```

```
B33A_YR          B33A. MED SUPPLIES - PER
B33_YR           B33. MEDICAL SUPPLIES
B34A_YR          B34A. TICKETS - PER
B34_YR           B34. TICKETS
B35A_YR          B35A. SPORTS EQUIPMENT - PER
B35_YR           B35. SPORTS EQUIPMENT
B36A_YR          B36A. HOBBIES/LEISURE EQUIPMENT - PER
B36_YR           B36. HOBBIES/LEISURE EQUIPMENT
B37A_YR          B37A. FOOD/DRINK GROC - PER
B37_YR           B37. FOOD/DRINK GROCERY
B38A_YR          B38A. DINING OUT - PER
B38_YR           B38. DINING OUT
B39A_YR          B39A. GASOLINE - PER
B39_YR           B39. GASOLINE
```

2.9 Total Durables Spending

Wave	Variable	Label	Type
5	H5CSDUR	H5CSDUR:W5 CAMS Total Durables Spending excl. car purch.	Categ
6	H6CSDUR	H6CSDUR:W6 CAMS Total Durables Spending excl. car purch.	Categ
7	H7CSDUR	H7CSDUR:W7 CAMS Total Durables Spending excl. car purch.	Categ
8	H8CSDUR	H8CSDUR:W8 CAMS Total Durables Spending excl. car purch.	Categ
9	H9CSDUR	H9CSDUR:W9 CAMS Total Durables Spending excl. car purch.	Categ
10	H10CSDUR	H10CSDUR:W10 CAMS Total Durables Spending excl. car purch.	Categ
11	H11CSDUR	H11CSDUR:W11 CAMS Total Durables Spending excl. car purch.	Categ
12	H12CSDUR	H12CSDUR:W12 CAMS Total Durables Spending excl. car purch.	Categ
13	H13CSDUR	H13CSDUR:W13 CAMS Total Durables Spending excl. car purch.	Categ
14	H14CSDUR	H14CSDUR:W14 CAMS Total Durables Spending excl. car purch.	Categ
5	H5CSDURF	H5CSDURF:W5 CAMSFlag Total Durables Spending excl. car purch.	Categ
6	H6CSDURF	H6CSDURF:W6 CAMSFlag Total Durables Spending excl. car purch.	Categ
7	H7CSDURF	H7CSDURF:W7 CAMSFlag Total Durables Spending excl. car purch.	Categ
8	H8CSDURF	H8CSDURF:W8 CAMSFlag Total Durables Spending excl. car purch.	Categ
9	H9CSDURF	H9CSDURF:W9 CAMSFlag Total Durables Spending excl. car purch.	Categ
10	H10CSDURF	H10CSDURF:W10 CAMSFlag Total Durables Spending excl. car purch.	Categ
11	H11CSDURF	H11CSDURF:W11 CAMSFlag Total Durables Spending excl. car purch.	Categ
12	H12CSDURF	H12CSDURF:W12 CAMSFlag Total Durables Spending excl. car purch.	Categ
13	H13CSDURF	H13CSDURF:W13 CAMSFlag Total Durables Spending excl. car purch.	Categ
14	H14CSDURF	H14CSDURF:W14 CAMSFlag Total Durables Spending excl. car purch.	Categ
5	H5CSFRIDGE	H5CSFRIDGE:W5 CAMS Refrigerator Spending	Categ
6	H6CSFRIDGE	H6CSFRIDGE:W6 CAMS Refrigerator Spending	Categ
7	H7CSFRIDGE	H7CSFRIDGE:W7 CAMS Refrigerator Spending	Categ
8	H8CSFRIDGE	H8CSFRIDGE:W8 CAMS Refrigerator Spending	Categ
9	H9CSFRIDGE	H9CSFRIDGE:W9 CAMS Refrigerator Spending	Categ
10	H10CSFRIDGE	H10CSFRIDGE:W10 CAMS Refrigerator Spending	Categ
11	H11CSFRIDGE	H11CSFRIDGE:W11 CAMS Refrigerator Spending	Categ
12	H12CSFRIDGE	H12CSFRIDGE:W12 CAMS Refrigerator Spending	Categ
13	H13CSFRIDGE	H13CSFRIDGE:W13 CAMS Refrigerator Spending	Categ
14	H14CSFRIDGE	H14CSFRIDGE:W14 CAMS Refrigerator Spending	Categ
5	H5CSWASHDRY	H5CSWASHDRY:W5 CAMS Washer/Dryer Spending	Categ
6	H6CSWASHDRY	H6CSWASHDRY:W6 CAMS Washer/Dryer Spending	Categ
7	H7CSWASHDRY	H7CSWASHDRY:W7 CAMS Washer/Dryer Spending	Categ
8	H8CSWASHDRY	H8CSWASHDRY:W8 CAMS Washer/Dryer Spending	Categ
9	H9CSWASHDRY	H9CSWASHDRY:W9 CAMS Washer/Dryer Spending	Categ
10	H10CSWASHDRY	H10CSWASHDRY:W10 CAMS Washer/Dryer Spending	Categ
11	H11CSWASHDRY	H11CSWASHDRY:W11 CAMS Washer/Dryer Spending	Categ
12	H12CSWASHDRY	H12CSWASHDRY:W12 CAMS Washer/Dryer Spending	Categ
13	H13CSWASHDRY	H13CSWASHDRY:W13 CAMS Washer/Dryer Spending	Categ
14	H14CSWASHDRY	H14CSWASHDRY:W14 CAMS Washer/Dryer Spending	Categ
5	H5CSDISHW	H5CSDISHW:W5 CAMS Dishwasher Spending	Categ
6	H6CSDISHW	H6CSDISHW:W6 CAMS Dishwasher Spending	Categ
7	H7CSDISHW	H7CSDISHW:W7 CAMS Dishwasher Spending	Categ
8	H8CSDISHW	H8CSDISHW:W8 CAMS Dishwasher Spending	Categ
9	H9CSDISHW	H9CSDISHW:W9 CAMS Dishwasher Spending	Categ
10	H10CSDISHW	H10CSDISHW:W10 CAMS Dishwasher Spending	Categ
11	H11CSDISHW	H11CSDISHW:W11 CAMS Dishwasher Spending	Categ
12	H12CSDISHW	H12CSDISHW:W12 CAMS Dishwasher Spending	Categ
13	H13CSDISHW	H13CSDISHW:W13 CAMS Dishwasher Spending	Categ
14	H14CSDISHW	H14CSDISHW:W14 CAMS Dishwasher Spending	Categ
5	H5CSPC	H5CSPC:W5 CAMS Computer Spending	Categ
6	H6CSPC	H6CSPC:W6 CAMS Computer Spending	Categ
7	H7CSPC	H7CSPC:W7 CAMS Computer Spending	Categ
8	H8CSPC	H8CSPC:W8 CAMS Computer Spending	Categ
9	H9CSPC	H9CSPC:W9 CAMS Computer Spending	Categ
10	H10CSPC	H10CSPC:W10 CAMS Computer Spending	Categ
11	H11CSPC	H11CSPC:W11 CAMS Computer Spending	Categ
12	H12CSPC	H12CSPC:W12 CAMS Computer Spending	Categ
13	H13CSPC	H13CSPC:W13 CAMS Computer Spending	Categ
14	H14CSPC	H14CSPC:W14 CAMS Computer Spending	Categ

```
 5    H5CSTV              H5CSTV:W5 CAMS Television Spending                   Categ
 6    H6CSTV              H6CSTV:W6 CAMS Television Spending                   Categ
 7    H7CSTV              H7CSTV:W7 CAMS Television Spending                   Categ
 8    H8CSTV              H8CSTV:W8 CAMS Television Spending                   Categ
 9    H9CSTV              H9CSTV:W9 CAMS Television Spending                   Categ
10    H10CSTV             H10CSTV:W10 CAMS Television Spending                 Categ
11    H11CSTV             H11CSTV:W11 CAMS Television Spending                 Categ
12    H12CSTV             H12CSTV:W12 CAMS Television Spending                 Categ
13    H13CSTV             H13CSTV:W13 CAMS Television Spending                 Categ
14    H14CSTV             H14CSTV:W14 CAMS Television Spending                 Categ
```

Descriptive Statistics

```
Variable            N        Mean     Std Dev    Minimum    Maximum

H5CSDUR           3789      321.19     658.88       0.0      5558.0
H6CSDUR           3224      301.16     602.39       0.0      5054.0
H7CSDUR           3832      360.04     750.01       0.0      6650.0
H8CSDUR           3704      407.26     815.55       0.0     10879.0
H9CSDUR           3550      376.24     698.58       0.0      6700.0
H10CSDUR          4319      351.01     655.63       0.0      6228.0
H11CSDUR          4017      321.74     654.78       0.0      6400.0
H12CSDUR          3689      286.35     635.52       0.0      8134.0
H13CSDUR          3454      289.32     637.99       0.0      6750.0
H14CSDUR          3264      299.64     622.87       0.0      5615.0

H5CSDURF          3789        0.13       0.47       0.0         3.0
H6CSDURF          3224        0.16       0.52       0.0         3.0
H7CSDURF          3832        0.16       0.54       0.0         3.0
H8CSDURF          3704        0.09       0.39       0.0         3.0
H9CSDURF          3550        0.07       0.32       0.0         3.0
H10CSDURF         4319        0.07       0.32       0.0         3.0
H11CSDURF         4017        0.06       0.31       0.0         2.0
H12CSDURF         3689        0.05       0.28       0.0         3.0
H13CSDURF         3454        0.06       0.30       0.0         3.0
H14CSDURF         3264        0.05       0.28       0.0         3.0

H5CSFRIDGE        3844       55.91     218.69       0.0      2000.0
H6CSFRIDGE        3246       57.58     229.44       0.0      2000.0
H7CSFRIDGE        3864       64.79     260.69       0.0      3000.0
H8CSFRIDGE        3725       62.54     256.56       0.0      2600.0
H9CSFRIDGE        3576       59.16     261.53       0.0      2395.0
H10CSFRIDGE       4355       62.51     265.85       0.0      2589.0
H11CSFRIDGE       4048       71.19     305.59       0.0      3000.0
H12CSFRIDGE       3728       69.34     308.45       0.0      3000.0
H13CSFRIDGE       3485       81.36     347.05       0.0      3399.0
H14CSFRIDGE       3301       73.69     309.74       0.0      2800.0

H5CSWASHDRY       3845       41.60     165.29       0.0      1700.0
H6CSWASHDRY       3247       50.38     192.35       0.0      1800.0
H7CSWASHDRY       3865       50.83     205.56       0.0      2000.0
H8CSWASHDRY       3726       65.28     253.30       0.0      2500.0
H9CSWASHDRY       3576       57.05     233.68       0.0      2700.0
H10CSWASHDRY      4352       53.23     216.76       0.0      2597.0
H11CSWASHDRY      4048       64.72     251.31       0.0      2400.0
H12CSWASHDRY      3728       56.87     235.52       0.0      2300.0
H13CSWASHDRY      3486       60.22     236.57       0.0      3000.0
H14CSWASHDRY      3300       68.30     254.61       0.0      2400.0
```

```
H5CSDISHW        3847      17.52       91.87        0.0        900.0
H6CSDISHW        3248      18.97       92.24        0.0        850.0
H7CSDISHW        3864      18.91       97.14        0.0        900.0
H8CSDISHW        3727      21.76      106.87        0.0       1009.0
H9CSDISHW        3577      16.08       91.81        0.0       1000.0
H10CSDISHW       4353      16.66       93.44        0.0        850.0
H11CSDISHW       4047      17.82      101.71        0.0       1000.0
H12CSDISHW       3729      19.73      110.54        0.0       1200.0
H13CSDISHW       3487      20.21      108.81        0.0       1000.0
H14CSDISHW       3301      22.28      120.79        0.0       1200.0

H5CSPC           3845     137.17      460.16        0.0       4500.0
H6CSPC           3246     109.15      382.09        0.0       3000.0
H7CSPC           3865     126.94      409.47        0.0       3500.0
H8CSPC           3728     109.41      355.33        0.0       3000.0
H9CSPC           3576      91.92      287.78        0.0       2500.0
H10CSPC          4352     107.28      306.69        0.0       2800.0
H11CSPC          4046      81.63      261.21        0.0       2700.0
H12CSPC          3727      71.15      248.22        0.0       2300.0
H13CSPC          3487      64.31      240.95        0.0       2100.0
H14CSPC          3302      84.18      284.84        0.0       2500.0

H5CSTV           3844      66.08      243.52        0.0       2800.0
H6CSTV           3248      64.54      235.53        0.0       3000.0
H7CSTV           3862      96.41      385.45        0.0       4500.0
H8CSTV           3726     146.22      473.79        0.0       5000.0
H9CSTV           3578     151.30      393.71        0.0       3200.0
H10CSTV          4352     109.91      317.85        0.0       3000.0
H11CSTV          4046      85.60      268.88        0.0       3000.0
H12CSTV          3729      67.29      239.02        0.0       3500.0
H13CSTV          3486      61.83      223.27        0.0       2400.0
H14CSTV          3301      53.72      213.01        0.0       3000.0
```

Categorical Variable Codes

<hr>

HwCSDURF: CAMSFlag Total Durables Spending excl. car purch.

<hr>

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						77	30	47	34	37	51
0.No imputation						3498	2921	3477	3488	3376	4107
1.Regression imputation onl						92	89	90	90	114	129
2.Imputation to zero only						198	210	253	124	57	81
3.Regression and zero imput						1	4	12	2	3	2

<hr>

Value		w11	w12	w13	w14
.T=Resp <10 cat		50	48	52	59
0.No imputation		3828	3553	3314	3139
1.Regression imputation onl		118	84	86	79
2.Imputation to zero only		71	50	49	44
3.Regression and zero imput			2	5	2

General Comments

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in "1.11 Cleaning and Imputation of Spending Variables." The categories included in total spending differ across waves due to changes in the survey items. These differences are discussed in more detail in the "1.6 Difference Across Waves" section earlier in this document.

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 14 which asks about 2019 spending.

The spending components are summed to create the total spending measures. A flag indicates whether any of its components were imputed. CAMS spending measures are reported at the household level. The CAMS Respondent reports spending for all members of his/her household.

How Constructed

HwCSDUR is the sum of all of the household spending on durable goods excluding autos. The durable spending categories do not vary by wave. There are five durable categories: refrigerator (HwCSFRIDGE), washer/dryer (HwCSWASHDRY), dishwasher (HwCSDISHW), television (HwCSTV), and computer (HwCSPC).

HwCSDURF is a flag that indicates whether any durable components are imputed. Please see section "1.11 Cleaning and Imputation of Spending Variables" for more information on imputation methods and section "2.17 Category-level Flags" for information on the category-level imputation flags.

CAMS Variables Used

```
CAMS2001-2019:
    B2A_YR          B2A. REFRIGERATOR PRICE
    B2_YR           B2. BUY REFRIGERATOR
    B3A_YR          B3A. WASHER/DRYER PRICE
    B3_YR           B3. BUY WASHER/DRYER
    B4A_YR          B4A. DISHWASHER PRICE
```

```
B4_YR           B4. BUY DISWASHER
B5A_YR          B5A. TELEVISION PRICE
B5_YR           B5. BUY TELEVISION
B6A_YR          B6A. COMPUTER PRICE
B6_YR           B6. BUY COMPUTER
```

2.10 Total Nondurables Spending

Wave	Variable	Label	Type
5	H5CSNDUR	H5CSNDUR:W5 CAMS Total Nondurables Spending	Categ
6	H6CSNDUR	H6CSNDUR:W6 CAMS Total Nondurables Spending	Categ
7	H7CSNDUR	H7CSNDUR:W7 CAMS Total Nondurables Spending	Categ
8	H8CSNDUR	H8CSNDUR:W8 CAMS Total Nondurables Spending	Categ
9	H9CSNDUR	H9CSNDUR:W9 CAMS Total Nondurables Spending	Categ
10	H10CSNDUR	H10CSNDUR:W10 CAMS Total Nondurables Spending	Categ
11	H11CSNDUR	H11CSNDUR:W11 CAMS Total Nondurables Spending	Categ
12	H12CSNDUR	H12CSNDUR:W12 CAMS Total Nondurables Spending	Categ
13	H13CSNDUR	H13CSNDUR:W13 CAMS Total Nondurables Spending	Categ
14	H14CSNDUR	H14CSNDUR:W14 CAMS Total Nondurables Spending	Categ
5	H5CSNDURF	H5CSNDURF:W5 CAMSFlag Total Nondurables Spending	Categ
6	H6CSNDURF	H6CSNDURF:W6 CAMSFlag Total Nondurables Spending	Categ
7	H7CSNDURF	H7CSNDURF:W7 CAMSFlag Total Nondurables Spending	Categ
8	H8CSNDURF	H8CSNDURF:W8 CAMSFlag Total Nondurables Spending	Categ
9	H9CSNDURF	H9CSNDURF:W9 CAMSFlag Total Nondurables Spending	Categ
10	H10CSNDURF	H10CSNDURF:W10 CAMSFlag Total Nondurables Spending	Categ
11	H11CSNDURF	H11CSNDURF:W11 CAMSFlag Total Nondurables Spending	Categ
12	H12CSNDURF	H12CSNDURF:W12 CAMSFlag Total Nondurables Spending	Categ
13	H13CSNDURF	H13CSNDURF:W13 CAMSFlag Total Nondurables Spending	Categ
14	H14CSNDURF	H14CSNDURF:W14 CAMSFlag Total Nondurables Spending	Categ
5	H5CSCASHGIFT	H5CSCASHGIFT:W5 CAMS Cash/Gifts	Categ
6	H6CSCASHGIFT	H6CSCASHGIFT:W6 CAMS Cash/Gifts	Categ
7	H7CSCASHGIFT	H7CSCASHGIFT:W7 CAMS Cash/Gifts	Categ
8	H8CSCASHGIFT	H8CSCASHGIFT:W8 CAMS Cash/Gifts	Categ
9	H9CSCASHGIFT	H9CSCASHGIFT:W9 CAMS Cash/Gifts	Categ
10	H10CSCASHGIFT	H10CSCASHGIFT:W10 CAMS Cash/Gifts	Categ
11	H11CSCASHGIFT	H11CSCASHGIFT:W11 CAMS Cash/Gifts	Categ
12	H12CSCASHGIFT	H12CSCASHGIFT:W12 CAMS Cash/Gifts	Categ
13	H13CSCASHGIFT	H13CSCASHGIFT:W13 CAMS Cash/Gifts	Categ
14	H14CSCASHGIFT	H14CSCASHGIFT:W14 CAMS Cash/Gifts	Categ
5	H5CSCLOTH	H5CSCLOTH:W5 CAMS Clothing	Categ
6	H6CSCLOTH	H6CSCLOTH:W6 CAMS Clothing	Categ
7	H7CSCLOTH	H7CSCLOTH:W7 CAMS Clothing	Categ
8	H8CSCLOTH	H8CSCLOTH:W8 CAMS Clothing	Categ
9	H9CSCLOTH	H9CSCLOTH:W9 CAMS Clothing	Categ
10	H10CSCLOTH	H10CSCLOTH:W10 CAMS Clothing	Categ
11	H11CSCLOTH	H11CSCLOTH:W11 CAMS Clothing	Categ
12	H12CSCLOTH	H12CSCLOTH:W12 CAMS Clothing	Categ
13	H13CSCLOTH	H13CSCLOTH:W13 CAMS Clothing	Categ
14	H14CSCLOTH	H14CSCLOTH:W14 CAMS Clothing	Categ
5	H5CSCONTS	H5CSCONTS:W5 CAMS Contributions	Categ
6	H6CSCONTS	H6CSCONTS:W6 CAMS Contributions	Categ
7	H7CSCONTS	H7CSCONTS:W7 CAMS Contributions	Categ
8	H8CSCONTS	H8CSCONTS:W8 CAMS Contributions	Categ
9	H9CSCONTS	H9CSCONTS:W9 CAMS Contributions	Categ
10	H10CSCONTS	H10CSCONTS:W10 CAMS Contributions	Categ
11	H11CSCONTS	H11CSCONTS:W11 CAMS Contributions	Categ
12	H12CSCONTS	H12CSCONTS:W12 CAMS Contributions	Categ
13	H13CSCONTS	H13CSCONTS:W13 CAMS Contributions	Categ
14	H14CSCONTS	H14CSCONTS:W14 CAMS Contributions	Categ
5	H5CSDINOUT	H5CSDINOUT:W5 CAMS Dining Out	Categ
6	H6CSDINOUT	H6CSDINOUT:W6 CAMS Dining Out	Categ
7	H7CSDINOUT	H7CSDINOUT:W7 CAMS Dining Out	Categ
8	H8CSDINOUT	H8CSDINOUT:W8 CAMS Dining Out	Categ
9	H9CSDINOUT	H9CSDINOUT:W9 CAMS Dining Out	Categ
10	H10CSDINOUT	H10CSDINOUT:W10 CAMS Dining Out	Categ
11	H11CSDINOUT	H11CSDINOUT:W11 CAMS Dining Out	Categ
12	H12CSDINOUT	H12CSDINOUT:W12 CAMS Dining Out	Categ
13	H13CSDINOUT	H13CSDINOUT:W13 CAMS Dining Out	Categ
14	H14CSDINOUT	H14CSDINOUT:W14 CAMS Dining Out	Categ

```
 5    H5CSDRUGS           H5CSDRUGS:W5 CAMS Drugs                  Categ
 6    H6CSDRUGS           H6CSDRUGS:W6 CAMS Drugs                  Categ
 7    H7CSDRUGS           H7CSDRUGS:W7 CAMS Drugs                  Categ
 8    H8CSDRUGS           H8CSDRUGS:W8 CAMS Drugs                  Categ
 9    H9CSDRUGS           H9CSDRUGS:W9 CAMS Drugs                  Categ
10    H10CSDRUGS          H10CSDRUGS:W10 CAMS Drugs                Categ
11    H11CSDRUGS          H11CSDRUGS:W11 CAMS Drugs                Categ
12    H12CSDRUGS          H12CSDRUGS:W12 CAMS Drugs                Categ
13    H13CSDRUGS          H13CSDRUGS:W13 CAMS Drugs                Categ
14    H14CSDRUGS          H14CSDRUGS:W14 CAMS Drugs                Categ

 5    H5CSELECTRIC        H5CSELECTRIC:W5 CAMS Electricity         Categ
 6    H6CSELECTRIC        H6CSELECTRIC:W6 CAMS Electricity         Categ
 7    H7CSELECTRIC        H7CSELECTRIC:W7 CAMS Electricity         Categ
 8    H8CSELECTRIC        H8CSELECTRIC:W8 CAMS Electricity         Categ
 9    H9CSELECTRIC        H9CSELECTRIC:W9 CAMS Electricity         Categ
10    H10CSELECTRIC       H10CSELECTRIC:W10 CAMS Electricity       Categ
11    H11CSELECTRIC       H11CSELECTRIC:W11 CAMS Electricity       Categ
12    H12CSELECTRIC       H12CSELECTRIC:W12 CAMS Electricity       Categ
13    H13CSELECTRIC       H13CSELECTRIC:W13 CAMS Electricity       Categ
14    H14CSELECTRIC       H14CSELECTRIC:W14 CAMS Electricity       Categ

 5    H5CSFDBEV           H5CSFDBEV:W5 CAMS Food/Drink Grocery      Categ
 6    H6CSFDBEV           H6CSFDBEV:W6 CAMS Food/Drink Grocery      Categ
 7    H7CSFDBEV           H7CSFDBEV:W7 CAMS Food/Drink Grocery      Categ
 8    H8CSFDBEV           H8CSFDBEV:W8 CAMS Food/Drink Grocery      Categ
 9    H9CSFDBEV           H9CSFDBEV:W9 CAMS Food/Drink Grocery      Categ
10    H10CSFDBEV          H10CSFDBEV:W10 CAMS Food/Drink Grocery    Categ
11    H11CSFDBEV          H11CSFDBEV:W11 CAMS Food/Drink Grocery    Categ
12    H12CSFDBEV          H12CSFDBEV:W12 CAMS Food/Drink Grocery    Categ
13    H13CSFDBEV          H13CSFDBEV:W13 CAMS Food/Drink Grocery    Categ
14    H14CSFDBEV          H14CSFDBEV:W14 CAMS Food/Drink Grocery    Categ

 5    H5CSHEAT            H5CSHEAT:W5 CAMS Heat                     Categ
 6    H6CSHEAT            H6CSHEAT:W6 CAMS Heat                     Categ
 7    H7CSHEAT            H7CSHEAT:W7 CAMS Heat                     Categ
 8    H8CSHEAT            H8CSHEAT:W8 CAMS Heat                     Categ
 9    H9CSHEAT            H9CSHEAT:W9 CAMS Heat                     Categ
10    H10CSHEAT           H10CSHEAT:W10 CAMS Heat                   Categ
11    H11CSHEAT           H11CSHEAT:W11 CAMS Heat                   Categ
12    H12CSHEAT           H12CSHEAT:W12 CAMS Heat                   Categ
13    H13CSHEAT           H13CSHEAT:W13 CAMS Heat                   Categ
14    H14CSHEAT           H14CSHEAT:W14 CAMS Heat                   Categ

 5    H5CSHLTHINS         H5CSHLTHINS:W5 CAMS Health Insurance      Categ
 6    H6CSHLTHINS         H6CSHLTHINS:W6 CAMS Health Insurance      Categ
 7    H7CSHLTHINS         H7CSHLTHINS:W7 CAMS Health Insurance      Categ
 8    H8CSHLTHINS         H8CSHLTHINS:W8 CAMS Health Insurance      Categ
 9    H9CSHLTHINS         H9CSHLTHINS:W9 CAMS Health Insurance      Categ
10    H10CSHLTHINS        H10CSHLTHINS:W10 CAMS Health Insurance    Categ
11    H11CSHLTHINS        H11CSHLTHINS:W11 CAMS Health Insurance    Categ
12    H12CSHLTHINS        H12CSHLTHINS:W12 CAMS Health Insurance    Categ
13    H13CSHLTHINS        H13CSHLTHINS:W13 CAMS Health Insurance    Categ
14    H14CSHLTHINS        H14CSHLTHINS:W14 CAMS Health Insurance    Categ

 5    H5CSHLTHSVC         H5CSHLTHSVC:W5 CAMS Health Services       Categ
 6    H6CSHLTHSVC         H6CSHLTHSVC:W6 CAMS Health Services       Categ
 7    H7CSHLTHSVC         H7CSHLTHSVC:W7 CAMS Health Services       Categ
 8    H8CSHLTHSVC         H8CSHLTHSVC:W8 CAMS Health Services       Categ
 9    H9CSHLTHSVC         H9CSHLTHSVC:W9 CAMS Health Services       Categ
10    H10CSHLTHSVC        H10CSHLTHSVC:W10 CAMS Health Services     Categ
11    H11CSHLTHSVC        H11CSHLTHSVC:W11 CAMS Health Services     Categ
12    H12CSHLTHSVC        H12CSHLTHSVC:W12 CAMS Health Services     Categ
13    H13CSHLTHSVC        H13CSHLTHSVC:W13 CAMS Health Services     Categ
14    H14CSHLTHSVC        H14CSHLTHSVC:W14 CAMS Health Services     Categ

 5    H5CSMEDSUP          H5CSMEDSUP:W5 CAMS Medical Supplies       Categ
 6    H6CSMEDSUP          H6CSMEDSUP:W6 CAMS Medical Supplies       Categ
 7    H7CSMEDSUP          H7CSMEDSUP:W7 CAMS Medical Supplies       Categ
 8    H8CSMEDSUP          H8CSMEDSUP:W8 CAMS Medical Supplies       Categ
 9    H9CSMEDSUP          H9CSMEDSUP:W9 CAMS Medical Supplies       Categ
10    H10CSMEDSUP         H10CSMEDSUP:W10 CAMS Medical Supplies     Categ
```

```
11    H11CSMEDSUP          H11CSMEDSUP:W11 CAMS Medical Supplies              Categ
12    H12CSMEDSUP          H12CSMEDSUP:W12 CAMS Medical Supplies              Categ
13    H13CSMEDSUP          H13CSMEDSUP:W13 CAMS Medical Supplies              Categ
14    H14CSMEDSUP          H14CSMEDSUP:W14 CAMS Medical Supplies              Categ

 5    H5CSTELECOM          H5CSTELECOM:W5 CAMS Telecom                        Categ
 6    H6CSTELECOM          H6CSTELECOM:W6 CAMS Telecom                        Categ
 7    H7CSTELECOM          H7CSTELECOM:W7 CAMS Telecom                        Categ
 8    H8CSTELECOM          H8CSTELECOM:W8 CAMS Telecom                        Categ
 9    H9CSTELECOM          H9CSTELECOM:W9 CAMS Telecom                        Categ
10    H10CSTELECOM         H10CSTELECOM:W10 CAMS Telecom                      Categ
11    H11CSTELECOM         H11CSTELECOM:W11 CAMS Telecom                      Categ
12    H12CSTELECOM         H12CSTELECOM:W12 CAMS Telecom                      Categ
13    H13CSTELECOM         H13CSTELECOM:W13 CAMS Telecom                      Categ
14    H14CSTELECOM         H14CSTELECOM:W14 CAMS Telecom                      Categ

 5    H5CSTICKET           H5CSTICKET:W5 CAMS Tickets                         Categ
 6    H6CSTICKET           H6CSTICKET:W6 CAMS Tickets                         Categ
 7    H7CSTICKET           H7CSTICKET:W7 CAMS Tickets                         Categ
 8    H8CSTICKET           H8CSTICKET:W8 CAMS Tickets                         Categ
 9    H9CSTICKET           H9CSTICKET:W9 CAMS Tickets                         Categ
10    H10CSTICKET          H10CSTICKET:W10 CAMS Tickets                       Categ
11    H11CSTICKET          H11CSTICKET:W11 CAMS Tickets                       Categ
12    H12CSTICKET          H12CSTICKET:W12 CAMS Tickets                       Categ
13    H13CSTICKET          H13CSTICKET:W13 CAMS Tickets                       Categ
14    H14CSTICKET          H14CSTICKET:W14 CAMS Tickets                       Categ

 5    H5CSTRIPVAC          H5CSTRIPVAC:W5 CAMS Trips/Vacations                Categ
 6    H6CSTRIPVAC          H6CSTRIPVAC:W6 CAMS Trips/Vacations                Categ
 7    H7CSTRIPVAC          H7CSTRIPVAC:W7 CAMS Trips/Vacations                Categ
 8    H8CSTRIPVAC          H8CSTRIPVAC:W8 CAMS Trips/Vacations                Categ
 9    H9CSTRIPVAC          H9CSTRIPVAC:W9 CAMS Trips/Vacations                Categ
10    H10CSTRIPVAC         H10CSTRIPVAC:W10 CAMS Trips/Vacations              Categ
11    H11CSTRIPVAC         H11CSTRIPVAC:W11 CAMS Trips/Vacations              Categ
12    H12CSTRIPVAC         H12CSTRIPVAC:W12 CAMS Trips/Vacations              Categ
13    H13CSTRIPVAC         H13CSTRIPVAC:W13 CAMS Trips/Vacations              Categ
14    H14CSTRIPVAC         H14CSTRIPVAC:W14 CAMS Trips/Vacations              Categ

 5    H5CSWATER            H5CSWATER:W5 CAMS Water                            Categ
 6    H6CSWATER            H6CSWATER:W6 CAMS Water                            Categ
 7    H7CSWATER            H7CSWATER:W7 CAMS Water                            Categ
 8    H8CSWATER            H8CSWATER:W8 CAMS Water                            Categ
 9    H9CSWATER            H9CSWATER:W9 CAMS Water                            Categ
10    H10CSWATER           H10CSWATER:W10 CAMS Water                          Categ
11    H11CSWATER           H11CSWATER:W11 CAMS Water                          Categ
12    H12CSWATER           H12CSWATER:W12 CAMS Water                          Categ
13    H13CSWATER           H13CSWATER:W13 CAMS Water                          Categ
14    H14CSWATER           H14CSWATER:W14 CAMS Water                          Categ

 6    H6CSPRSCARE          H6CSPRSCARE:W6 CAMS Personal Care                  Categ
 7    H7CSPRSCARE          H7CSPRSCARE:W7 CAMS Personal Care                  Categ
 8    H8CSPRSCARE          H8CSPRSCARE:W8 CAMS Personal Care                  Categ
 9    H9CSPRSCARE          H9CSPRSCARE:W9 CAMS Personal Care                  Categ
10    H10CSPRSCARE         H10CSPRSCARE:W10 CAMS Personal Care                Categ
11    H11CSPRSCARE         H11CSPRSCARE:W11 CAMS Personal Care                Categ
12    H12CSPRSCARE         H12CSPRSCARE:W12 CAMS Personal Care                Categ
13    H13CSPRSCARE         H13CSPRSCARE:W13 CAMS Personal Care                Categ
14    H14CSPRSCARE         H14CSPRSCARE:W14 CAMS Personal Care                Categ

 7    H7CSFURNISH          H7CSFURNISH:W7 CAMS HH Furnishings                 Categ
 8    H8CSFURNISH          H8CSFURNISH:W8 CAMS HH Furnishings                 Categ
 9    H9CSFURNISH          H9CSFURNISH:W9 CAMS HH Furnishings                 Categ
10    H10CSFURNISH         H10CSFURNISH:W10 CAMS HH Furnishings               Categ
11    H11CSFURNISH         H11CSFURNISH:W11 CAMS HH Furnishings               Categ
12    H12CSFURNISH         H12CSFURNISH:W12 CAMS HH Furnishings               Categ
13    H13CSFURNISH         H13CSFURNISH:W13 CAMS HH Furnishings               Categ
14    H14CSFURNISH         H14CSFURNISH:W14 CAMS HH Furnishings               Categ

 5    H5CSHOBSPORT         H5CSHOBSPORT:W5 CAMS Hobbies/Sports Equipment      Categ

 6    H6CSHOBBY            H6CSHOBBY:W6 CAMS Hobbies                          Categ
 7    H7CSHOBBY            H7CSHOBBY:W7 CAMS Hobbies                          Categ
```

```
8    H8CSHOBBY          H8CSHOBBY:W8 CAMS Hobbies                          Categ
9    H9CSHOBBY          H9CSHOBBY:W9 CAMS Hobbies                          Categ
10   H10CSHOBBY         H10CSHOBBY:W10 CAMS Hobbies                        Categ
11   H11CSHOBBY         H11CSHOBBY:W11 CAMS Hobbies                        Categ
12   H12CSHOBBY         H12CSHOBBY:W12 CAMS Hobbies                        Categ
13   H13CSHOBBY         H13CSHOBBY:W13 CAMS Hobbies                        Categ
14   H14CSHOBBY         H14CSHOBBY:W14 CAMS Hobbies                        Categ

6    H6CSSPORT          H6CSSPORT:W6 CAMS Sports Equipment                 Categ
7    H7CSSPORT          H7CSSPORT:W7 CAMS Sports Equipment                 Categ
8    H8CSSPORT          H8CSSPORT:W8 CAMS Sports Equipment                 Categ
9    H9CSSPORT          H9CSSPORT:W9 CAMS Sports Equipment                 Categ
10   H10CSSPORT         H10CSSPORT:W10 CAMS Sports Equipment               Categ
11   H11CSSPORT         H11CSSPORT:W11 CAMS Sports Equipment               Categ
12   H12CSSPORT         H12CSSPORT:W12 CAMS Sports Equipment               Categ
13   H13CSSPORT         H13CSSPORT:W13 CAMS Sports Equipment               Categ
14   H14CSSPORT         H14CSSPORT:W14 CAMS Sports Equipment               Categ

5    H5CSHKYRDSUP       H5CSHKYRDSUP:W5 CAMS Housekeeping/Yard Supplies    Categ

6    H6CSYRDSUP         H6CSYRDSUP:W6 CAMS Yard Supplies                   Categ
7    H7CSYRDSUP         H7CSYRDSUP:W7 CAMS Yard Supplies                   Categ
8    H8CSYRDSUP         H8CSYRDSUP:W8 CAMS Yard Supplies                   Categ
9    H9CSYRDSUP         H9CSYRDSUP:W9 CAMS Yard Supplies                   Categ
10   H10CSYRDSUP        H10CSYRDSUP:W10 CAMS Yard Supplies                 Categ
11   H11CSYRDSUP        H11CSYRDSUP:W11 CAMS Yard Supplies                 Categ
12   H12CSYRDSUP        H12CSYRDSUP:W12 CAMS Yard Supplies                 Categ
13   H13CSYRDSUP        H13CSYRDSUP:W13 CAMS Yard Supplies                 Categ
14   H14CSYRDSUP        H14CSYRDSUP:W14 CAMS Yard Supplies                 Categ

6    H6CSYRDSVC         H6CSYRDSVC:W6 CAMS Gardening/Yard Services         Categ
7    H7CSYRDSVC         H7CSYRDSVC:W7 CAMS Gardening/Yard Services         Categ
8    H8CSYRDSVC         H8CSYRDSVC:W8 CAMS Gardening/Yard Services         Categ
9    H9CSYRDSVC         H9CSYRDSVC:W9 CAMS Gardening/Yard Services         Categ
10   H10CSYRDSVC        H10CSYRDSVC:W10 CAMS Gardening/Yard Services       Categ
11   H11CSYRDSVC        H11CSYRDSVC:W11 CAMS Gardening/Yard Services       Categ
12   H12CSYRDSVC        H12CSYRDSVC:W12 CAMS Gardening/Yard Services       Categ
13   H13CSYRDSVC        H13CSYRDSVC:W13 CAMS Gardening/Yard Services       Categ
14   H14CSYRDSVC        H14CSYRDSVC:W14 CAMS Gardening/Yard Services       Categ

6    H6CSHKSUP          H6CSHKSUP:W6 CAMS Housekeeping Supplies            Categ
7    H7CSHKSUP          H7CSHKSUP:W7 CAMS Housekeeping Supplies            Categ
8    H8CSHKSUP          H8CSHKSUP:W8 CAMS Housekeeping Supplies            Categ
9    H9CSHKSUP          H9CSHKSUP:W9 CAMS Housekeeping Supplies            Categ
10   H10CSHKSUP         H10CSHKSUP:W10 CAMS Housekeeping Supplies          Categ
11   H11CSHKSUP         H11CSHKSUP:W11 CAMS Housekeeping Supplies          Categ
12   H12CSHKSUP         H12CSHKSUP:W12 CAMS Housekeeping Supplies          Categ
13   H13CSHKSUP         H13CSHKSUP:W13 CAMS Housekeeping Supplies          Categ
14   H14CSHKSUP         H14CSHKSUP:W14 CAMS Housekeeping Supplies          Categ

6    H6CSHKSVC          H6CSHKSVC:W6 CAMS Housekeeping Services            Categ
7    H7CSHKSVC          H7CSHKSVC:W7 CAMS Housekeeping Services            Categ
8    H8CSHKSVC          H8CSHKSVC:W8 CAMS Housekeeping Services            Categ
9    H9CSHKSVC          H9CSHKSVC:W9 CAMS Housekeeping Services            Categ
10   H10CSHKSVC         H10CSHKSVC:W10 CAMS Housekeeping Services          Categ
11   H11CSHKSVC         H11CSHKSVC:W11 CAMS Housekeeping Services          Categ
12   H12CSHKSVC         H12CSHKSVC:W12 CAMS Housekeeping Services          Categ
13   H13CSHKSVC         H13CSHKSVC:W13 CAMS Housekeeping Services          Categ
14   H14CSHKSVC         H14CSHKSVC:W14 CAMS Housekeeping Services          Categ
```

Descriptive Statistics

```
Variable             N       Mean     Std Dev    Minimum    Maximum

H5CSNDUR           3789   20143.04   17515.11       0.0    245000.0
H6CSNDUR           3224   23450.21   19354.97       0.0    213224.0
H7CSNDUR           3832   21630.60   17207.61       0.0    200645.0
```

H8CSNDUR	3704	22517.38	17461.54	0.0	150420.0
H9CSNDUR	3550	21974.56	16432.09	0.0	159875.0
H10CSNDUR	4319	22326.14	17539.23	0.0	146642.0
H11CSNDUR	4017	22583.90	18616.46	0.0	215870.0
H12CSNDUR	3689	23746.24	19883.16	0.0	187028.0
H13CSNDUR	3454	24659.28	21491.04	0.0	192310.0
H14CSNDUR	3264	25253.91	21618.85	0.0	183101.0
H5CSNDURF	3789	0.32	0.46	0.0	1.0
H6CSNDURF	3224	0.32	0.47	0.0	1.0
H7CSNDURF	3832	0.33	0.47	0.0	1.0
H8CSNDURF	3704	0.31	0.46	0.0	1.0
H9CSNDURF	3550	0.31	0.46	0.0	1.0
H10CSNDURF	4319	0.29	0.46	0.0	1.0
H11CSNDURF	4017	0.30	0.46	0.0	1.0
H12CSNDURF	3689	0.28	0.45	0.0	1.0
H13CSNDURF	3454	0.28	0.45	0.0	1.0
H14CSNDURF	3264	0.29	0.45	0.0	1.0
H5CSCASHGIFT	3790	2113.28	7714.05	0.0	187704.0
H6CSCASHGIFT	3225	2049.30	7159.57	0.0	120000.0
H7CSCASHGIFT	3835	1651.15	4930.41	0.0	67000.0
H8CSCASHGIFT	3704	1629.86	4855.91	0.0	90000.0
H9CSCASHGIFT	3550	1555.80	4789.69	0.0	96000.0
H10CSCASHGIFT	4320	1390.65	4290.49	0.0	65000.0
H11CSCASHGIFT	4018	1427.89	4762.56	0.0	75000.0
H12CSCASHGIFT	3689	1540.48	5312.30	0.0	100000.0
H13CSCASHGIFT	3454	1620.05	5533.82	0.0	84000.0
H14CSCASHGIFT	3264	1553.34	5529.54	0.0	95000.0
H5CSCLOTH	3790	1181.86	2265.24	0.0	31284.0
H6CSCLOTH	3225	1039.49	2002.77	0.0	30000.0
H7CSCLOTH	3832	799.58	1504.60	0.0	24000.0
H8CSCLOTH	3706	790.81	1462.71	0.0	24000.0
H9CSCLOTH	3551	640.69	1059.64	0.0	15000.0
H10CSCLOTH	4319	703.07	1234.13	0.0	15000.0
H11CSCLOTH	4017	724.62	1372.49	0.0	24000.0
H12CSCLOTH	3689	770.52	1571.02	0.0	24000.0
H13CSCLOTH	3455	722.66	1324.36	0.0	20000.0
H14CSCLOTH	3265	767.92	1353.56	0.0	18000.0
H5CSCONTS	3790	1545.84	4575.35	0.0	104280.0
H6CSCONTS	3225	1539.74	3715.49	0.0	60000.0
H7CSCONTS	3836	1310.97	2594.85	0.0	30000.0
H8CSCONTS	3705	1346.74	2700.51	0.0	31000.0
H9CSCONTS	3550	1339.90	2715.37	0.0	35600.0
H10CSCONTS	4319	1254.65	2718.58	0.0	32000.0
H11CSCONTS	4018	1205.53	2536.94	0.0	26000.0
H12CSCONTS	3689	1287.61	2766.31	0.0	30000.0
H13CSCONTS	3454	1397.63	3167.79	0.0	58000.0
H14CSCONTS	3264	1403.43	3372.71	0.0	50000.0
H5CSDINOUT	3790	1329.24	1812.87	0.0	18249.0
H6CSDINOUT	3225	1698.29	2605.00	0.0	36000.0
H7CSDINOUT	3833	1532.17	2437.66	0.0	47688.0
H8CSDINOUT	3704	1588.11	2490.52	0.0	30000.0
H9CSDINOUT	3551	1363.60	1907.87	0.0	16800.0
H10CSDINOUT	4321	1518.08	2276.50	0.0	23463.0
H11CSDINOUT	4018	1568.64	2385.51	0.0	35977.0

H12CSDINOUT	3689	1741.57	2890.85	0.0	54000.0
H13CSDINOUT	3454	1814.79	2821.24	0.0	31284.0
H14CSDINOUT	3265	1932.84	2909.76	0.0	35640.0
H5CSDRUGS	3792	1090.17	1915.12	0.0	29400.0
H6CSDRUGS	3226	1196.38	2236.62	0.0	36000.0
H7CSDRUGS	3832	1051.56	1841.11	0.0	24000.0
H8CSDRUGS	3704	890.18	1448.46	0.0	24000.0
H9CSDRUGS	3550	883.61	1531.47	0.0	21600.0
H10CSDRUGS	4319	783.31	1477.26	0.0	24000.0
H11CSDRUGS	4019	687.50	1063.98	0.0	15000.0
H12CSDRUGS	3689	736.67	1543.14	0.0	33600.0
H13CSDRUGS	3455	669.35	1303.92	0.0	19200.0
H14CSDRUGS	3264	737.75	1882.58	0.0	36000.0
H5CSELECTRIC	3796	1097.37	1027.77	0.0	14400.0
H6CSELECTRIC	3224	1748.32	3161.11	0.0	36000.0
H7CSELECTRIC	3832	1320.64	1734.89	0.0	28800.0
H8CSELECTRIC	3705	1623.03	2346.04	0.0	28800.0
H9CSELECTRIC	3552	1726.73	2883.83	0.0	38448.0
H10CSELECTRIC	4320	1901.36	3242.41	0.0	43200.0
H11CSELECTRIC	4017	1902.64	3272.01	0.0	43200.0
H12CSELECTRIC	3689	1886.29	2916.51	0.0	43200.0
H13CSELECTRIC	3456	1962.95	3447.16	0.0	50580.0
H14CSELECTRIC	3265	2024.92	3323.37	0.0	36000.0
H5CSFDBEV	3790	3593.03	3154.87	0.0	31284.0
H6CSFDBEV	3225	3937.17	3549.92	0.0	48000.0
H7CSFDBEV	3833	3837.31	3768.66	0.0	84000.0
H8CSFDBEV	3704	3901.83	3574.78	0.0	57600.0
H9CSFDBEV	3551	3872.11	3154.66	0.0	28800.0
H10CSFDBEV	4322	4119.13	3421.10	0.0	31284.0
H11CSFDBEV	4019	4158.33	3634.64	0.0	40000.0
H12CSFDBEV	3689	4276.79	3956.19	0.0	41712.0
H13CSFDBEV	3456	4433.34	4414.92	0.0	60000.0
H14CSFDBEV	3266	4446.77	4365.47	0.0	57354.0
H5CSHEAT	3792	687.81	996.84	0.0	16200.0
H6CSHEAT	3224	1167.62	2483.55	0.0	26400.0
H7CSHEAT	3832	923.86	1853.66	0.0	30000.0
H8CSHEAT	3705	1090.65	2386.78	0.0	30000.0
H9CSHEAT	3551	1031.78	1938.86	0.0	21600.0
H10CSHEAT	4320	1030.35	2585.14	0.0	43764.0
H11CSHEAT	4017	928.80	2254.13	0.0	31200.0
H12CSHEAT	3689	1000.31	2734.16	0.0	45360.0
H13CSHEAT	3455	848.37	2338.92	0.0	36000.0
H14CSHEAT	3264	953.52	2503.37	0.0	36000.0
H5CSHLTHINS	3791	1775.92	3149.93	0.0	48000.0
H6CSHLTHINS	3225	1684.91	2037.38	0.0	15000.0
H7CSHLTHINS	3832	1696.47	2121.41	0.0	16300.0
H8CSHLTHINS	3705	1810.36	2350.58	0.0	18271.0
H9CSHLTHINS	3552	1968.32	2548.21	0.0	20000.0
H10CSHLTHINS	4319	1839.70	2635.71	0.0	24000.0
H11CSHLTHINS	4019	1841.00	2661.92	0.0	25000.0
H12CSHLTHINS	3690	1849.74	2669.25	0.0	26400.0
H13CSHLTHINS	3455	1894.77	2795.31	0.0	24036.0
H14CSHLTHINS	3264	1881.61	2892.95	0.0	26000.0

H5CSHLTHSVC	3791	1089.92	3201.36	0.0	60000.0
H6CSHLTHSVC	3224	1220.19	3536.22	0.0	60000.0
H7CSHLTHSVC	3833	1113.64	3143.66	0.0	50000.0
H8CSHLTHSVC	3704	1118.10	3380.11	0.0	72000.0
H9CSHLTHSVC	3550	1221.43	3872.07	0.0	64284.0
H10CSHLTHSVC	4319	1095.72	3091.10	0.0	55200.0
H11CSHLTHSVC	4020	1044.99	2786.65	0.0	48000.0
H12CSHLTHSVC	3689	1129.43	3367.70	0.0	60000.0
H13CSHLTHSVC	3454	1211.40	3954.14	0.0	75100.0
H14CSHLTHSVC	3264	1121.85	3298.94	0.0	60000.0
H5CSMEDSUP	3791	240.32	796.58	0.0	15642.0
H6CSMEDSUP	3224	231.19	690.76	0.0	12000.0
H7CSMEDSUP	3832	210.84	610.44	0.0	10260.0
H8CSMEDSUP	3704	226.77	741.94	0.0	14400.0
H9CSMEDSUP	3550	195.58	510.02	0.0	6000.0
H10CSMEDSUP	4319	185.28	545.85	0.0	8324.0
H11CSMEDSUP	4021	215.68	662.98	0.0	12000.0
H12CSMEDSUP	3689	200.72	607.22	0.0	9600.0
H13CSMEDSUP	3455	172.32	478.08	0.0	7000.0
H14CSMEDSUP	3264	205.82	697.35	0.0	12000.0
H5CSTELECOM	3794	966.54	1143.42	0.0	24840.0
H6CSTELECOM	3224	1630.05	2892.07	0.0	36000.0
H7CSTELECOM	3832	1322.10	1974.73	0.0	26400.0
H8CSTELECOM	3705	1595.71	2648.13	0.0	28800.0
H9CSTELECOM	3551	1669.90	2515.66	0.0	30000.0
H10CSTELECOM	4321	1880.39	3077.29	0.0	36000.0
H11CSTELECOM	4017	2129.34	3489.12	0.0	42000.0
H12CSTELECOM	3689	2202.25	3787.41	0.0	49104.0
H13CSTELECOM	3456	2553.05	5007.48	0.0	91200.0
H14CSTELECOM	3264	2616.30	4640.51	0.0	52272.0
H5CSTICKET	3792	172.57	537.55	0.0	8000.0
H6CSTICKET	3224	166.41	482.82	0.0	6720.0
H7CSTICKET	3835	156.88	427.70	0.0	6000.0
H8CSTICKET	3705	155.29	471.25	0.0	8000.0
H9CSTICKET	3550	140.14	415.90	0.0	6000.0
H10CSTICKET	4320	147.07	395.27	0.0	7000.0
H11CSTICKET	4018	146.21	436.74	0.0	7000.0
H12CSTICKET	3690	163.91	526.08	0.0	8400.0
H13CSTICKET	3455	163.83	447.88	0.0	5000.0
H14CSTICKET	3265	174.31	542.88	0.0	10000.0
H5CSTRIPVAC	3791	1859.48	4802.32	0.0	78210.0
H6CSTRIPVAC	3224	1365.16	2349.30	0.0	25000.0
H7CSTRIPVAC	3834	1451.32	2682.98	0.0	30000.0
H8CSTRIPVAC	3705	1555.83	2817.17	0.0	25000.0
H9CSTRIPVAC	3553	1393.69	2716.05	0.0	30000.0
H10CSTRIPVAC	4321	1359.59	2708.14	0.0	30000.0
H11CSTRIPVAC	4018	1380.89	2833.83	0.0	29550.0
H12CSTRIPVAC	3691	1542.27	3263.23	0.0	35000.0
H13CSTRIPVAC	3455	1689.12	3695.71	0.0	50000.0
H14CSTRIPVAC	3265	1767.20	3641.06	0.0	40000.0
H5CSWATER	3795	332.84	506.03	0.0	9480.0
H6CSWATER	3224	534.93	1227.06	0.0	14400.0
H7CSWATER	3833	427.33	822.50	0.0	14400.0
H8CSWATER	3704	452.95	829.20	0.0	11520.0

H9CSWATER	3552	533.90	1175.52	0.0	18000.0
H10CSWATER	4320	563.37	1176.54	0.0	18000.0
H11CSWATER	4017	624.98	1381.58	0.0	20400.0
H12CSWATER	3689	621.14	1256.71	0.0	18000.0
H13CSWATER	3455	670.82	1434.50	0.0	21600.0
H14CSWATER	3265	732.65	1623.42	0.0	28800.0
H6CSPRSCARE	3225	563.24	823.17	0.0	10800.0
H7CSPRSCARE	3832	490.18	680.75	0.0	7800.0
H8CSPRSCARE	3705	519.23	821.42	0.0	15600.0
H9CSPRSCARE	3550	493.87	759.94	0.0	12000.0
H10CSPRSCARE	4319	503.79	643.86	0.0	7200.0
H11CSPRSCARE	4017	521.91	769.59	0.0	12000.0
H12CSPRSCARE	3689	568.73	815.69	0.0	14400.0
H13CSPRSCARE	3456	589.45	866.11	0.0	12000.0
H14CSPRSCARE	3265	641.40	1021.57	0.0	18000.0
H7CSFURNISH	3833	626.27	1746.79	0.0	25000.0
H8CSFURNISH	3704	559.59	1524.75	0.0	23400.0
H9CSFURNISH	3551	394.98	1065.61	0.0	15000.0
H10CSFURNISH	4319	392.45	1097.85	0.0	13250.0
H11CSFURNISH	4018	394.90	1209.77	0.0	17750.0
H12CSFURNISH	3689	411.38	1245.87	0.0	20000.0
H13CSFURNISH	3458	454.58	1409.69	0.0	20000.0
H14CSFURNISH	3264	443.33	1251.47	0.0	15000.0
H5CSHOBSPORT	3791	399.81	1381.45	0.0	26070.0
H6CSHOBBY	3224	265.47	718.73	0.0	10000.0
H7CSHOBBY	3834	261.72	703.10	0.0	15000.0
H8CSHOBBY	3705	233.15	605.85	0.0	10000.0
H9CSHOBBY	3550	201.87	526.81	0.0	9840.0
H10CSHOBBY	4319	216.68	554.25	0.0	9000.0
H11CSHOBBY	4018	200.36	573.76	0.0	10800.0
H12CSHOBBY	3691	195.93	580.37	0.0	8400.0
H13CSHOBBY	3454	211.89	639.70	0.0	11016.0
H14CSHOBBY	3266	204.71	565.41	0.0	7200.0
H6CSSPORT	3224	163.31	915.67	0.0	18000.0
H7CSSPORT	3836	170.85	776.85	0.0	15000.0
H8CSSPORT	3706	150.59	634.83	0.0	15500.0
H9CSSPORT	3550	139.53	582.60	0.0	10000.0
H10CSSPORT	4320	163.52	776.43	0.0	16800.0
H11CSSPORT	4018	149.22	655.73	0.0	12000.0
H12CSSPORT	3692	143.36	621.80	0.0	10800.0
H13CSSPORT	3455	169.45	743.38	0.0	14400.0
H14CSSPORT	3265	185.95	862.49	0.0	20000.0
H5CSHKYRDSUP	3789	672.10	1431.42	0.0	26070.0
H6CSYRDSUP	3224	284.79	721.07	0.0	12372.0
H7CSYRDSUP	3832	242.20	658.65	0.0	12000.0
H8CSYRDSUP	3704	239.79	594.82	0.0	10702.0
H9CSYRDSUP	3550	246.94	541.51	0.0	8400.0
H10CSYRDSUP	4319	251.90	570.05	0.0	10800.0
H11CSYRDSUP	4017	245.10	600.13	0.0	12000.0
H12CSYRDSUP	3690	256.85	610.18	0.0	10800.0
H13CSYRDSUP	3454	260.12	622.00	0.0	8400.0
H14CSYRDSUP	3265	238.60	545.19	0.0	7500.0

H6CSYRDSVC	3224	330.71	982.61	0.0	13200.0
H7CSYRDSVC	3832	325.15	1092.71	0.0	24000.0
H8CSYRDSVC	3705	311.69	957.07	0.0	15000.0
H9CSYRDSVC	3550	292.45	727.85	0.0	9500.0
H10CSYRDSVC	4319	290.73	779.95	0.0	12000.0
H11CSYRDSVC	4018	343.86	942.26	0.0	14400.0
H12CSYRDSVC	3689	428.16	1544.78	0.0	24000.0
H13CSYRDSVC	3454	352.12	1086.15	0.0	18000.0
H14CSYRDSVC	3266	373.99	1061.17	0.0	14400.0
H6CSHKSUP	3224	305.07	421.00	0.0	7200.0
H7CSHKSUP	3833	344.98	576.92	0.0	12000.0
H8CSHKSUP	3705	347.91	495.30	0.0	9576.0
H9CSHKSUP	3553	348.40	487.51	0.0	7200.0
H10CSHKSUP	4319	402.24	564.83	0.0	9600.0
H11CSHKSUP	4017	392.80	536.19	0.0	9600.0
H12CSHKSUP	3689	405.30	529.46	0.0	7200.0
H13CSHKSUP	3456	424.29	560.45	0.0	8400.0
H14CSHKSUP	3265	452.36	631.50	0.0	9600.0
H6CSHKSVC	3224	335.09	899.37	0.0	13824.0
H7CSHKSVC	3832	370.42	1082.88	0.0	18120.0
H8CSHKSVC	3705	379.22	1047.26	0.0	16800.0
H9CSHKSVC	3550	324.25	940.22	0.0	18000.0
H10CSHKSVC	4319	332.93	912.19	0.0	14400.0
H11CSHKSVC	4017	350.86	1075.65	0.0	18000.0
H12CSHKSVC	3690	387.01	1227.78	0.0	26400.0
H13CSHKSVC	3454	374.10	1128.86	0.0	17280.0
H14CSHKSVC	3265	391.42	1172.44	0.0	18600.0

Categorical Variable Codes

HwCSNDURF: CAMSFlag Total Nondurables Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						77	30	47	34	37	51
0. No imputation						2594	2186	2549	2573	2454	3045
1. Regression imputation						1195	1038	1283	1131	1096	1274

Value		w11	w12	w13	w14
.T=Resp <10 cat		50	48	52	59
0. No imputation		2815	2668	2504	2323
1. Regression imputation		1202	1021	950	941

General Comments

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in "1.11 Cleaning and Imputation of Spending Variables." The categories included in total spending differ across waves due to changes in the survey items. These differences are discussed in more detail in the "1.6 Difference

Across Waves" section earlier in this document.

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 14 which asks about 2019 spending.

The spending components are summed to create the total spending measures. A flag indicates whether any of its components were imputed. CAMS spending measures are reported at the household level. The CAMS Respondent reports spending for all members of his/her household.

How Constructed

HwCSNDUR is the sum of all of the nondurable spending in the household.

The spending categories vary by wave, but in general include: gifts (HwCSCASHGIFT), clothing (HwCSCLOTH), charitable contributions (HwCSCONTS), dining out (HwCSDINOUT), medications (HwCSDRUGS), electric bills (HwCSELECTRIC), food and beverages (HwCSFDBEV), heating bills (HwCSHEAT), health insurance (HwCSHLTHINS) and services (HwCSHLTHSVC), medical supplies (HwCSMEDSUP), telecommunications (HwCSTELECOM), tickets (HwCSTICKET), trips and vacations (HwCSTRIPVAC), water bills (HwCSWATER), personal care items (HwCSPRSCARE), furnishings (HwCSFURNISH), hobbies (HwCSHOBBY) and sports (HwCSHOBSPORT), housekeeping services (HwCSHKSVC) and supplies (HwCSHKSUP), and yard services (HwCSYRDSVC) and supplies (HwCSYRDSUP). In earlier waves, these categories were often combined such as HwCSHKYRDSUP which combined housekeeping and yard supplies and HwCSHOBSPORT which combined hobbies and sports. Please see "CAMS Variables Used" below and "1.6 Differences Across Waves" for details of which nondurable categories are available in each wave.

HwCSNDURF is a flag that indicates whether any nondurable components are imputed. Please see section "1.11 Cleaning and Imputation of Spending Variables" for more information on imputation methods and section "2.17 Category-level Flags" for information on the category-level imputation flags.

Cross Wave Differences in Original CAMS Data

The CAMS 2001 and CAMS 2003 surveys asked fewer nondurable spending categories than in the later waves (please see "1.6 Differences Across Waves").

CAMS Variables Used

```
CAMS 2001:
    B11A_01          B11A. ELECTRICITY – PER
    B11_01           B11. ELECTRICITY
    B12A_01          B12A. WATER – PER
    B12_01           B12. WATER
    B13A_01          B13A. HEAT – PER
    B13_01           B13. HEAT
    B14A_01          B14A. PHONE/CABLE – PER
    B14_01           B14. PHONE/CABLE/INTERNET
    B17A_01          B17A. HEALTH INSUR – PER
    B17_01           B17. HEALTH INSURANCE
    B18A_01          B18A. HOUSE/YARD – PER
    B18_01           B18.  HOUSE/YARD SUPPLIES
    B20A_01          B20. FOOD/DRINK GROC – PER
    B20_01           B20. FOOD/DRINK GROCERY
    B21A_01          B21A. DINING OUT – PER
    B21_01           B21. DINING OUT
```

```
    B22A_01          B22A. CLOTHING – PER
    B22_01           B22. CLOTHING
    B25A_01          B25A. DRUGS – PER
    B25_01           B25. DRUGS
    B26A_01          B26A. HEALTH SERVICES – PER
    B26_01           B26. HEALTH SERVICES
    B27A_01          B27A. MED SUPPLIES – PER
    B27_01           B27. MEDICAL SUPPLIES
    B28A_01          B28A. VACATIONS – PER
    B28_01           B28. VACATIONS
    B29A_01          B29A. TICKETS – PER
    B29_01           B29. TICKETS
    B30A_01          B30A. HOBBIES – PER
    B30_01           B30. HOBBIES
    B31A_01          B31A. CONTRIBUTIONS – PER
    B31_01           B31. CONTRIBUTIONS
    B32A_01          B32A. GIFTS – PER
    B32_01           B32. GIFTS
CAMS 2003:
    B15A_03          B15A. ELECTRICITY – PER
    B15_03           B15. ELECTRICITY
    B16A_03          B16A. WATER – PER
    B16_03           B16. WATER
    B17A_03          B17A. HEAT – PER
    B17_03           B17. HEAT
    B18A_03          B18A. PHONE/CABLE – PER
    B18_03           B18. PHONE/CABLE/INTERNET
    B20A_03          B20A. HOUSEKEEPING SUPPLIES – PER
    B20_03           B20. HOUSEKEEPING SUPPLIES
    B21A_03          B21A. HOUSEKEEPING SERVICES – PER
    B21_03           B21. HOUSEKEEPING SERVICES
    B22A_03          B22A. GARDEN/YARD SUPPLIES – PER
    B22_03           B22.GARDENING/YARD SUPPLIES
    B23A_03          B23A. GARDEN/YARD SERVICES – PER
    B23_03           B23. GARDEN/YARD SERVICES
    B26A_03          B26A. CLOTHING – PER
    B26_03           B26. CLOTHING AND APPAREL
    B27A_03          B27A. PERSONAL CARE PRODUCTS/SERVICES – PER
    B27_03           B27. PERSONAL CARE PRODUCTS/SERVICES
    B28A_03          B28A. DRUGS – PER
    B28_03           B28. DRUGS
    B29A_03          B29A. HEALTH SERVICES – PER
    B29_03           B29. HEALTH SERVICES
    B30A_03          B30A. MED SUPPLIES – PER
    B30_03           B30. MEDICAL SUPPLIES
    B31A_03          B31A. TICKETS – PER
    B31_03           B31. TICKETS
    B32A_03          B32A. SPORTS EQUIPMENT – PER
    B32_03           B32. SPORTS EQUIPMENT
    B33A_03          B33A. HOBBIES/LEISURE EQUIPMENT – PER
    B33_03           B33. HOBBIES/LEISURE EQUIPMENT
    B34A_03          B34A. CONTRIBUTIONS – PER
    B34_03           B34. CONTRIBUTIONS
    B35A_03          B35A. GIFTS – PER
    B35_03           B35. GIFTS
    B36A_03          B36. FOOD/DRINK GROC – PER
    B36_03           B36. FOOD/DRINK GROCERY
    B37A_03          B37A. DINING OUT – PER
    B37_03           B37. DINING OUT
```

```
CAMS2003-2019:
    B11_YR          B11. HEALTH INSURANCE
    B12_YR          B12. TRIPS AND VACATIONS
CAMS2005-2019:
    B15_YR          B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
    B16_YR          B16. CONTRIBUTIONS
    B17_YR          B17. GIFTS
    B20A_YR         B20A. ELECTRICITY - PER
    B20_YR          B20. ELECTRICITY
    B21A_YR         B21A. WATER - PER
    B21_YR          B21. WATER
    B22A_YR         B22A. HEAT - PER
    B22_YR          B22. HEAT
    B23A_YR         B23A. PHONE/CABLE - PER
    B23_YR          B23. PHONE/CABLE/INTERNET
    B25A_YR         B25A. HOUSEKEEPING SUPPLIES - PER
    B25_YR          B25. HOUSEKEEPING SUPPLIES
    B26A_YR         B26A. HOUSEKEEPING SERVICES - PER
    B26_YR          B26. HOUSEKEEPING SERVICES
    B27A_YR         B27A. GARDEN/YARD SUPPLIES - PER
    B27_YR          B27. GARDENING/YARD SUPPLIES
    B28A_YR         B28A. GARDEN/YARD SERVICES - PER
    B28_YR          B28. GARDEN/YARD SERVICES
    B29A_YR         B29A. CLOTHING - PER
    B29_YR          B29. CLOTHING AND APPAREL
    B30A_YR         B30A. PERSONAL CARE PROD/SERVICES - PER
    B30_YR          B30. PERSONAL CARE PRODUCTS/SERVICES
    B31A_YR         B31A. DRUGS OOP - PER
    B31_YR          B31. DRUGS OOP
    B32A_YR         B32A. HEALTH SERVICES - PER
    B32_YR          B32. HEALTH SERVICES
    B33A_YR         B33A. MED SUPPLIES - PER
    B33_YR          B33. MEDICAL SUPPLIES
    B34A_YR         B34A. TICKETS - PER
    B34_YR          B34. TICKETS
    B35A_YR         B35A. SPORTS EQUIPMENT - PER
    B35_YR          B35. SPORTS EQUIPMENT
    B36A_YR         B36A. HOBBIES/LEISURE EQUIPMENT - PER
    B36_YR          B36. HOBBIES/LEISURE EQUIPMENT
    B37A_YR         B37A. FOOD/DRINK GROC - PER
    B37_YR          B37. FOOD/DRINK GROCERY
    B38A_YR         B38A. DINING OUT - PER
    B38_YR          B38. DINING OUT
```

2.11 Total Transportation Spending

Wave	Variable	Label	Type
5	H5CSTRANS	H5CSTRANS:W5 CAMS Total Transportation Spending	Categ
6	H6CSTRANS	H6CSTRANS:W6 CAMS Total Transportation Spending	Categ
7	H7CSTRANS	H7CSTRANS:W7 CAMS Total Transportation Spending	Categ
8	H8CSTRANS	H8CSTRANS:W8 CAMS Total Transportation Spending	Categ
9	H9CSTRANS	H9CSTRANS:W9 CAMS Total Transportation Spending	Categ
10	H10CSTRANS	H10CSTRANS:W10 CAMS Total Transportation Spending	Categ
11	H11CSTRANS	H11CSTRANS:W11 CAMS Total Transportation Spending	Categ
12	H12CSTRANS	H12CSTRANS:W12 CAMS Total Transportation Spending	Categ
13	H13CSTRANS	H13CSTRANS:W13 CAMS Total Transportation Spending	Categ
14	H14CSTRANS	H14CSTRANS:W14 CAMS Total Transportation Spending	Categ
5	H5CSTRANSF	H5CSTRANSF:W5 CAMSFlag Total Transportation Spending	Categ
6	H6CSTRANSF	H6CSTRANSF:W6 CAMSFlag Total Transportation Spending	Categ
7	H7CSTRANSF	H7CSTRANSF:W7 CAMSFlag Total Transportation Spending	Categ
8	H8CSTRANSF	H8CSTRANSF:W8 CAMSFlag Total Transportation Spending	Categ
9	H9CSTRANSF	H9CSTRANSF:W9 CAMSFlag Total Transportation Spending	Categ
10	H10CSTRANSF	H10CSTRANSF:W10 CAMSFlag Total Transportation Spending	Categ
11	H11CSTRANSF	H11CSTRANSF:W11 CAMSFlag Total Transportation Spending	Categ
12	H12CSTRANSF	H12CSTRANSF:W12 CAMSFlag Total Transportation Spending	Categ
13	H13CSTRANSF	H13CSTRANSF:W13 CAMSFlag Total Transportation Spending	Categ
14	H14CSTRANSF	H14CSTRANSF:W14 CAMSFlag Total Transportation Spending	Categ
5	H5CSCARALL	H5CSCARALL:W5 CAMS Total Car Purchases	Categ
6	H6CSCARALL	H6CSCARALL:W6 CAMS Total Car Purchases	Categ
7	H7CSCARALL	H7CSCARALL:W7 CAMS Total Car Purchases	Categ
8	H8CSCARALL	H8CSCARALL:W8 CAMS Total Car Purchases	Categ
9	H9CSCARALL	H9CSCARALL:W9 CAMS Total Car Purchases	Categ
10	H10CSCARALL	H10CSCARALL:W10 CAMS Total Car Purchases	Categ
11	H11CSCARALL	H11CSCARALL:W11 CAMS Total Car Purchases	Categ
12	H12CSCARALL	H12CSCARALL:W12 CAMS Total Car Purchases	Categ
13	H13CSCARALL	H13CSCARALL:W13 CAMS Total Car Purchases	Categ
14	H14CSCARALL	H14CSCARALL:W14 CAMS Total Car Purchases	Categ
5	H5CSCARINS	H5CSCARINS:W5 CAMS Car Insurance	Categ
6	H6CSCARINS	H6CSCARINS:W6 CAMS Car Insurance	Categ
7	H7CSCARINS	H7CSCARINS:W7 CAMS Car Insurance	Categ
8	H8CSCARINS	H8CSCARINS:W8 CAMS Car Insurance	Categ
9	H9CSCARINS	H9CSCARINS:W9 CAMS Car Insurance	Categ
10	H10CSCARINS	H10CSCARINS:W10 CAMS Car Insurance	Categ
11	H11CSCARINS	H11CSCARINS:W11 CAMS Car Insurance	Categ
12	H12CSCARINS	H12CSCARINS:W12 CAMS Car Insurance	Categ
13	H13CSCARINS	H13CSCARINS:W13 CAMS Car Insurance	Categ
14	H14CSCARINS	H14CSCARINS:W14 CAMS Car Insurance	Categ
5	H5CSCARMNT	H5CSCARMNT:W5 CAMS Car Maintenance	Categ
6	H6CSCARMNT	H6CSCARMNT:W6 CAMS Car Maintenance	Categ
7	H7CSCARMNT	H7CSCARMNT:W7 CAMS Car Maintenance	Categ
8	H8CSCARMNT	H8CSCARMNT:W8 CAMS Car Maintenance	Categ
9	H9CSCARMNT	H9CSCARMNT:W9 CAMS Car Maintenance	Categ
10	H10CSCARMNT	H10CSCARMNT:W10 CAMS Car Maintenance	Categ
11	H11CSCARMNT	H11CSCARMNT:W11 CAMS Car Maintenance	Categ
12	H12CSCARMNT	H12CSCARMNT:W12 CAMS Car Maintenance	Categ
13	H13CSCARMNT	H13CSCARMNT:W13 CAMS Car Maintenance	Categ
14	H14CSCARMNT	H14CSCARMNT:W14 CAMS Car Maintenance	Categ
5	H5CSCARFIN	H5CSCARFIN:W5 CAMS Car Interest Payments	Categ
6	H6CSCARPAY	H6CSCARPAY:W6 CAMS Car Interest + Principal Payments	Categ
7	H7CSCARPAY	H7CSCARPAY:W7 CAMS Car Interest + Principal Payments	Categ
8	H8CSCARPAY	H8CSCARPAY:W8 CAMS Car Interest + Principal Payments	Categ
9	H9CSCARPAY	H9CSCARPAY:W9 CAMS Car Interest + Principal Payments	Categ
10	H10CSCARPAY	H10CSCARPAY:W10 CAMS Car Interest + Principal Payments	Categ
11	H11CSCARPAY	H11CSCARPAY:W11 CAMS Car Interest + Principal Payments	Categ
12	H12CSCARPAY	H12CSCARPAY:W12 CAMS Car Interest + Principal Payments	Categ
13	H13CSCARPAY	H13CSCARPAY:W13 CAMS Car Interest + Principal Payments	Categ
14	H14CSCARPAY	H14CSCARPAY:W14 CAMS Car Interest + Principal Payments	Categ

```
 5     H5CSGAS               H5CSGAS:W5 CAMS Gasoline                                        Categ
 6     H6CSGAS               H6CSGAS:W6 CAMS Gasoline                                        Categ
 7     H7CSGAS               H7CSGAS:W7 CAMS Gasoline                                        Categ
 8     H8CSGAS               H8CSGAS:W8 CAMS Gasoline                                        Categ
 9     H9CSGAS               H9CSGAS:W9 CAMS Gasoline                                        Categ
10     H10CSGAS              H10CSGAS:W10 CAMS Gasoline                                      Categ
11     H11CSGAS              H11CSGAS:W11 CAMS Gasoline                                      Categ
12     H12CSGAS              H12CSGAS:W12 CAMS Gasoline                                      Categ
13     H13CSGAS              H13CSGAS:W13 CAMS Gasoline                                      Categ
14     H14CSGAS              H14CSGAS:W14 CAMS Gasoline                                      Categ
```

Descriptive Statistics

```
Variable              N        Mean     Std Dev    Minimum     Maximum

H5CSTRANS           3789     7958.77    11484.04       0.0     83664.0
H6CSTRANS           3224     8162.14    12421.97       0.0    112960.0
H7CSTRANS           3832     8875.48    13206.49       0.0    135957.0
H8CSTRANS           3704     8087.67    11544.43       0.0     98386.0
H9CSTRANS           3550     6919.06     9803.16       0.0     83973.0
H10CSTRANS          4319     7841.01    11242.15       0.0     98344.0
H11CSTRANS          4017     8204.01    12444.57       0.0    132211.0
H12CSTRANS          3689     8193.89    12814.55       0.0     98807.0
H13CSTRANS          3454     8480.24    13108.49       0.0     98889.0
H14CSTRANS          3264     9043.71    14118.51       0.0    126551.0

H5CSTRANSF          3789        0.26        0.55       0.0         3.0
H6CSTRANSF          3224        0.25        0.58       0.0         3.0
H7CSTRANSF          3832        0.27        0.61       0.0         3.0
H8CSTRANSF          3704        0.22        0.55       0.0         3.0
H9CSTRANSF          3550        0.20        0.51       0.0         3.0
H10CSTRANSF         4319        0.20        0.52       0.0         3.0
H11CSTRANSF         4017        0.21        0.53       0.0         3.0
H12CSTRANSF         3689        0.18        0.49       0.0         3.0
H13CSTRANSF         3454        0.19        0.50       0.0         3.0
H14CSTRANSF         3264        0.19        0.50       0.0         3.0

H5CSCARALL          3843     3954.47     9618.83       0.0     67000.0
H6CSCARALL          3246     3497.98     9153.39       0.0     74500.0
H7CSCARALL          3863     3911.81    10483.38       0.0    113000.0
H8CSCARALL          3726     3120.27     8703.77       0.0     60039.8
H9CSCARALL          3577     2589.58     7636.78       0.0     68142.8
H10CSCARALL         4350     2796.73     8615.96       0.0     66000.0
H11CSCARALL         4043     3207.05     9504.53       0.0    100000.0
H12CSCARALL         3725     3405.29    10124.00       0.0     79000.0
H13CSCARALL         3486     3427.86    10173.67       0.0     80000.0
H14CSCARALL         3299     3580.66    10916.45       0.0     99093.5

H5CSCARINS          3793     1309.35     2308.26       0.0     30000.0
H6CSCARINS          3224      934.70      749.81       0.0      6500.0
H7CSCARINS          3832     1022.25      963.24       0.0     13101.0
H8CSCARINS          3705      981.75      910.24       0.0     12000.0
H9CSCARINS          3551      983.06      903.71       0.0     12000.0
H10CSCARINS         4319      996.69      896.14       0.0      8400.0
H11CSCARINS         4018     1030.80     1054.93       0.0     14000.0
H12CSCARINS         3690     1051.29     1032.63       0.0     12000.0
H13CSCARINS         3454     1142.85     1147.64       0.0     14400.0
```

```
H14CSCARINS      3266      1241.45     1303.04      0.0      15000.0

H5CSCARMNT       3789      1088.20     3581.71      0.0      75603.0
H6CSCARMNT       3225       489.10      647.65      0.0       5000.0
H7CSCARMNT       3832       530.48      708.81      0.0       7000.0
H8CSCARMNT       3705       531.13      714.35      0.0       7649.0
H9CSCARMNT       3550       546.85      732.90      0.0       5000.0
H10CSCARMNT      4319       570.98      807.04      0.0       7500.0
H11CSCARMNT      4018       548.78      827.56      0.0      10000.0
H12CSCARMNT      3690       569.96      901.31      0.0       9000.0
H13CSCARMNT      3455       580.21      904.58      0.0       8000.0
H14CSCARMNT      3266       592.27      881.72      0.0       7500.0

H5CSCARFIN       3791       535.93     1532.66      0.0      18000.0

H6CSCARPAY       3224      1810.55     5513.99      0.0     100800.0
H7CSCARPAY       3833      1563.66     3293.56      0.0      46296.0
H8CSCARPAY       3706      1614.98     4296.38      0.0      72000.0
H9CSCARPAY       3551      1310.45     2967.71      0.0      43200.0
H10CSCARPAY      4320      1386.53     3480.89      0.0      60000.0
H11CSCARPAY      4018      1491.01     4282.42      0.0      77760.0
H12CSCARPAY      3689      1571.01     3984.47      0.0      60000.0
H13CSCARPAY      3454      1871.40     4575.97      0.0      82800.0
H14CSCARPAY      3264      2074.85     5212.40      0.0      90720.0

H5CSGAS          3789      1033.50     1144.06      0.0      14400.0
H6CSGAS          3224      1406.36     2069.35      0.0      31284.0
H7CSGAS          3833      1824.48     2732.13      0.0      51600.0
H8CSGAS          3704      1828.29     2131.60      0.0      30000.0
H9CSGAS          3552      1480.46     1577.73      0.0      18720.0
H10CSGAS         4321      2069.85     2277.42      0.0      28800.0
H11CSGAS         4019      1909.85     2105.44      0.0      36000.0
H12CSGAS         3689      1569.44     2184.60      0.0      40669.0
H13CSGAS         3456      1439.83     1755.17      0.0      26070.0
H14CSGAS         3265      1534.60     1852.59      0.0      25200.0
```

Categorical Variable Codes

```
                        HwCSTRANSF: CAMSFlag Total Transportation Spending
```

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						77	30	47	34	37	51
0.No imputation						2972	2601	3056	3080	2971	3646
1.Regression imputation onl						700	472	568	461	463	523
2.Imputation to zero only						68	106	146	128	86	102
3.Regression and zero imput						49	45	62	35	30	48

Value		w11	w12	w13	w14
.T=Resp <10 cat		50	48	52	59
0.No imputation		3357	3148	2930	2779
1.Regression imputation onl		518	431	432	395
2.Imputation to zero only		97	80	54	57
3.Regression and zero imput		45	30	38	33

General Comments

Spending measures are reported in nominal dollars. Missing values in car insurance, car maintenance, car payments or car financing, and gasoline are imputed using the method described in "1.11 Cleaning and Imputation of Spending Variables." Missing values in a component of auto purchases are imputed using the method described in "1.12 Imputation of Auto Purchases." There are differences across waves concerning car payments, which are included in total transportation spending, as documented below.

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 14 which asks about 2019 spending.

The transportation spending components are summed to create the total transportation spending measure. CAMS spending measures are reported at the household level. The CAMS Respondent reports spending for all members of his/her household.

How Constructed

HwCSTRANS is the sum of all of the spending in the household on up to three automobile purchases (HwCSCARALL), car insurance (HwCSCARINS), car maintenance (HwCSCARMNT), car payments (HwCSCARPAY) or car financing (HwCSCARFIN), and gasoline (HwCSGAS). If the Respondent does not indicate whether or not their household purchased an automobile, it is assumed that there was no auto purchased and the auto amounts are set to zero. Please see "1.12 Imputation of Auto Purchases" for more details.

HwCSTRANSF is a flag that indicates whether any of the components of transportation spending are imputed. Please see section "1.11 Cleaning and Imputation of Spending Variables" for more information on imputation methods and section "2.17 Category-level Flags" for information on the category-level imputation flags.

Spending on auto purchases is included in the total transportation spending measure, which is a component of the total household spending measure. The CAMS survey only measures purchase price of autos and not the outlay. Measuring the outlay is complicated due to the many financing options for vehicle purchases, including the possibility of trade-ins. Eliciting the details of the transactions is not practical in a paper-and-pencil survey.

Analysts may want to consider adjustments, depending on the purpose of their analyses. To arrive at a pure spending measure the analyst will need to devise a way to remove the saving component (i.e., the principal) contained in the car payments. To enable the analyst to make the correction without having to extract any raw variables from the original CAMS files, we have included "car payments" as separate variables. The analyst can use these (a) to subtract them from RAND HRS CAMS Data File total spending and (b) to compute car payments to be added back into the measures of total spending. Please see "1.7 Spending versus Consumption" for more details. HwCCARALL is the sum of all of the spending in the household on up to three automobile purchases. If the Respondent does not indicate whether or not their household purchased an automobile, it is assumed that there was no auto purchase and the auto amounts are set to zero. When an auto has been purchased but the value is missing, it is imputed using median imputation before the top and bottom five totaled values are winsorized. There are no differences across waves in total auto spending components, but the determination of new versus old auto changes across waves. Please see "1.12 Imputation of Auto Purchases" for more information.

H5CCARFIN is the car interest payment amount from CAMS 2001 and can be subtracted from H5CSTOT. HwCCARPAY is the car interest and principal payment amount and can be subtracted from HwCSTOT for Waves 6 onward.

Cross Wave Differences in Original CAMS Data

The CAMS 2001 survey asked for car interest payment amount (car financing), while later surveys asked for the combined spending on both car interest and principal payments (car payments).

CAMS Variables Used

```
CAMS 2001:
    B15A_01          B15A. AUTO FINANCE - PER
    B15_01           B15. AUTO FINANCE CHRG
    B16A_01          B16A. AUTO INSUR - PER
    B16_01           B16. AUTO INSURANCE
    B1A_3_01         B1A_3. AUTO YEAR - 1
    B1A_4_01         B1A_4. AUTO PRICE - 1
    B1B_3_01         B1B_3. AUTO YEAR - 2
    B1B_4_01         B1B_4. AUTO PRICE - 2
    B1C_3_01         B1C_3. AUTO YEAR - 3
    B1C_4_01         B1C_4. AUTO PRICE - 3
    B23A_01          B23A. GASOLINE - PER
    B23_01           B23. GASOLINE
    B24A_01          B24A. VEHICLE SERVICE - PER
    B24_01           B24. VEHICLE SERVICE
CAMS 2003:
    B19A_03          B19A. CAR PAYMENTS - PER
    B19_03           B19. CAR PAYMENTS INTEREST/PRINCIPAL
    B38A_03          B38A. GASOLINE - PER
    B38_03           B38. GASOLINE
CAMS2001-2019:
    B1_YR            B1. PURCHASE/LEASE AUTO
CAMS2003-2019:
    B10_YR           B10. VEHICLE MAINTENANCE
    B1A3_YR          B1A3. AUTO YEAR - 1
    B1A4_YR          B1A4. AUTO PRICE - 1
    B1A5_YR          B1A5. AUTO/TRUCK NEW OR USED - 1
    B1B3_YR          B1B3. AUTO YEAR - 2
    B1B4_YR          B1B4. AUTO PRICE - 2
    B1B5_YR          B1B5. AUTO/TRUCK NEW OR USED - 2
    B1C3_YR          B1C3. AUTO YEAR - 3
    B1C4_YR          B1C4. AUTO PRICE - 3
```

```
    B1C5_YR          B1C5. AUTO/TRUCK NEW OR USED - 3
    B9_YR            B9. VEHICLE INSURANCE
CAMS2005-2019:
    B24A_YR          B24A. CAR PAYMENTS - PER
    B24_YR           B24. CAR PAYMENTS INTEREST/PRINCIPAL
    B39A_YR          B39A. GASOLINE - PER
    B39_YR           B39. GASOLINE
```

2.12 Total Housing Spending

Wave	Variable	Label	Type
5	H5CSHOUS	H5CSHOUS:W5 CAMS Total Housing Spending	Categ
6	H6CSHOUS	H6CSHOUS:W6 CAMS Total Housing Spending	Categ
7	H7CSHOUS	H7CSHOUS:W7 CAMS Total Housing Spending	Categ
8	H8CSHOUS	H8CSHOUS:W8 CAMS Total Housing Spending	Categ
9	H9CSHOUS	H9CSHOUS:W9 CAMS Total Housing Spending	Categ
10	H10CSHOUS	H10CSHOUS:W10 CAMS Total Housing Spending	Categ
11	H11CSHOUS	H11CSHOUS:W11 CAMS Total Housing Spending	Categ
12	H12CSHOUS	H12CSHOUS:W12 CAMS Total Housing Spending	Categ
13	H13CSHOUS	H13CSHOUS:W13 CAMS Total Housing Spending	Categ
14	H14CSHOUS	H14CSHOUS:W14 CAMS Total Housing Spending	Categ
5	H5CSHOUSF	H5CSHOUSF:W5 CAMSFlag Total Housing Spending	Categ
6	H6CSHOUSF	H6CSHOUSF:W6 CAMSFlag Total Housing Spending	Categ
7	H7CSHOUSF	H7CSHOUSF:W7 CAMSFlag Total Housing Spending	Categ
8	H8CSHOUSF	H8CSHOUSF:W8 CAMSFlag Total Housing Spending	Categ
9	H9CSHOUSF	H9CSHOUSF:W9 CAMSFlag Total Housing Spending	Categ
10	H10CSHOUSF	H10CSHOUSF:W10 CAMSFlag Total Housing Spending	Categ
11	H11CSHOUSF	H11CSHOUSF:W11 CAMSFlag Total Housing Spending	Categ
12	H12CSHOUSF	H12CSHOUSF:W12 CAMSFlag Total Housing Spending	Categ
13	H13CSHOUSF	H13CSHOUSF:W13 CAMSFlag Total Housing Spending	Categ
14	H14CSHOUSF	H14CSHOUSF:W14 CAMSFlag Total Housing Spending	Categ
5	H5CSHRINS	H5CSHRINS:W5 CAMS Home/Rent Insurance	Categ
6	H6CSHRINS	H6CSHRINS:W6 CAMS Home/Rent Insurance	Categ
7	H7CSHRINS	H7CSHRINS:W7 CAMS Home/Rent Insurance	Categ
8	H8CSHRINS	H8CSHRINS:W8 CAMS Home/Rent Insurance	Categ
9	H9CSHRINS	H9CSHRINS:W9 CAMS Home/Rent Insurance	Categ
10	H10CSHRINS	H10CSHRINS:W10 CAMS Home/Rent Insurance	Categ
11	H11CSHRINS	H11CSHRINS:W11 CAMS Home/Rent Insurance	Categ
12	H12CSHRINS	H12CSHRINS:W12 CAMS Home/Rent Insurance	Categ
13	H13CSHRINS	H13CSHRINS:W13 CAMS Home/Rent Insurance	Categ
14	H14CSHRINS	H14CSHRINS:W14 CAMS Home/Rent Insurance	Categ
5	H5CSRENT	H5CSRENT:W5 CAMS Rent	Categ
6	H6CSRENT	H6CSRENT:W6 CAMS Rent	Categ
7	H7CSRENT	H7CSRENT:W7 CAMS Rent	Categ
8	H8CSRENT	H8CSRENT:W8 CAMS Rent	Categ
9	H9CSRENT	H9CSRENT:W9 CAMS Rent	Categ
10	H10CSRENT	H10CSRENT:W10 CAMS Rent	Categ
11	H11CSRENT	H11CSRENT:W11 CAMS Rent	Categ
12	H12CSRENT	H12CSRENT:W12 CAMS Rent	Categ
13	H13CSRENT	H13CSRENT:W13 CAMS Rent	Categ
14	H14CSRENT	H14CSRENT:W14 CAMS Rent	Categ
5	H5CSPTAX	H5CSPTAX:W5 CAMS Property Tax	Categ
6	H6CSPTAX	H6CSPTAX:W6 CAMS Property Tax	Categ
7	H7CSPTAX	H7CSPTAX:W7 CAMS Property Tax	Categ
8	H8CSPTAX	H8CSPTAX:W8 CAMS Property Tax	Categ
9	H9CSPTAX	H9CSPTAX:W9 CAMS Property Tax	Categ
10	H10CSPTAX	H10CSPTAX:W10 CAMS Property Tax	Categ
11	H11CSPTAX	H11CSPTAX:W11 CAMS Property Tax	Categ
12	H12CSPTAX	H12CSPTAX:W12 CAMS Property Tax	Categ
13	H13CSPTAX	H13CSPTAX:W13 CAMS Property Tax	Categ
14	H14CSPTAX	H14CSPTAX:W14 CAMS Property Tax	Categ
5	H5CSMORTINT	H5CSMORTINT:W5 CAMS Mortgage Interest	Categ
6	H6CSMORTINT	H6CSMORTINT:W6 CAMS Mortgage Interest	Categ
7	H7CSMORTINT	H7CSMORTINT:W7 CAMS Mortgage Interest	Categ
8	H8CSMORTINT	H8CSMORTINT:W8 CAMS Mortgage Interest	Categ
9	H9CSMORTINT	H9CSMORTINT:W9 CAMS Mortgage Interest	Categ
10	H10CSMORTINT	H10CSMORTINT:W10 CAMS Mortgage Interest	Categ
11	H11CSMORTINT	H11CSMORTINT:W11 CAMS Mortgage Interest	Categ
12	H12CSMORTINT	H12CSMORTINT:W12 CAMS Mortgage Interest	Categ
13	H13CSMORTINT	H13CSMORTINT:W13 CAMS Mortgage Interest	Categ
14	H14CSMORTINT	H14CSMORTINT:W14 CAMS Mortgage Interest	Categ

```
 5    H5CSHREPMNT         H5CSHREPMNT:W5 CAMS Home Repairs Supplies & Services        Categ

 6    H6CSHREPSUP         H6CSHREPSUP:W6 CAMS Home Repairs Supplies                    Categ
 7    H7CSHREPSUP         H7CSHREPSUP:W7 CAMS Home Repairs Supplies                    Categ
 8    H8CSHREPSUP         H8CSHREPSUP:W8 CAMS Home Repairs Supplies                    Categ
 9    H9CSHREPSUP         H9CSHREPSUP:W9 CAMS Home Repairs Supplies                    Categ
10    H10CSHREPSUP        H10CSHREPSUP:W10 CAMS Home Repairs Supplies                  Categ
11    H11CSHREPSUP        H11CSHREPSUP:W11 CAMS Home Repairs Supplies                  Categ
12    H12CSHREPSUP        H12CSHREPSUP:W12 CAMS Home Repairs Supplies                  Categ
13    H13CSHREPSUP        H13CSHREPSUP:W13 CAMS Home Repairs Supplies                  Categ
14    H14CSHREPSUP        H14CSHREPSUP:W14 CAMS Home Repairs Supplies                  Categ

 5    H5CSMORT            H5CSMORT:W5 CAMS Mortgage Interest + Principal Payments       Categ
 6    H6CSMORT            H6CSMORT:W6 CAMS Mortgage Interest + Principal Payments       Categ
 7    H7CSMORT            H7CSMORT:W7 CAMS Mortgage Interest + Principal Payments       Categ
 8    H8CSMORT            H8CSMORT:W8 CAMS Mortgage Interest + Principal Payments       Categ
 9    H9CSMORT            H9CSMORT:W9 CAMS Mortgage Interest + Principal Payments       Categ
10    H10CSMORT           H10CSMORT:W10 CAMS Mortgage Interest + Principal Payments     Categ
11    H11CSMORT           H11CSMORT:W11 CAMS Mortgage Interest + Principal Payments     Categ
12    H12CSMORT           H12CSMORT:W12 CAMS Mortgage Interest + Principal Payments     Categ
13    H13CSMORT           H13CSMORT:W13 CAMS Mortgage Interest + Principal Payments     Categ
14    H14CSMORT           H14CSMORT:W14 CAMS Mortgage Interest + Principal Payments     Categ
```

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSHOUS	3789	7556.61	11379.56	0.0	209360.0
H6CSHOUS	3224	7417.48	9493.27	0.0	109815.0
H7CSHOUS	3832	7684.77	8260.42	0.0	80573.0
H8CSHOUS	3704	8480.05	9697.30	0.0	155019.0
H9CSHOUS	3550	8162.45	8695.05	0.0	91934.0
H10CSHOUS	4319	8649.26	9521.27	0.0	104896.0
H11CSHOUS	4017	8704.17	9244.19	0.0	93949.0
H12CSHOUS	3689	9131.73	10877.30	0.0	112750.0
H13CSHOUS	3454	9730.82	11191.76	0.0	127680.0
H14CSHOUS	3264	10416.57	12826.46	0.0	202942.0
H5CSHOUSF	3789	0.23	0.42	0.0	1.0
H6CSHOUSF	3224	0.23	0.42	0.0	1.0
H7CSHOUSF	3832	0.21	0.41	0.0	1.0
H8CSHOUSF	3704	0.18	0.38	0.0	1.0
H9CSHOUSF	3550	0.19	0.39	0.0	1.0
H10CSHOUSF	4319	0.19	0.40	0.0	1.0
H11CSHOUSF	4017	0.20	0.40	0.0	1.0
H12CSHOUSF	3689	0.19	0.39	0.0	1.0
H13CSHOUSF	3454	0.19	0.40	0.0	1.0
H14CSHOUSF	3264	0.19	0.39	0.0	1.0
H5CSHRINS	3795	708.21	1503.27	0.0	24000.0
H6CSHRINS	3224	610.80	777.45	0.0	10000.0
H7CSHRINS	3832	673.20	910.66	0.0	14700.0
H8CSHRINS	3705	750.06	1032.77	0.0	13000.0
H9CSHRINS	3553	768.86	1146.66	0.0	19200.0
H10CSHRINS	4321	763.67	1135.87	0.0	15396.0
H11CSHRINS	4019	772.91	1069.46	0.0	13000.0
H12CSHRINS	3691	844.45	1285.44	0.0	15000.0
H13CSHRINS	3456	806.51	1092.47	0.0	14000.0
H14CSHRINS	3266	884.88	1279.97	0.0	15600.0

H5CSRENT	3796	1199.46	3184.81	0.0	36000.0
H6CSRENT	3225	1458.07	4549.73	0.0	70000.0
H7CSRENT	3836	1524.33	4246.51	0.0	55440.0
H8CSRENT	3707	1668.96	4649.43	0.0	54000.0
H9CSRENT	3551	1832.60	5279.36	0.0	72000.0
H10CSRENT	4323	2092.01	5564.35	0.0	104400.0
H11CSRENT	4018	2337.93	6065.99	0.0	93600.0
H12CSRENT	3690	2732.35	7885.00	0.0	108000.0
H13CSRENT	3454	3086.67	8862.65	0.0	127680.0
H14CSRENT	3267	3505.63	10807.31	0.0	192000.0
H5CSPTAX	3791	1752.45	3429.92	0.0	52800.0
H6CSPTAX	3224	1418.76	1889.33	0.0	20000.0
H7CSPTAX	3832	1569.24	2190.88	0.0	21030.0
H8CSPTAX	3704	1697.20	2381.75	0.0	25000.0
H9CSPTAX	3551	1742.04	2454.31	0.0	23000.0
H10CSPTAX	4319	1731.05	2658.21	0.0	34000.0
H11CSPTAX	4018	1702.37	2587.76	0.0	28238.0
H12CSPTAX	3690	1736.92	2877.00	0.0	43000.0
H13CSPTAX	3455	1814.31	3042.07	0.0	38000.0
H14CSPTAX	3264	1836.66	2856.14	0.0	30000.0
H5CSMORTINT	3800	1832.36	3472.57	0.0	33566.0
H6CSMORTINT	3225	1875.60	3777.20	0.0	44167.0
H7CSMORTINT	3834	2171.20	4677.54	0.0	73213.0
H8CSMORTINT	3706	2562.38	5430.09	0.0	74862.0
H9CSMORTINT	3550	2364.59	5328.82	0.0	66476.0
H10CSMORTINT	4320	2489.75	4607.94	0.0	49589.0
H11CSMORTINT	4019	2447.06	4868.62	0.0	58994.0
H12CSMORTINT	3689	2357.13	5186.66	0.0	66985.0
H13CSMORTINT	3455	2538.40	5356.32	0.0	72576.0
H14CSMORTINT	3268	2364.02	5068.86	0.0	66296.0
H5CSHREPMNT	3790	2142.34	9169.54	0.0	208560.0
H6CSHREPSUP	3225	808.66	3176.62	0.0	60000.0
H7CSHREPSUP	3834	777.47	2078.93	0.0	30000.0
H8CSHREPSUP	3704	798.88	2269.48	0.0	35000.0
H9CSHREPSUP	3550	640.83	1486.26	0.0	17253.0
H10CSHREPSUP	4319	694.71	2096.14	0.0	32000.0
H11CSHREPSUP	4018	682.18	1994.41	0.0	32800.0
H12CSHREPSUP	3689	646.13	1675.99	0.0	22000.0
H13CSHREPSUP	3457	675.24	1855.24	0.0	30000.0
H14CSHREPSUP	3264	785.29	2424.48	0.0	39000.0
H5CSMORT	3800	2956.88	5640.14	0.0	52000.0
H6CSMORT	3225	3182.05	6275.01	0.0	70000.0
H7CSMORT	3834	3800.67	7591.41	0.0	138000.0
H8CSMORT	3706	4356.24	8705.13	0.0	126048.0
H9CSMORT	3550	4159.38	8895.96	0.0	123600.0
H10CSMORT	4320	4413.28	8125.20	0.0	82368.0
H11CSMORT	4019	4085.34	7927.20	0.0	102000.0
H12CSMORT	3689	4208.66	8866.33	0.0	123052.0
H13CSMORT	3455	4206.92	8471.57	0.0	114000.0
H14CSMORT	3268	4754.11	9477.34	0.0	132000.0

Categorical Variable Codes

HwCSHOUSF: CAMSFlag Total Housing Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						77	30	47	34	37	51
0. No imputation						2935	2472	3016	3039	2892	3479
1. Regression imputation						854	752	816	665	658	840

Value		w11	w12	w13	w14
.T=Resp <10 cat		50	48	52	59
0. No imputation		3211	2998	2785	2644
1. Regression imputation		806	691	669	620

General Comments

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in "1.11 Cleaning and Imputation of Spending Variables." There are differences across waves in which categories are included in total housing spending as documented below.

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 14 which asks about 2019 spending.

The housing spending components are summed to create the total housing spending measure. CAMS spending measures are reported at the household level. The CAMS Respondent reports spending for all members of his/her household.

How Constructed

HwCSHOUS is the sum of all of the spending on housing, including home/renters insurance (HwCSHRINS), rent (HwCSRENT), property taxes (HwCSPTAX), mortgage interest (HwCSMORTINT), and home repair supplies (HwCSHREPSUP) and services (HwCHREPSVC) which is combined into one category (HwCSHREPMNT) in 2001.

To arrive at a pure spending measure we devised a way to remove the saving component (i.e., the principal) contained in the mortgage payments. Please see "1.7 Spending versus Consumption" for details. To enable the analyst to make a different correction without having to extract any raw variables from the original CAMS files, we have included "mortgage payments" (HwCSMORT) and our imputed "mortgage interest" (HwCSMORTINT) as separate variables. The analyst can use these (a) to subtract them from RAND CAMS total spending and (b) to compute mortgage payments to be added back into the measures of total spending. Please see "1.8 Components of Household Spending and Consumption" for more details on the calculation of mortgage interest.

HwCSHOUSF is a flag that indicates whether any components are imputed. Please see section "1.11 Cleaning and Imputation of Spending Variables" for more information on imputation methods and section "2.17 Category-level Flags" for information on the category-level imputation flags.

Cross Wave Differences in Original CAMS Data

The CAMS 2001 survey asked about home repairs and maintenance as one spending item. In later waves, this item was split into two components:

1. Home repairs and maintenance supplies: materials your household bought directly

2. Home repairs and maintenance services: hiring costs including materials they provided

CAMS Variables Used

```
CAMS 2001:
    B10A_01          B10A. RENT - PER
    B10_01           B10. RENT
    B19A_01          B19A. HOME MAINTAIN - PER
    B19_01           B19. HOME MAINTAIN
    B7A_01           B7A. MORTAGAGE - PER
    B7_01            B7. MORTGAGE
    B8A_01           B8A. HOME/RENT INS - PER
    B8_01            B8. HOME/RENT INS.
    B9A_01           B9A. PROPERTY TAX - PER
    B9_01            B9. PROPERTY TAX
CAMS 2003:
    B13A_03          B13A. MORTAGAGE - PER
    B13_03           B13. MORTGAGE
    B14A_03          B14A. RENT - PER
    B14_03           B14. RENT
    B24A_03          B24A. HOME REPAIRS/MAINTENANCE DIY - PER
    B24_03           B24. HOME REPAIRS/MAINTENANCE DIY
    B25A_03          B25A. HOME REPAIRS/MAINTENANCE SERVICE - PER
    B25_03           B25. HOME REPAIRS/MAINTENANCE SERVICES
CAMS2003-2019:
    B7_YR            B7. HOME/RENTERS INSURANCE
    B8_YR            B8. PROPERTY TAXES
CAMS2005-2019:
    B13_YR           B13. HOME REPAIRS/MAINTENANCE DIY
    B14_YR           B14. HOME REPAIRS/MAINTENANCE SERVICES
    B18A_YR          B18A. MORTGAGE - PER
    B18_YR           B18. MORTGAGE
    B19A_YR          B19A. RENT - PER
    B19_YR           B19. RENT
```

2.13 Total Household Consumption

```
Wave   Variable          Label                                              Type

  5    H5CCTOT           H5CCTOT:W5 CAMS Total Consumption                  Categ
  6    H6CCTOT           H6CCTOT:W6 CAMS Total Consumption                  Categ
  7    H7CCTOT           H7CCTOT:W7 CAMS Total Consumption                  Categ
  8    H8CCTOT           H8CCTOT:W8 CAMS Total Consumption                  Categ
  9    H9CCTOT           H9CCTOT:W9 CAMS Total Consumption                  Categ
 10    H10CCTOT          H10CCTOT:W10 CAMS Total Consumption                Categ
 11    H11CCTOT          H11CCTOT:W11 CAMS Total Consumption                Categ
 12    H12CCTOT          H12CCTOT:W12 CAMS Total Consumption                Categ
 13    H13CCTOT          H13CCTOT:W13 CAMS Total Consumption                Categ
 14    H14CCTOT          H14CCTOT:W14 CAMS Total Consumption                Categ
```

Descriptive Statistics

```
Variable             N        Mean      Std Dev      Minimum      Maximum

H5CCTOT           3789     40564.77     29947.16       112.0     312620.0
H6CCTOT           3224     44375.85     31531.84       122.0     339080.0
H7CCTOT           3832     44680.42     32944.58         0.0     337397.0
H8CCTOT           3704     48059.22     35407.44       104.0     426254.0
H9CCTOT           3550     45788.22     33633.99       120.0     512991.0
H10CCTOT          4319     43312.35     31786.04        81.0     457783.0
H11CCTOT          4017     42125.91     30316.27        73.0     277689.0
H12CCTOT          3689     43957.45     32884.32        63.0     331830.0
H13CCTOT          3454     45704.52     34893.56       102.0     417894.0
H14CCTOT          3174     45927.03     34616.65         0.0     303658.0
```

General Comments

The CAMS questionnaire aims at eliciting household spending. However, in most economic models individuals (or households) draw utility from consumption. Consumption is different from spending for items like consumer durables (e.g., automobile, TV, PC etc.) and housing. The purchase occurs in one period, but the item provides utility for more than one period. We provide one possible derivation of a measure of household consumption. The data used to construct the consumption measures include spending measures from the CAMS surveys and demographic data, income and wealth values from the adjacent HRS core surveys. Details on the methodology can be found in the section "1.8 Components of Household Spending and Consumption."

How Constructed

HwCCTOT is the sum of all of the consumption in the household, including durable consumption, housing consumption, transportation consumption and nondurable spending. Details on the specification of each of these measures can be found on the following pages of the data codebook and also in "1.8 Components of Household Spending and Consumption." The nondurable spending categories vary by wave. Please see "1.6 Differences Across Waves" for details of which spending categories are available in each wave.

Cross Wave Differences in Original CAMS Data

The CAMS 2001 and CAMS 2003 surveys asked fewer nondurable spending categories than in the later waves (see "1.6 Differences Across Waves").

RAND HRS Longitudinal File 2020 (V1) Variables Used

```
RABYEAR    RABYEAR: R birth year
RAEDUC     RAEDUC: R education (categ)
RAGENDER   RAGENDER: R Gender
H5AHOUS    H5AHOUS:W5 Assets:Primary Residence--Cross-wave
H6AHOUS    H6AHOUS:W6 Assets:Primary Residence--Cross-wave
H7AHOUS    H7AHOUS:W7 Assets:Primary Residence--Cross-wave
H8AHOUS    H8AHOUS:W8 Assets:Primary Residence--Cross-wave
H9AHOUS    H9AHOUS:W9 Assets:Primary Residence--Cross-wave
H10AHOUS   H10AHOUS:W10 Assets:Primary Residence--Cross-wave
H11AHOUS   H11AHOUS:W11 Assets:Primary Residence--Cross-wave
H12AHOUS   H12AHOUS:W12 Assets:Primary Residence--Cross-wave
H13AHOUS   H13AHOUS:W13 Assets:Primary Residence--Cross-wave
H14AHOUS   H14AHOUS:W14 Assets:Primary Residence--Cross-wave
H5ATOTB    H5ATOTB:W5 Total of all Assets--Cross-wave
H6ATOTB    H6ATOTB:W6 Total of all Assets--Cross-wave
H7ATOTB    H7ATOTB:W7 Total of all Assets--Cross-wave
H8ATOTB    H8ATOTB:W8 Total of all Assets--Cross-wave
H9ATOTB    H9ATOTB:W9 Total of all Assets--Cross-wave
H10ATOTB   H10ATOTB:W10 Total of all Assets--Cross-wave
H11ATOTB   H11ATOTB:W11 Total of all Assets--Cross-wave
H12ATOTB   H12ATOTB:W12 Total of all Assets--Cross-wave
H13ATOTB   H13ATOTB:W13 Total of all Assets--Cross-wave
H14ATOTB   H14ATOTB:W14 Total of all Assets--Cross-wave
H5ATRAN    H5ATRAN:W5 Assets:Transportation--Cross-wave
H6ATRAN    H6ATRAN:W6 Assets:Transportation--Cross-wave
H7ATRAN    H7ATRAN:W7 Assets:Transportation--Cross-wave
H8ATRAN    H8ATRAN:W8 Assets:Transportation--Cross-wave
H9ATRAN    H9ATRAN:W9 Assets:Transportation--Cross-wave
H10ATRAN   H10ATRAN:W10 Assets:Transportation--Cross-wave
H11ATRAN   H11ATRAN:W11 Assets:Transportation--Cross-wave
H12ATRAN   H12ATRAN:W12 Assets:Transportation--Cross-wave
H13ATRAN   H13ATRAN:W13 Assets:Transportation--Cross-wave
H14ATRAN   H14ATRAN:W14 Assets:Transportation--Cross-wave
H5HHRES    H5HHRES:W5 Number of people in HH
H6HHRES    H6HHRES:W6 Number of people in HH
H7HHRES    H7HHRES:W7 Number of people in HH
H8HHRES    H8HHRES:W8 Number of people in HH
H9HHRES    H9HHRES:W9 Number of people in HH
H10HHRES   H10HHRES:W10 Number of people in HH
H11HHRES   H11HHRES:W11 Number of people in HH
H12HHRES   H12HHRES:W12 Number of people in HH
H13HHRES   H13HHRES:W13 Number of people in HH
H14HHRES   H14HHRES:W14 Number of people in HH
H5ITOT     H5ITOT:W5 Income: Total HHold / R+Sp only
H6ITOT     H6ITOT:W6 Income: Total HHold / R+Sp only
H7ITOT     H7ITOT:W7 Income: Total HHold / R+Sp only
H8ITOT     H8ITOT:W8 Income: Total HHold / R+Sp only
H9ITOT     H9ITOT:W9 Income: Total HHold / R+Sp only
H10ITOT    H10ITOT:W10 Income: Total HHold / R+Sp only
H11ITOT    H11ITOT:W11 Income: Total HHold / R+Sp only
```

```
H12ITOT   H12ITOT:W12 Income: Total HHold / R+Sp only
H13ITOT   H13ITOT:W13 Income: Total HHold / R+Sp only
H14ITOT   H14ITOT:W14 Income: Total HHold / R+Sp only
```

CAMS Variables Used

```
CAMS 2001:
    B10A_01           B10A. RENT – PER
    B10_01            B10. RENT
    B11A_01           B11A. ELECTRICITY – PER
    B11_01            B11. ELECTRICITY
    B12A_01           B12A. WATER – PER
    B12_01            B12. WATER
    B13A_01           B13A. HEAT – PER
    B13_01            B13. HEAT
    B14A_01           B14A. PHONE/CABLE – PER
    B14_01            B14. PHONE/CABLE/INTERNET
    B17A_01           B17A. HEALTH INSUR – PER
    B17_01            B17. HEALTH INSURANCE
    B18A_01           B18A. HOUSE/YARD – PER
    B18_01            B18.  HOUSE/YARD SUPPLIES
    B19A_01           B19A. HOME MAINTAIN – PER
    B19_01            B19. HOME MAINTAIN
    B20A_01           B20. FOOD/DRINK GROC – PER
    B20_01            B20. FOOD/DRINK GROCERY
    B21A_01           B21A. DINING OUT – PER
    B21_01            B21. DINING OUT
    B22A_01           B22A. CLOTHING – PER
    B22_01            B22. CLOTHING
    B23A_01           B23A. GASOLINE – PER
    B23_01            B23. GASOLINE
    B25A_01           B25A. DRUGS – PER
    B25_01            B25. DRUGS
    B26A_01           B26A. HEALTH SERVICES – PER
    B26_01            B26. HEALTH SERVICES
    B27A_01           B27A. MED SUPPLIES – PER
    B27_01            B27. MEDICAL SUPPLIES
    B28A_01           B28A. VACATIONS – PER
    B28_01            B28. VACATIONS
    B29A_01           B29A. TICKETS – PER
    B29_01            B29. TICKETS
    B30A_01           B30A. HOBBIES – PER
    B30_01            B30. HOBBIES
    B31A_01           B31A. CONTRIBUTIONS – PER
    B31_01            B31. CONTRIBUTIONS
    B32A_01           B32A. GIFTS – PER
    B32_01            B32. GIFTS
    B8A_01            B8A. HOME/RENT INS – PER
    B8_01             B8. HOME/RENT INS.
    B9A_01            B9A. PROPERTY TAX – PER
    B9_01             B9. PROPERTY TAX
CAMS 2003:
    B14A_03           B14A. RENT – PER
    B14_03            B14. RENT
    B15A_03           B15A. ELECTRICITY – PER
    B15_03            B15. ELECTRICITY
    B16A_03           B16A. WATER – PER
    B16_03            B16. WATER
```

```
    B17A_03          B17A. HEAT – PER
    B17_03           B17. HEAT
    B18A_03          B18A. PHONE/CABLE – PER
    B18_03           B18. PHONE/CABLE/INTERNET
    B20A_03          B20A. HOUSEKEEPING SUPPLIES – PER
    B20_03           B20. HOUSEKEEPING SUPPLIES
    B21A_03          B21A. HOUSEKEEPING SERVICES – PER
    B21_03           B21. HOUSEKEEPING SERVICES
    B22A_03          B22A. GARDEN/YARD SUPPLIES – PER
    B22_03           B22.GARDENING/YARD SUPPLIES
    B23A_03          B23A. GARDEN/YARD SERVICES – PER
    B23_03           B23. GARDEN/YARD SERVICES
    B24A_03          B24A. HOME REPAIRS/MAINTENANCE DIY – PER
    B24_03           B24. HOME REPAIRS/MAINTENANCE DIY
    B25A_03          B25A. HOME REPAIRS/MAINTENANCE SERVICE – PER
    B25_03           B25. HOME REPAIRS/MAINTENANCE SERVICES
    B26A_03          B26A. CLOTHING – PER
    B26_03           B26. CLOTHING AND APPAREL
    B27A_03          B27A. PERSONAL CARE PRODUCTS/SERVICES – PER
    B27_03           B27. PERSONAL CARE PRODUCTS/SERVICES
    B28A_03          B28A. DRUGS – PER
    B28_03           B28. DRUGS
    B29A_03          B29A. HEALTH SERVICES – PER
    B29_03           B29. HEALTH SERVICES
    B30A_03          B30A. MED SUPPLIES – PER
    B30_03           B30. MEDICAL SUPPLIES
    B31A_03          B31A. TICKETS – PER
    B31_03           B31. TICKETS
    B32A_03          B32A. SPORTS EQUIPMENT – PER
    B32_03           B32. SPORTS EQUIPMENT
    B33A_03          B33A. HOBBIES/LEISURE EQUIPMENT – PER
    B33_03           B33. HOBBIES/LEISURE EQUIPMENT
    B34A_03          B34A. CONTRIBUTIONS – PER
    B34_03           B34. CONTRIBUTIONS
    B35A_03          B35A. GIFTS – PER
    B35_03           B35. GIFTS
    B36A_03          B36. FOOD/DRINK GROC – PER
    B36_03           B36. FOOD/DRINK GROCERY
    B37A_03          B37A. DINING OUT – PER
    B37_03           B37. DINING OUT
    B38A_03          B38A. GASOLINE – PER
    B38_03           B38. GASOLINE
CAMS2001–2019:
    B2A_YR           B2A. REFRIGERATOR PRICE
    B2_YR            B2. BUY REFRIGERATOR
    B3A_YR           B3A. WASHER/DRYER PRICE
    B3_YR            B3. BUY WASHER/DRYER
    B4A_YR           B4A. DISHWASHER PRICE
    B4_YR            B4. BUY DISWASHER
    B5A_YR           B5A. TELEVISION PRICE
    B5_YR            B5. BUY TELEVISION
    B6A_YR           B6A. COMPUTER PRICE
    B6_YR            B6. BUY COMPUTER
CAMS2003–2019:
    B11_YR           B11. HEALTH INSURANCE
    B12_YR           B12. TRIPS AND VACATIONS
    B7_YR            B7. HOME/RENTERS INSURANCE
    B8_YR            B8. PROPERTY TAXES
CAMS2005–2019:
```

```
B13_YR          B13. HOME REPAIRS/MAINTENANCE DIY
B14_YR          B14. HOME REPAIRS/MAINTENANCE SERVICES
B15_YR          B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
B16_YR          B16. CONTRIBUTIONS
B17_YR          B17. GIFTS
B19A_YR         B19A. RENT - PER
B19_YR          B19. RENT
B20A_YR         B20A. ELECTRICITY - PER
B20_YR          B20. ELECTRICITY
B21A_YR         B21A. WATER - PER
B21_YR          B21. WATER
B22A_YR         B22A. HEAT - PER
B22_YR          B22. HEAT
B23A_YR         B23A. PHONE/CABLE - PER
B23_YR          B23. PHONE/CABLE/INTERNET
B25A_YR         B25A. HOUSEKEEPING SUPPLIES - PER
B25_YR          B25. HOUSEKEEPING SUPPLIES
B26A_YR         B26A. HOUSEKEEPING SERVICES - PER
B26_YR          B26. HOUSEKEEPING SERVICES
B27A_YR         B27A. GARDEN/YARD SUPPLIES - PER
B27_YR          B27. GARDENING/YARD SUPPLIES
B28A_YR         B28A. GARDEN/YARD SERVICES - PER
B28_YR          B28. GARDEN/YARD SERVICES
B29A_YR         B29A. CLOTHING - PER
B29_YR          B29. CLOTHING AND APPAREL
B30A_YR         B30A. PERSONAL CARE PROD/SERVICES - PER
B30_YR          B30. PERSONAL CARE PRODUCTS/SERVICES
B31A_YR         B31A. DRUGS OOP - PER
B31_YR          B31. DRUGS OOP
B32A_YR         B32A. HEALTH SERVICES - PER
B32_YR          B32. HEALTH SERVICES
B33A_YR         B33A. MED SUPPLIES - PER
B33_YR          B33. MEDICAL SUPPLIES
B34A_YR         B34A. TICKETS - PER
B34_YR          B34. TICKETS
B35A_YR         B35A. SPORTS EQUIPMENT - PER
B35_YR          B35. SPORTS EQUIPMENT
B36A_YR         B36A. HOBBIES/LEISURE EQUIPMENT - PER
B36_YR          B36. HOBBIES/LEISURE EQUIPMENT
B37A_YR         B37A. FOOD/DRINK GROC - PER
B37_YR          B37. FOOD/DRINK GROCERY
B38A_YR         B38A. DINING OUT - PER
B38_YR          B38. DINING OUT
B39A_YR         B39A. GASOLINE - PER
B39_YR          B39. GASOLINE
```

2.14 Total Durable Consumption

Wave	Variable	Label	Type
5	H5CCDUR	H5CCDUR:W5 CAMS Total Durables Consumption excl. trans cons	Categ
6	H6CCDUR	H6CCDUR:W6 CAMS Total Durables Consumption excl. trans cons	Categ
7	H7CCDUR	H7CCDUR:W7 CAMS Total Durables Consumption excl. trans cons	Categ
8	H8CCDUR	H8CCDUR:W8 CAMS Total Durables Consumption excl. trans cons	Categ
9	H9CCDUR	H9CCDUR:W9 CAMS Total Durables Consumption excl. trans cons	Categ
10	H10CCDUR	H10CCDUR:W10 CAMS Total Durables Consumption excl. trans cons	Categ
11	H11CCDUR	H11CCDUR:W11 CAMS Total Durables Consumption excl. trans cons	Categ
12	H12CCDUR	H12CCDUR:W12 CAMS Total Durables Consumption excl. trans cons	Categ
13	H13CCDUR	H13CCDUR:W13 CAMS Total Durables Consumption excl. trans cons	Categ
14	H14CCDUR	H14CCDUR:W14 CAMS Total Durables Consumption excl. trans cons	Categ
5	H5CCWMET	H5CCWMET:W5 CAMS White Metal Consumption	Categ
6	H6CCWMET	H6CCWMET:W6 CAMS White Metal Consumption	Categ
7	H7CCWMET	H7CCWMET:W7 CAMS White Metal Consumption	Categ
8	H8CCWMET	H8CCWMET:W8 CAMS White Metal Consumption	Categ
9	H9CCWMET	H9CCWMET:W9 CAMS White Metal Consumption	Categ
10	H10CCWMET	H10CCWMET:W10 CAMS White Metal Consumption	Categ
11	H11CCWMET	H11CCWMET:W11 CAMS White Metal Consumption	Categ
12	H12CCWMET	H12CCWMET:W12 CAMS White Metal Consumption	Categ
13	H13CCWMET	H13CCWMET:W13 CAMS White Metal Consumption	Categ
14	H14CCWMET	H14CCWMET:W14 CAMS White Metal Consumption	Categ
5	H5CCTV	H5CCTV:W5 CAMS Television Consumption	Categ
6	H6CCTV	H6CCTV:W6 CAMS Television Consumption	Categ
7	H7CCTV	H7CCTV:W7 CAMS Television Consumption	Categ
8	H8CCTV	H8CCTV:W8 CAMS Television Consumption	Categ
9	H9CCTV	H9CCTV:W9 CAMS Television Consumption	Categ
10	H10CCTV	H10CCTV:W10 CAMS Television Consumption	Categ
11	H11CCTV	H11CCTV:W11 CAMS Television Consumption	Categ
12	H12CCTV	H12CCTV:W12 CAMS Television Consumption	Categ
13	H13CCTV	H13CCTV:W13 CAMS Television Consumption	Categ
14	H14CCTV	H14CCTV:W14 CAMS Television Consumption	Categ
5	H5CCPC	H5CCPC:W5 CAMS Computer Consumption	Categ
6	H6CCPC	H6CCPC:W6 CAMS Computer Consumption	Categ
7	H7CCPC	H7CCPC:W7 CAMS Computer Consumption	Categ
8	H8CCPC	H8CCPC:W8 CAMS Computer Consumption	Categ
9	H9CCPC	H9CCPC:W9 CAMS Computer Consumption	Categ
10	H10CCPC	H10CCPC:W10 CAMS Computer Consumption	Categ
11	H11CCPC	H11CCPC:W11 CAMS Computer Consumption	Categ
12	H12CCPC	H12CCPC:W12 CAMS Computer Consumption	Categ
13	H13CCPC	H13CCPC:W13 CAMS Computer Consumption	Categ
14	H14CCPC	H14CCPC:W14 CAMS Computer Consumption	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CCDUR	3789	255.60	162.10	40.0	1363.0
H6CCDUR	3224	229.62	145.66	42.0	1287.0
H7CCDUR	3832	266.69	186.74	0.0	1848.0
H8CCDUR	3704	302.02	222.97	29.0	2552.0
H9CCDUR	3550	282.26	164.65	13.0	1215.0
H10CCDUR	4319	265.32	168.26	17.0	1166.0
H11CCDUR	4017	230.30	133.76	38.0	1167.0
H12CCDUR	3689	218.42	149.20	24.0	1013.0
H13CCDUR	3454	217.76	137.15	43.0	873.0
H14CCDUR	3174	216.68	123.09	0.0	1290.0

H5CCWMET	3789	97.06	38.42	25.0	295.0
H6CCWMET	3224	101.35	46.40	24.0	253.0
H7CCWMET	3802	109.09	60.96	20.0	363.0
H8CCWMET	3663	115.34	68.69	18.0	464.0
H9CCWMET	3511	97.01	58.10	18.0	400.0
H10CCWMET	4288	100.02	60.85	22.0	400.0
H11CCWMET	3994	108.33	69.79	12.0	614.0
H12CCWMET	3662	111.60	80.93	11.0	597.0
H13CCWMET	3420	123.19	83.06	20.0	406.0
H14CCWMET	3037	120.94	64.97	23.0	543.0
H5CCTV	3789	46.08	20.99	9.0	147.0
H6CCTV	3224	43.23	20.07	9.0	142.0
H7CCTV	3802	54.15	33.68	5.0	203.0
H8CCTV	3663	95.68	72.60	11.0	439.0
H9CCTV	3511	110.98	57.11	30.0	391.0
H10CCTV	4288	78.88	43.08	14.0	273.0
H11CCTV	3994	59.84	27.22	20.0	187.0
H12CCTV	3662	50.21	21.07	14.0	139.0
H13CCTV	3420	46.25	21.85	14.0	142.0
H14CCTV	3037	37.96	17.91	8.0	103.0
H5CCPC	3789	112.46	113.37	4.0	1035.0
H6CCPC	3224	85.04	88.89	2.0	928.0
H7CCPC	3802	102.89	102.45	4.0	900.0
H8CCPC	3663	89.66	89.71	3.0	823.0
H9CCPC	3511	74.17	57.75	7.0	502.0
H10CCPC	4288	86.72	75.55	5.0	554.0
H11CCPC	3994	61.79	50.10	3.0	383.0
H12CCPC	3662	56.73	55.52	3.0	425.0
H13CCPC	3420	48.01	42.94	3.0	269.0
H14CCPC	3037	58.87	51.43	5.0	277.0

General Comments

The CAMS questionnaire aims at eliciting household spending. However, in most economic models individuals (or households) draw utility from consumption. Consumption is different from spending for items like consumer durables. The purchase occurs in one period, but the item provides utility for more than one period. We provide one possible implementation of the derivation of a measure of durables consumption. The data used to construct the consumption measures include spending measures from the CAMS surveys and demographic data, income and wealth values from the adjacent HRS core surveys. Details on the methodology can be found in the section "1.8 Components of Household Spending and Consumption."

How Constructed

HwCCDUR is the annual service flow for the five durables (excluding transportation consumption): televisions (HwCCTV), computers (HwCCPC), and white metal items including refrigerators, washer/dryers, and dishwashers (HwCCWMET).

We estimate using CAMS data the probability of a purchase and the expected value conditional on a purchase as functions of important covariates such as income, wealth, age, marital status and number of household members. For "white metal" consumption (refrigerators, washer/dryers and dishwashers), the probabilities and amounts are estimated as a white metal sum. Please see "1.8 Components of Household Spending and Consumption" for details.

RAND HRS Longitudinal File 2020 (V1) Variables Used

```
RABYEAR    RABYEAR: R birth year
RAEDUC     RAEDUC: R education (categ)
RAGENDER   RAGENDER: R Gender
H5ATOTB    H5ATOTB:W5 Total of all Assets--Cross-wave
H6ATOTB    H6ATOTB:W6 Total of all Assets--Cross-wave
H7ATOTB    H7ATOTB:W7 Total of all Assets--Cross-wave
H8ATOTB    H8ATOTB:W8 Total of all Assets--Cross-wave
H9ATOTB    H9ATOTB:W9 Total of all Assets--Cross-wave
H10ATOTB   H10ATOTB:W10 Total of all Assets--Cross-wave
H11ATOTB   H11ATOTB:W11 Total of all Assets--Cross-wave
H12ATOTB   H12ATOTB:W12 Total of all Assets--Cross-wave
H13ATOTB   H13ATOTB:W13 Total of all Assets--Cross-wave
H14ATOTB   H14ATOTB:W14 Total of all Assets--Cross-wave
H5HHRES    H5HHRES:W5 Number of people in HH
H6HHRES    H6HHRES:W6 Number of people in HH
H7HHRES    H7HHRES:W7 Number of people in HH
H8HHRES    H8HHRES:W8 Number of people in HH
H9HHRES    H9HHRES:W9 Number of people in HH
H10HHRES   H10HHRES:W10 Number of people in HH
H11HHRES   H11HHRES:W11 Number of people in HH
H12HHRES   H12HHRES:W12 Number of people in HH
H13HHRES   H13HHRES:W13 Number of people in HH
H14HHRES   H14HHRES:W14 Number of people in HH
H5ITOT     H5ITOT:W5 Income: Total HHold / R+Sp only
H6ITOT     H6ITOT:W6 Income: Total HHold / R+Sp only
H7ITOT     H7ITOT:W7 Income: Total HHold / R+Sp only
H8ITOT     H8ITOT:W8 Income: Total HHold / R+Sp only
H9ITOT     H9ITOT:W9 Income: Total HHold / R+Sp only
H10ITOT    H10ITOT:W10 Income: Total HHold / R+Sp only
H11ITOT    H11ITOT:W11 Income: Total HHold / R+Sp only
H12ITOT    H12ITOT:W12 Income: Total HHold / R+Sp only
H13ITOT    H13ITOT:W13 Income: Total HHold / R+Sp only
H14ITOT    H14ITOT:W14 Income: Total HHold / R+Sp only
```

CAMS Variables Used

```
CAMS2001-2019:
    B2A_YR          B2A. REFRIGERATOR PRICE
    B2_YR           B2. BUY REFRIGERATOR
    B3A_YR          B3A. WASHER/DRYER PRICE
    B3_YR           B3. BUY WASHER/DRYER
    B4A_YR          B4A. DISHWASHER PRICE
    B4_YR           B4. BUY DISWASHER
    B5A_YR          B5A. TELEVISION PRICE
    B5_YR           B5. BUY TELEVISION
    B6A_YR          B6A. COMPUTER PRICE
    B6_YR           B6. BUY COMPUTER
```

2.15 Total Transportation Consumption

Wave	Variable	Label	Type
5	H5CCTRANS	H5CCTRANS:W5 CAMS Total Transportation Consumption	Categ
6	H6CCTRANS	H6CCTRANS:W6 CAMS Total Transportation Consumption	Categ
7	H7CCTRANS	H7CCTRANS:W7 CAMS Total Transportation Consumption	Categ
8	H8CCTRANS	H8CCTRANS:W8 CAMS Total Transportation Consumption	Categ
9	H9CCTRANS	H9CCTRANS:W9 CAMS Total Transportation Consumption	Categ
10	H10CCTRANS	H10CCTRANS:W10 CAMS Total Transportation Consumption	Categ
11	H11CCTRANS	H11CCTRANS:W11 CAMS Total Transportation Consumption	Categ
12	H12CCTRANS	H12CCTRANS:W12 CAMS Total Transportation Consumption	Categ
13	H13CCTRANS	H13CCTRANS:W13 CAMS Total Transportation Consumption	Categ
14	H14CCTRANS	H14CCTRANS:W14 CAMS Total Transportation Consumption	Categ
5	H5CCCARUSE	H5CCCARUSE:W5 CAMS Car Usage	Categ
6	H6CCCARUSE	H6CCCARUSE:W6 CAMS Car Usage	Categ
7	H7CCCARUSE	H7CCCARUSE:W7 CAMS Car Usage	Categ
8	H8CCCARUSE	H8CCCARUSE:W8 CAMS Car Usage	Categ
9	H9CCCARUSE	H9CCCARUSE:W9 CAMS Car Usage	Categ
10	H10CCCARUSE	H10CCCARUSE:W10 CAMS Car Usage	Categ
11	H11CCCARUSE	H11CCCARUSE:W11 CAMS Car Usage	Categ
12	H12CCCARUSE	H12CCCARUSE:W12 CAMS Car Usage	Categ
13	H13CCCARUSE	H13CCCARUSE:W13 CAMS Car Usage	Categ
14	H14CCCARUSE	H14CCCARUSE:W14 CAMS Car Usage	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CCTRANS	3789	4783.03	4705.80	0.0	47064.0
H6CCTRANS	3224	4716.76	4415.57	0.0	57012.0
H7CCTRANS	3832	5158.71	5302.57	0.0	86633.0
H8CCTRANS	3704	5238.27	5047.20	0.0	64820.0
H9CCTRANS	3550	4780.83	4785.68	0.0	67657.0
H10CCTRANS	4319	5205.52	4974.28	0.0	69087.0
H11CCTRANS	4017	4891.84	4511.02	0.0	46375.0
H12CCTRANS	3689	4555.63	4509.45	0.0	55915.0
H13CCTRANS	3454	4566.38	4397.98	0.0	48122.0
H14CCTRANS	3174	4755.41	4528.23	0.0	62932.0
H5CCCARUSE	3789	3749.52	4240.51	0.0	46355.0
H6CCCARUSE	3224	3310.40	3415.53	0.0	46584.0
H7CCCARUSE	3832	3333.95	3849.51	0.0	82133.0
H8CCCARUSE	3704	3409.98	3950.00	0.0	62320.0
H9CCCARUSE	3550	3300.03	4021.21	0.0	64529.0
H10CCCARUSE	4319	3135.83	3801.70	0.0	66480.0
H11CCCARUSE	4017	2981.56	3332.50	0.0	44550.0
H12CCCARUSE	3689	2986.18	3441.38	0.0	51715.0
H13CCCARUSE	3454	3126.20	3544.08	0.0	46036.0
H14CCCARUSE	3174	3217.43	3658.69	0.0	59282.0

General Comments

The CAMS questionnaire aims at eliciting household spending. However, in most economic models individuals (or households) draw utility from consumption. Consumption is different from spending for items like consumer durables. The purchase occurs in one period, but the item provides utility for more than one period. We provide one possible implementation of the derivation of a measure of durables consumption. The data used to construct the consumption measures include spending measures from the CAMS surveys and demographic data, income and wealth values from the adjacent HRS core surveys. Details on the methodology can be found in the section "1.8 Components of Household Spending and Consumption."

How Constructed

HwCCTRANS is composed of automobile usage (HwCCCARUSE) and spending on gasoline (HwCSGAS - please see "2.11 Total Transportation spending" for gas details). Automobile usage is derived from the value of automobiles and other vehicles used for transportation from the HRS in years preceding and following the CAMS survey. User cost is the sum of interest on the value, 10% depreciation, and observed auto insurance costs from CAMS. For the interest rate we use a three-year moving average on 48-month loan rates for automobiles published by the Federal Reserve. Please see "1.8 Components of Household Spending and Consumption" for details.

RAND HRS Longitudinal File 2020 (V1) Variables Used

```
RABYEAR    RABYEAR: R birth year
RAEDUC     RAEDUC: R education (categ)
RAGENDER   RAGENDER: R Gender
H5ATOTB    H5ATOTB:W5 Total of all Assets--Cross-wave
H6ATOTB    H6ATOTB:W6 Total of all Assets--Cross-wave
H7ATOTB    H7ATOTB:W7 Total of all Assets--Cross-wave
H8ATOTB    H8ATOTB:W8 Total of all Assets--Cross-wave
H9ATOTB    H9ATOTB:W9 Total of all Assets--Cross-wave
H10ATOTB   H10ATOTB:W10 Total of all Assets--Cross-wave
H11ATOTB   H11ATOTB:W11 Total of all Assets--Cross-wave
H12ATOTB   H12ATOTB:W12 Total of all Assets--Cross-wave
H13ATOTB   H13ATOTB:W13 Total of all Assets--Cross-wave
H14ATOTB   H14ATOTB:W14 Total of all Assets--Cross-wave
H5ATRAN    H5ATRAN:W5 Assets:Transportation--Cross-wave
H6ATRAN    H6ATRAN:W6 Assets:Transportation--Cross-wave
H7ATRAN    H7ATRAN:W7 Assets:Transportation--Cross-wave
H8ATRAN    H8ATRAN:W8 Assets:Transportation--Cross-wave
H9ATRAN    H9ATRAN:W9 Assets:Transportation--Cross-wave
H10ATRAN   H10ATRAN:W10 Assets:Transportation--Cross-wave
H11ATRAN   H11ATRAN:W11 Assets:Transportation--Cross-wave
H12ATRAN   H12ATRAN:W12 Assets:Transportation--Cross-wave
H13ATRAN   H13ATRAN:W13 Assets:Transportation--Cross-wave
H14ATRAN   H14ATRAN:W14 Assets:Transportation--Cross-wave
H5HHRES    H5HHRES:W5 Number of people in HH
H6HHRES    H6HHRES:W6 Number of people in HH
H7HHRES    H7HHRES:W7 Number of people in HH
H8HHRES    H8HHRES:W8 Number of people in HH
H9HHRES    H9HHRES:W9 Number of people in HH
H10HHRES   H10HHRES:W10 Number of people in HH
H11HHRES   H11HHRES:W11 Number of people in HH
H12HHRES   H12HHRES:W12 Number of people in HH
H13HHRES   H13HHRES:W13 Number of people in HH
H14HHRES   H14HHRES:W14 Number of people in HH
H5ITOT     H5ITOT:W5 Income: Total HHold / R+Sp only
```

```
H6ITOT    H6ITOT:W6 Income: Total HHold / R+Sp only
H7ITOT    H7ITOT:W7 Income: Total HHold / R+Sp only
H8ITOT    H8ITOT:W8 Income: Total HHold / R+Sp only
H9ITOT    H9ITOT:W9 Income: Total HHold / R+Sp only
H10ITOT   H10ITOT:W10 Income: Total HHold / R+Sp only
H11ITOT   H11ITOT:W11 Income: Total HHold / R+Sp only
H12ITOT   H12ITOT:W12 Income: Total HHold / R+Sp only
H13ITOT   H13ITOT:W13 Income: Total HHold / R+Sp only
H14ITOT   H14ITOT:W14 Income: Total HHold / R+Sp only
```

CAMS Variables Used

```
CAMS 2001:
    B16A_01          B16A. AUTO INSUR – PER
    B16_01           B16. AUTO INSURANCE
    B1A_3_01         B1A_3. AUTO YEAR – 1
    B1A_4_01         B1A_4. AUTO PRICE – 1
    B1B_3_01         B1B_3. AUTO YEAR – 2
    B1B_4_01         B1B_4. AUTO PRICE – 2
    B1C_3_01         B1C_3. AUTO YEAR – 3
    B1C_4_01         B1C_4. AUTO PRICE – 3
    B23A_01          B23A. GASOLINE – PER
    B23_01           B23. GASOLINE
CAMS 2003:
    B38A_03          B38A. GASOLINE – PER
    B38_03           B38. GASOLINE
CAMS2001–2019:
    B1_YR            B1. PURCHASE/LEASE AUTO
CAMS2003–2019:
    B1A3_YR          B1A3. AUTO YEAR – 1
    B1A4_YR          B1A4. AUTO PRICE – 1
    B1A5_YR          B1A5. AUTO/TRUCK NEW OR USED – 1
    B1B3_YR          B1B3. AUTO YEAR – 2
    B1B4_YR          B1B4. AUTO PRICE – 2
    B1B5_YR          B1B5. AUTO/TRUCK NEW OR USED – 2
    B1C3_YR          B1C3. AUTO YEAR – 3
    B1C4_YR          B1C4. AUTO PRICE – 3
    B1C5_YR          B1C5. AUTO/TRUCK NEW OR USED – 3
    B9_YR            B9. VEHICLE INSURANCE
CAMS2005–2019:
    B39A_YR          B39A. GASOLINE – PER
    B39_YR           B39. GASOLINE
```

2.16 Total Housing Consumption

Wave	Variable	Label	Type
5	H5CCHOUS	H5CCHOUS:W5 CAMS Total Housing Consumption	Categ
6	H6CCHOUS	H6CCHOUS:W6 CAMS Total Housing Consumption	Categ
7	H7CCHOUS	H7CCHOUS:W7 CAMS Total Housing Consumption	Categ
8	H8CCHOUS	H8CCHOUS:W8 CAMS Total Housing Consumption	Categ
9	H9CCHOUS	H9CCHOUS:W9 CAMS Total Housing Consumption	Categ
10	H10CCHOUS	H10CCHOUS:W10 CAMS Total Housing Consumption	Categ
11	H11CCHOUS	H11CCHOUS:W11 CAMS Total Housing Consumption	Categ
12	H12CCHOUS	H12CCHOUS:W12 CAMS Total Housing Consumption	Categ
13	H13CCHOUS	H13CCHOUS:W13 CAMS Total Housing Consumption	Categ
14	H14CCHOUS	H14CCHOUS:W14 CAMS Total Housing Consumption	Categ
5	H5CCHREQ	H5CCHREQ:W5 CAMS Home Rental Equivalent	Categ
6	H6CCHREQ	H6CCHREQ:W6 CAMS Home Rental Equivalent	Categ
7	H7CCHREQ	H7CCHREQ:W7 CAMS Home Rental Equivalent	Categ
8	H8CCHREQ	H8CCHREQ:W8 CAMS Home Rental Equivalent	Categ
9	H9CCHREQ	H9CCHREQ:W9 CAMS Home Rental Equivalent	Categ
10	H10CCHREQ	H10CCHREQ:W10 CAMS Home Rental Equivalent	Categ
11	H11CCHREQ	H11CCHREQ:W11 CAMS Home Rental Equivalent	Categ
12	H12CCHREQ	H12CCHREQ:W12 CAMS Home Rental Equivalent	Categ
13	H13CCHREQ	H13CCHREQ:W13 CAMS Home Rental Equivalent	Categ
14	H14CCHREQ	H14CCHREQ:W14 CAMS Home Rental Equivalent	Categ
5	H5CCHREQF	H5CCHREQF:W5 CAMSFlag: Home Rental Equivalent	Categ
6	H6CCHREQF	H6CCHREQF:W6 CAMSFlag: Home Rental Equivalent	Categ
7	H7CCHREQF	H7CCHREQF:W7 CAMSFlag: Home Rental Equivalent	Categ
8	H8CCHREQF	H8CCHREQF:W8 CAMSFlag: Home Rental Equivalent	Categ
9	H9CCHREQF	H9CCHREQF:W9 CAMSFlag: Home Rental Equivalent	Categ
10	H10CCHREQF	H10CCHREQF:W10 CAMSFlag: Home Rental Equivalent	Categ
11	H11CCHREQF	H11CCHREQF:W11 CAMSFlag: Home Rental Equivalent	Categ
12	H12CCHREQF	H12CCHREQF:W12 CAMSFlag: Home Rental Equivalent	Categ
13	H13CCHREQF	H13CCHREQF:W13 CAMSFlag: Home Rental Equivalent	Categ
14	H14CCHREQF	H14CCHREQF:W14 CAMSFlag: Home Rental Equivalent	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CCHOUS	3789	15383.10	15090.49	0.0	255631.0
H6CCHOUS	3224	15979.26	14845.66	0.0	148299.0
H7CCHOUS	3832	17624.42	17375.96	0.0	217132.0
H8CCHOUS	3704	20001.55	20200.12	0.0	269912.0
H9CCHOUS	3550	18750.57	19908.62	0.0	475622.0
H10CCHOUS	4319	15515.37	16527.76	0.0	406815.0
H11CCHOUS	4017	14419.86	13708.24	0.0	181197.0
H12CCHOUS	3689	15437.17	15598.96	0.0	183191.0
H13CCHOUS	3454	16261.10	16656.37	0.0	232616.0
H14CCHOUS	3174	15657.80	16569.81	0.0	203931.0
H5CCHREQ	3789	11514.70	13276.09	0.0	250059.0
H6CCHREQ	3224	12195.03	13395.40	0.0	132799.0
H7CCHREQ	3832	13548.26	16020.56	0.0	213732.0
H8CCHREQ	3704	15540.22	18835.28	0.0	251912.0
H9CCHREQ	3550	13960.32	18358.16	0.0	468322.0
H10CCHREQ	4319	10548.39	14617.23	0.0	394315.0
H11CCHREQ	4017	9312.31	11484.18	0.0	161784.0
H12CCHREQ	3689	9840.56	12499.57	0.0	153191.0
H13CCHREQ	3454	10235.99	13452.58	0.0	223412.0

H14CCHREQ	3174	8953.16	12094.66	0.0	132416.0

H5CCHREQF	3789	2.77	1.23	0.0	6.0
H6CCHREQF	3224	2.82	1.23	0.0	6.0
H7CCHREQF	3832	2.73	1.30	0.0	6.0
H8CCHREQF	3704	2.76	1.33	0.0	6.0
H9CCHREQF	3550	2.80	1.36	0.0	6.0
H10CCHREQF	4319	2.66	1.47	0.0	6.0
H11CCHREQF	4017	2.64	1.48	0.0	6.0
H12CCHREQF	3689	2.63	1.50	0.0	6.0
H13CCHREQF	3454	2.59	1.53	0.0	6.0
H14CCHREQF	3264	2.36	1.96	0.0	6.0

Categorical Variable Codes

HwCCHREQF: CAMSFlag: Home Rental Equivalent

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						77	30	47	34	37	51
0. Renter						458	358	522	507	491	762
1. Homeowner: val from prev						82	60	98	77	64	102
2. Homeowner: val from foll						34	34	36	49	39	35
3. Homeowner: val from prev						2792	2410	2739	2608	2454	2874
4. Own trans: half of val f						210	158	200	203	227	195
5. Homeowner: no val from p						133	110	137	141	137	173
6. Not renter or homeowner						80	94	100	119	138	178

Value		w11	w12	w13	w14
.T=Resp <10 cat		50	48	52	59
0. Renter		742	696	693	699
1. Homeowner: val from prev		82	96	114	1035
2. Homeowner: val from foll		48	38	37	
3. Homeowner: val from prev		2617	2332	2087	
4. Own trans: half of val f		202	235	238	1101
5. Homeowner: no val from p		174	149	167	305
6. Not renter or homeowner		152	143	118	124

General Comments

The CAMS questionnaire aims at eliciting household spending. However, in most economic models individuals (or households) draw utility from consumption. Consumption is different from spending for items like housing. The purchase occurs in one period, but the item provides utility for more than one period. We provide one possible implementation of the derivation of a measure of household consumption. The data used to construct the consumption measures include spending measures from the CAMS surveys and demographic data, income and wealth values from the adjacent HRS core surveys. Details on the methodology can be found in the section "1.7 Spending versus Consumption."

How Constructed

HwCCHOUS is composed of spending on rent (HwCSRENT), property taxes (HwCSPTAX), home/renters insurance (HwCSHRINS) and a derived measure of home rental equivalent (HwCCHREQ). This equivalent captures the flow of

consumption services from owner-occupied housing and is the amount the housing unit would rent for in a competitive market in equilibrium. In particular we make the following assumptions and calculations. (1) The interest cost is the value of housing multiplied by the prevailing interest rate. We use the observed home value from the HRS core and use a moving average the last three years' 30 year mortgage interest rate. (2) We estimate depreciation from the observed home value in HRS and an assumed depreciation of 2.14 percent per year which is equivalent to a depreciation period of 47 years. The flow of housing services is the sum of these items, plus property tax and homeowners insurance and any rent that was paid for other properties. Please see "1.8 Components of Household Spending and Consumption" for details. For property tax, home/renter's insurance and rent spending please see "2.12 Total housing spending".

For renters, HwCCHOUS is calculated as rent plus home repairs and maintenance, property tax and homeowners insurance. Renters are households that report positive rent spending, report no mortgage spending, and have reported no positive home values in adjacent HRS core surveys.

HwCCHREQF is a flag that indicates whether the CAMS Respondent is a homeowner or renter and what HRS core information was available for estimating the base home value, a component of the home rental equivalent. A CAMS Respondent is considered to be a homeowner if (a) he/she reported mortgage spending in the CAMS or (b) reported a positive home value in an adjacent HRS core survey. If neither (a) or (b) is true and a household reported positive rent spending in CAMS then the household is considered a renter household and the home rental equivalent is set to zero (HwCCHREQF=0). If a person is currently paying a mortgage and has a positive home value in the previous HRS wave but has a missing or zero value in the following HRS wave, then the previous wave home value is used (HwCCHREQF=1). If a person is currently paying a mortgage and has a positive home value in the following HRS wave but has a missing or zero value in the previous HRS wave, then the following wave home value is used (HwCCHREQF=2). If a person has positive home values in both the previous and following HRS waves, then the rental equivalent is based on the average of those home values (HwCCHREQF=3). If a person is not currently paying a mortgage and only one adjacent HRS wave is positive and the other wave is zero or missing, then half of the reported home value in the non-missing wave is used as this is considered an ownership transition (HwCCHREQF=4). We consider this household to be transitioning to or from home ownership at the time of the CAMS survey. The home rental equivalent is imputed from the homeowner population (HwCCHREQF=5) if a homeowner has missing or zero home values in both adjacent waves. If a person is not a homeowner as described above and reports no rent, then the home rental equivalent is imputed from the entire population (HwCCHREQF=6). It is assumed that these households have rent or mortgage paid on their behalf, but they still consume housing services. Once the base home value is calculated, it is subject to the depreciation and interest rates described above and in "1.8 Components of Household Spending and Consumption."

RAND HRS Longitudinal File 2020 (V1) Variables Used

```
RABYEAR    RABYEAR: R birth year
RAEDUC     RAEDUC: R education (categ)
RAGENDER   RAGENDER: R Gender
H5AHOUS    H5AHOUS:W5 Assets:Primary Residence--Cross-wave
H6AHOUS    H6AHOUS:W6 Assets:Primary Residence--Cross-wave
H7AHOUS    H7AHOUS:W7 Assets:Primary Residence--Cross-wave
H8AHOUS    H8AHOUS:W8 Assets:Primary Residence--Cross-wave
H9AHOUS    H9AHOUS:W9 Assets:Primary Residence--Cross-wave
H10AHOUS   H10AHOUS:W10 Assets:Primary Residence--Cross-wave
H11AHOUS   H11AHOUS:W11 Assets:Primary Residence--Cross-wave
H12AHOUS   H12AHOUS:W12 Assets:Primary Residence--Cross-wave
H13AHOUS   H13AHOUS:W13 Assets:Primary Residence--Cross-wave
H14AHOUS   H14AHOUS:W14 Assets:Primary Residence--Cross-wave
H5ATOTB    H5ATOTB:W5 Total of all Assets--Cross-wave
H6ATOTB    H6ATOTB:W6 Total of all Assets--Cross-wave
H7ATOTB    H7ATOTB:W7 Total of all Assets--Cross-wave
H8ATOTB    H8ATOTB:W8 Total of all Assets--Cross-wave
```

```
H9ATOTB    H9ATOTB:W9 Total of all Assets--Cross-wave
H10ATOTB   H10ATOTB:W10 Total of all Assets--Cross-wave
H11ATOTB   H11ATOTB:W11 Total of all Assets--Cross-wave
H12ATOTB   H12ATOTB:W12 Total of all Assets--Cross-wave
H13ATOTB   H13ATOTB:W13 Total of all Assets--Cross-wave
H14ATOTB   H14ATOTB:W14 Total of all Assets--Cross-wave
H5HHRES    H5HHRES:W5 Number of people in HH
H6HHRES    H6HHRES:W6 Number of people in HH
H7HHRES    H7HHRES:W7 Number of people in HH
H8HHRES    H8HHRES:W8 Number of people in HH
H9HHRES    H9HHRES:W9 Number of people in HH
H10HHRES   H10HHRES:W10 Number of people in HH
H11HHRES   H11HHRES:W11 Number of people in HH
H12HHRES   H12HHRES:W12 Number of people in HH
H13HHRES   H13HHRES:W13 Number of people in HH
H14HHRES   H14HHRES:W14 Number of people in HH
H5ITOT     H5ITOT:W5 Income: Total HHold / R+Sp only
H6ITOT     H6ITOT:W6 Income: Total HHold / R+Sp only
H7ITOT     H7ITOT:W7 Income: Total HHold / R+Sp only
H8ITOT     H8ITOT:W8 Income: Total HHold / R+Sp only
H9ITOT     H9ITOT:W9 Income: Total HHold / R+Sp only
H10ITOT    H10ITOT:W10 Income: Total HHold / R+Sp only
H11ITOT    H11ITOT:W11 Income: Total HHold / R+Sp only
H12ITOT    H12ITOT:W12 Income: Total HHold / R+Sp only
H13ITOT    H13ITOT:W13 Income: Total HHold / R+Sp only
H14ITOT    H14ITOT:W14 Income: Total HHold / R+Sp only
```

CAMS Variables Used

```
CAMS 2001:
    B10A_01        B10A. RENT - PER
    B10_01         B10. RENT
    B19A_01        B19A. HOME MAINTAIN - PER
    B19_01         B19. HOME MAINTAIN
    B8A_01         B8A. HOME/RENT INS - PER
    B8_01          B8. HOME/RENT INS.
    B9A_01         B9A. PROPERTY TAX - PER
    B9_01          B9. PROPERTY TAX
CAMS 2003:
    B14A_03        B14A. RENT - PER
    B14_03         B14. RENT
    B24A_03        B24A. HOME REPAIRS/MAINTENANCE DIY - PER
    B24_03         B24. HOME REPAIRS/MAINTENANCE DIY
    B25A_03        B25A. HOME REPAIRS/MAINTENANCE SERVICE - PER
    B25_03         B25. HOME REPAIRS/MAINTENANCE SERVICES
CAMS2003-2019:
    B7_YR          B7. HOME/RENTERS INSURANCE
    B8_YR          B8. PROPERTY TAXES
CAMS2005-2019:
    B13_YR         B13. HOME REPAIRS/MAINTENANCE DIY
    B14_YR         B14. HOME REPAIRS/MAINTENANCE SERVICES
    B19A_YR        B19A. RENT - PER
    B19_YR         B19. RENT
```

2.17 Category-level Flags

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSDISHWF	3847	0.04	0.28	0.0	2.0
H6CSDISHWF	3248	0.04	0.28	0.0	2.0
H7CSDISHWF	3864	0.05	0.30	0.0	2.0
H8CSDISHWF	3727	0.06	0.33	0.0	2.0
H9CSDISHWF	3577	0.02	0.21	0.0	2.0
H10CSDISHWF	4353	0.03	0.23	0.0	2.0
H11CSDISHWF	4047	0.03	0.23	0.0	2.0
H12CSDISHWF	3729	0.02	0.21	0.0	2.0
H13CSDISHWF	3487	0.02	0.21	0.0	2.0
H14CSDISHWF	3301	0.02	0.20	0.0	2.0
H5CSFRIDGEF	3844	0.06	0.34	0.0	2.0
H6CSFRIDGEF	3246	0.09	0.41	0.0	2.0
H7CSFRIDGEF	3864	0.10	0.44	0.0	2.0
H8CSFRIDGEF	3725	0.06	0.34	0.0	2.0
H9CSFRIDGEF	3576	0.03	0.23	0.0	2.0
H10CSFRIDGEF	4355	0.03	0.24	0.0	2.0
H11CSFRIDGEF	4048	0.04	0.25	0.0	2.0
H12CSFRIDGEF	3728	0.03	0.22	0.0	2.0
H13CSFRIDGEF	3485	0.03	0.23	0.0	2.0
H14CSFRIDGEF	3301	0.03	0.22	0.0	2.0
H5CSWASHDRYF	3845	0.04	0.26	0.0	2.0
H6CSWASHDRYF	3247	0.05	0.29	0.0	2.0
H7CSWASHDRYF	3865	0.06	0.33	0.0	2.0
H8CSWASHDRYF	3726	0.06	0.33	0.0	2.0
H9CSWASHDRYF	3576	0.03	0.22	0.0	2.0
H10CSWASHDRYF	4352	0.03	0.23	0.0	2.0
H11CSWASHDRYF	4048	0.03	0.23	0.0	2.0
H12CSWASHDRYF	3728	0.02	0.21	0.0	2.0
H13CSWASHDRYF	3486	0.03	0.22	0.0	2.0
H14CSWASHDRYF	3300	0.02	0.21	0.0	2.0
H5CSPCF	3845	0.05	0.30	0.0	2.0
H6CSPCF	3246	0.05	0.31	0.0	2.0
H7CSPCF	3865	0.05	0.31	0.0	2.0
H8CSPCF	3728	0.06	0.33	0.0	2.0
H9CSPCF	3576	0.03	0.22	0.0	2.0
H10CSPCF	4352	0.03	0.24	0.0	2.0
H11CSPCF	4046	0.03	0.23	0.0	2.0
H12CSPCF	3727	0.02	0.20	0.0	2.0
H13CSPCF	3487	0.03	0.22	0.0	2.0
H14CSPCF	3302	0.03	0.21	0.0	2.0
H5CSTVF	3844	0.05	0.31	0.0	2.0
H6CSTVF	3248	0.05	0.30	0.0	2.0
H7CSTVF	3862	0.06	0.32	0.0	2.0
H8CSTVF	3726	0.06	0.33	0.0	2.0
H9CSTVF	3578	0.03	0.24	0.0	2.0
H10CSTVF	4352	0.04	0.24	0.0	2.0
H11CSTVF	4046	0.03	0.24	0.0	2.0
H12CSTVF	3729	0.02	0.20	0.0	2.0

```
H13CSTVF            3486    0.03    0.22    0.0    2.0
H14CSTVF            3301    0.02    0.20    0.0    2.0


H5CSCASHGIFTF       3790    0.04    0.20    0.0    1.0
H6CSCASHGIFTF       3225    0.04    0.19    0.0    1.0
H7CSCASHGIFTF       3835    0.04    0.19    0.0    1.0
H8CSCASHGIFTF       3704    0.04    0.19    0.0    1.0
H9CSCASHGIFTF       3550    0.03    0.18    0.0    1.0
H10CSCASHGIFTF      4320    0.03    0.17    0.0    1.0
H11CSCASHGIFTF      4018    0.04    0.19    0.0    1.0
H12CSCASHGIFTF      3689    0.03    0.17    0.0    1.0
H13CSCASHGIFTF      3454    0.03    0.18    0.0    1.0
H14CSCASHGIFTF      3264    0.04    0.19    0.0    1.0


H5CSCLOTHF          3790    0.04    0.20    0.0    1.0
H6CSCLOTHF          3225    0.03    0.18    0.0    1.0
H7CSCLOTHF          3832    0.05    0.22    0.0    1.0
H8CSCLOTHF          3706    0.05    0.21    0.0    1.0
H9CSCLOTHF          3551    0.04    0.19    0.0    1.0
H10CSCLOTHF         4319    0.04    0.19    0.0    1.0
H11CSCLOTHF         4017    0.05    0.22    0.0    1.0
H12CSCLOTHF         3689    0.03    0.17    0.0    1.0
H13CSCLOTHF         3455    0.03    0.18    0.0    1.0
H14CSCLOTHF         3265    0.03    0.18    0.0    1.0


H5CSCONTSF          3790    0.04    0.19    0.0    1.0
H6CSCONTSF          3225    0.04    0.20    0.0    1.0
H7CSCONTSF          3836    0.04    0.19    0.0    1.0
H8CSCONTSF          3705    0.04    0.19    0.0    1.0
H9CSCONTSF          3550    0.03    0.18    0.0    1.0
H10CSCONTSF         4319    0.03    0.18    0.0    1.0
H11CSCONTSF         4018    0.04    0.20    0.0    1.0
H12CSCONTSF         3689    0.03    0.18    0.0    1.0
H13CSCONTSF         3454    0.03    0.18    0.0    1.0
H14CSCONTSF         3264    0.04    0.19    0.0    1.0


H5CSDINOUTF         3790    0.04    0.18    0.0    1.0
H6CSDINOUTF         3225    0.04    0.19    0.0    1.0
H7CSDINOUTF         3833    0.04    0.19    0.0    1.0
H8CSDINOUTF         3704    0.03    0.18    0.0    1.0
H9CSDINOUTF         3551    0.04    0.19    0.0    1.0
H10CSDINOUTF        4321    0.03    0.18    0.0    1.0
H11CSDINOUTF        4018    0.04    0.18    0.0    1.0
H12CSDINOUTF        3689    0.03    0.16    0.0    1.0
H13CSDINOUTF        3454    0.03    0.16    0.0    1.0
H14CSDINOUTF        3265    0.03    0.17    0.0    1.0


H5CSDRUGSF          3792    0.04    0.19    0.0    1.0
H6CSDRUGSF          3226    0.03    0.18    0.0    1.0
H7CSDRUGSF          3832    0.05    0.22    0.0    1.0
H8CSDRUGSF          3704    0.05    0.22    0.0    1.0
H9CSDRUGSF          3550    0.05    0.22    0.0    1.0
H10CSDRUGSF         4319    0.05    0.21    0.0    1.0
H11CSDRUGSF         4019    0.06    0.24    0.0    1.0
H12CSDRUGSF         3689    0.04    0.20    0.0    1.0
H13CSDRUGSF         3455    0.04    0.19    0.0    1.0
H14CSDRUGSF         3264    0.03    0.18    0.0    1.0


H5CSELECTRICF       3796    0.06    0.24    0.0    1.0
```

```
H6CSELECTRICF      3224      0.06      0.23      0.0      1.0
H7CSELECTRICF      3832      0.04      0.21      0.0      1.0
H8CSELECTRICF      3705      0.04      0.20      0.0      1.0
H9CSELECTRICF      3552      0.04      0.20      0.0      1.0
H10CSELECTRICF     4320      0.04      0.20      0.0      1.0
H11CSELECTRICF     4017      0.05      0.21      0.0      1.0
H12CSELECTRICF     3689      0.04      0.19      0.0      1.0
H13CSELECTRICF     3456      0.04      0.19      0.0      1.0
H14CSELECTRICF     3265      0.04      0.21      0.0      1.0


H5CSFDBEVF         3790      0.04      0.18      0.0      1.0
H6CSFDBEVF         3225      0.05      0.21      0.0      1.0
H7CSFDBEVF         3833      0.04      0.20      0.0      1.0
H8CSFDBEVF         3704      0.04      0.19      0.0      1.0
H9CSFDBEVF         3551      0.04      0.20      0.0      1.0
H10CSFDBEVF        4322      0.04      0.19      0.0      1.0
H11CSFDBEVF        4019      0.04      0.19      0.0      1.0
H12CSFDBEVF        3689      0.03      0.17      0.0      1.0
H13CSFDBEVF        3456      0.03      0.17      0.0      1.0
H14CSFDBEVF        3266      0.04      0.19      0.0      1.0


H5CSHEATF          3792      0.12      0.33      0.0      1.0
H6CSHEATF          3224      0.11      0.31      0.0      1.0
H7CSHEATF          3832      0.09      0.29      0.0      1.0
H8CSHEATF          3705      0.09      0.28      0.0      1.0
H9CSHEATF          3551      0.08      0.28      0.0      1.0
H10CSHEATF         4320      0.08      0.28      0.0      1.0
H11CSHEATF         4017      0.09      0.28      0.0      1.0
H12CSHEATF         3689      0.07      0.25      0.0      1.0
H13CSHEATF         3455      0.07      0.26      0.0      1.0
H14CSHEATF         3264      0.07      0.25      0.0      1.0


H5CSHLTHINSF       3791      0.07      0.26      0.0      1.0
H6CSHLTHINSF       3225      0.07      0.26      0.0      1.0
H7CSHLTHINSF       3832      0.08      0.26      0.0      1.0
H8CSHLTHINSF       3705      0.07      0.25      0.0      1.0
H9CSHLTHINSF       3552      0.07      0.26      0.0      1.0
H10CSHLTHINSF      4319      0.07      0.26      0.0      1.0
H11CSHLTHINSF      4019      0.07      0.26      0.0      1.0
H12CSHLTHINSF      3690      0.07      0.25      0.0      1.0
H13CSHLTHINSF      3455      0.07      0.26      0.0      1.0
H14CSHLTHINSF      3264      0.07      0.25      0.0      1.0


H5CSHLTHSVCF       3791      0.05      0.21      0.0      1.0
H6CSHLTHSVCF       3224      0.05      0.22      0.0      1.0
H7CSHLTHSVCF       3833      0.05      0.22      0.0      1.0
H8CSHLTHSVCF       3704      0.06      0.23      0.0      1.0
H9CSHLTHSVCF       3550      0.05      0.21      0.0      1.0
H10CSHLTHSVCF      4319      0.05      0.21      0.0      1.0
H11CSHLTHSVCF      4020      0.06      0.24      0.0      1.0
H12CSHLTHSVCF      3689      0.04      0.19      0.0      1.0
H13CSHLTHSVCF      3454      0.04      0.19      0.0      1.0
H14CSHLTHSVCF      3264      0.05      0.22      0.0      1.0


H5CSMEDSUPF        3791      0.06      0.24      0.0      1.0
H6CSMEDSUPF        3224      0.07      0.26      0.0      1.0
H7CSMEDSUPF        3832      0.07      0.26      0.0      1.0
H8CSMEDSUPF        3704      0.07      0.26      0.0      1.0
H9CSMEDSUPF        3550      0.06      0.24      0.0      1.0
```

```
H10CSMEDSUPF      4319      0.06      0.24      0.0      1.0
H11CSMEDSUPF      4021      0.06      0.24      0.0      1.0
H12CSMEDSUPF      3689      0.06      0.23      0.0      1.0
H13CSMEDSUPF      3455      0.05      0.22      0.0      1.0
H14CSMEDSUPF      3264      0.06      0.23      0.0      1.0

H5CSTELECOMF      3794      0.05      0.21      0.0      1.0
H6CSTELECOMF      3224      0.04      0.19      0.0      1.0
H7CSTELECOMF      3832      0.03      0.18      0.0      1.0
H8CSTELECOMF      3705      0.03      0.18      0.0      1.0
H9CSTELECOMF      3551      0.03      0.18      0.0      1.0
H10CSTELECOMF     4321      0.03      0.18      0.0      1.0
H11CSTELECOMF     4017      0.04      0.20      0.0      1.0
H12CSTELECOMF     3689      0.03      0.18      0.0      1.0
H13CSTELECOMF     3456      0.04      0.20      0.0      1.0
H14CSTELECOMF     3264      0.04      0.19      0.0      1.0

H5CSTICKETF       3792      0.03      0.18      0.0      1.0
H6CSTICKETF       3224      0.03      0.17      0.0      1.0
H7CSTICKETF       3835      0.03      0.17      0.0      1.0
H8CSTICKETF       3705      0.03      0.18      0.0      1.0
H9CSTICKETF       3550      0.02      0.15      0.0      1.0
H10CSTICKETF      4320      0.02      0.15      0.0      1.0
H11CSTICKETF      4018      0.03      0.16      0.0      1.0
H12CSTICKETF      3690      0.02      0.14      0.0      1.0
H13CSTICKETF      3455      0.02      0.15      0.0      1.0
H14CSTICKETF      3265      0.03      0.16      0.0      1.0

H5CSTRIPVACF      3791      0.04      0.19      0.0      1.0
H6CSTRIPVACF      3224      0.05      0.21      0.0      1.0
H7CSTRIPVACF      3834      0.04      0.21      0.0      1.0
H8CSTRIPVACF      3705      0.03      0.18      0.0      1.0
H9CSTRIPVACF      3553      0.03      0.16      0.0      1.0
H10CSTRIPVACF     4321      0.03      0.18      0.0      1.0
H11CSTRIPVACF     4018      0.04      0.20      0.0      1.0
H12CSTRIPVACF     3691      0.04      0.19      0.0      1.0
H13CSTRIPVACF     3455      0.04      0.19      0.0      1.0
H14CSTRIPVACF     3265      0.04      0.19      0.0      1.0

H5CSWATERF        3795      0.09      0.29      0.0      1.0
H6CSWATERF        3224      0.08      0.27      0.0      1.0
H7CSWATERF        3833      0.06      0.24      0.0      1.0
H8CSWATERF        3704      0.06      0.23      0.0      1.0
H9CSWATERF        3552      0.05      0.22      0.0      1.0
H10CSWATERF       4320      0.05      0.22      0.0      1.0
H11CSWATERF       4017      0.06      0.23      0.0      1.0
H12CSWATERF       3689      0.05      0.21      0.0      1.0
H13CSWATERF       3455      0.04      0.21      0.0      1.0
H14CSWATERF       3265      0.05      0.22      0.0      1.0

H6CSPRSCAREF      3225      0.03      0.16      0.0      1.0
H7CSPRSCAREF      3832      0.04      0.20      0.0      1.0
H8CSPRSCAREF      3705      0.04      0.19      0.0      1.0
H9CSPRSCAREF      3550      0.04      0.19      0.0      1.0
H10CSPRSCAREF     4319      0.03      0.17      0.0      1.0
H11CSPRSCAREF     4017      0.05      0.21      0.0      1.0
H12CSPRSCAREF     3689      0.02      0.16      0.0      1.0
H13CSPRSCAREF     3456      0.02      0.16      0.0      1.0
H14CSPRSCAREF     3265      0.03      0.16      0.0      1.0
```

H7CSFURNISHF	3833	0.04	0.19	0.0	1.0
H8CSFURNISHF	3704	0.04	0.19	0.0	1.0
H9CSFURNISHF	3551	0.03	0.16	0.0	1.0
H10CSFURNISHF	4319	0.03	0.18	0.0	1.0
H11CSFURNISHF	4018	0.04	0.18	0.0	1.0
H12CSFURNISHF	3689	0.03	0.17	0.0	1.0
H13CSFURNISHF	3458	0.03	0.18	0.0	1.0
H14CSFURNISHF	3264	0.04	0.19	0.0	1.0
H5CSHOBSPORTF	3791	0.04	0.20	0.0	1.0
H6CSHOBBYF	3224	0.03	0.18	0.0	1.0
H7CSHOBBYF	3834	0.03	0.17	0.0	1.0
H8CSHOBBYF	3705	0.04	0.19	0.0	1.0
H9CSHOBBYF	3550	0.02	0.15	0.0	1.0
H10CSHOBBYF	4319	0.02	0.15	0.0	1.0
H11CSHOBBYF	4018	0.03	0.16	0.0	1.0
H12CSHOBBYF	3691	0.02	0.16	0.0	1.0
H13CSHOBBYF	3454	0.02	0.15	0.0	1.0
H14CSHOBBYF	3266	0.03	0.16	0.0	1.0
H6CSSPORTF	3224	0.03	0.17	0.0	1.0
H7CSSPORTF	3836	0.03	0.17	0.0	1.0
H8CSSPORTF	3706	0.03	0.18	0.0	1.0
H9CSSPORTF	3550	0.02	0.15	0.0	1.0
H10CSSPORTF	4320	0.02	0.14	0.0	1.0
H11CSSPORTF	4018	0.02	0.16	0.0	1.0
H12CSSPORTF	3692	0.02	0.15	0.0	1.0
H13CSSPORTF	3455	0.02	0.15	0.0	1.0
H14CSSPORTF	3265	0.03	0.16	0.0	1.0
H5CSHKYRDSUPF	3789	0.05	0.21	0.0	1.0
H6CSYRDSUPF	3224	0.03	0.18	0.0	1.0
H7CSYRDSUPF	3832	0.04	0.20	0.0	1.0
H8CSYRDSUPF	3704	0.05	0.21	0.0	1.0
H9CSYRDSUPF	3550	0.03	0.17	0.0	1.0
H10CSYRDSUPF	4319	0.03	0.17	0.0	1.0
H11CSYRDSUPF	4017	0.05	0.22	0.0	1.0
H12CSYRDSUPF	3690	0.03	0.18	0.0	1.0
H13CSYRDSUPF	3454	0.03	0.17	0.0	1.0
H14CSYRDSUPF	3265	0.03	0.18	0.0	1.0
H6CSYRDSVCF	3224	0.03	0.17	0.0	1.0
H7CSYRDSVCF	3832	0.03	0.18	0.0	1.0
H8CSYRDSVCF	3705	0.03	0.18	0.0	1.0
H9CSYRDSVCF	3550	0.03	0.17	0.0	1.0
H10CSYRDSVCF	4319	0.03	0.18	0.0	1.0
H11CSYRDSVCF	4018	0.04	0.20	0.0	1.0
H12CSYRDSVCF	3689	0.02	0.15	0.0	1.0
H13CSYRDSVCF	3454	0.03	0.17	0.0	1.0
H14CSYRDSVCF	3266	0.03	0.16	0.0	1.0
H6CSHKSUPF	3224	0.04	0.19	0.0	1.0
H7CSHKSUPF	3833	0.04	0.21	0.0	1.0
H8CSHKSUPF	3705	0.04	0.19	0.0	1.0
H9CSHKSUPF	3553	0.03	0.18	0.0	1.0
H10CSHKSUPF	4319	0.03	0.18	0.0	1.0

```
H11CSHKSUPF      4017      0.05      0.21      0.0      1.0
H12CSHKSUPF      3689      0.04      0.18      0.0      1.0
H13CSHKSUPF      3456      0.04      0.19      0.0      1.0
H14CSHKSUPF      3265      0.03      0.18      0.0      1.0


H6CSHKSVCF       3224      0.03      0.17      0.0      1.0
H7CSHKSVCF       3832      0.04      0.19      0.0      1.0
H8CSHKSVCF       3705      0.04      0.19      0.0      1.0
H9CSHKSVCF       3550      0.03      0.16      0.0      1.0
H10CSHKSVCF      4319      0.03      0.17      0.0      1.0
H11CSHKSVCF      4017      0.04      0.21      0.0      1.0
H12CSHKSVCF      3690      0.03      0.17      0.0      1.0
H13CSHKSVCF      3454      0.03      0.17      0.0      1.0
H14CSHKSVCF      3265      0.03      0.17      0.0      1.0


H5CSCARALLF      3843      0.08      0.36      0.0      2.0
H6CSCARALLF      3246      0.11      0.43      0.0      2.0
H7CSCARALLF      3863      0.13      0.47      0.0      2.0
H8CSCARALLF      3726      0.10      0.42      0.0      2.0
H9CSCARALLF      3577      0.08      0.37      0.0      2.0
H10CSCARALLF     4350      0.08      0.38      0.0      2.0
H11CSCARALLF     4043      0.09      0.39      0.0      2.0
H12CSCARALLF     3725      0.07      0.35      0.0      2.0
H13CSCARALLF     3486      0.07      0.34      0.0      2.0
H14CSCARALLF     3299      0.07      0.34      0.0      2.0


H5CSCARINSF      3793      0.06      0.25      0.0      1.0
H6CSCARINSF      3224      0.08      0.27      0.0      1.0
H7CSCARINSF      3832      0.08      0.26      0.0      1.0
H8CSCARINSF      3705      0.06      0.23      0.0      1.0
H9CSCARINSF      3551      0.06      0.25      0.0      1.0
H10CSCARINSF     4319      0.07      0.25      0.0      1.0
H11CSCARINSF     4018      0.07      0.25      0.0      1.0
H12CSCARINSF     3690      0.07      0.25      0.0      1.0
H13CSCARINSF     3454      0.08      0.27      0.0      1.0
H14CSCARINSF     3266      0.07      0.26      0.0      1.0


H5CSCARMNTF      3789      0.05      0.22      0.0      1.0
H6CSCARMNTF      3225      0.07      0.25      0.0      1.0
H7CSCARMNTF      3832      0.06      0.23      0.0      1.0
H8CSCARMNTF      3705      0.05      0.21      0.0      1.0
H9CSCARMNTF      3550      0.05      0.22      0.0      1.0
H10CSCARMNTF     4319      0.05      0.22      0.0      1.0
H11CSCARMNTF     4018      0.05      0.23      0.0      1.0
H12CSCARMNTF     3690      0.05      0.22      0.0      1.0
H13CSCARMNTF     3455      0.05      0.23      0.0      1.0
H14CSCARMNTF     3266      0.05      0.22      0.0      1.0


H5CSCARFINF      3791      0.12      0.33      0.0      1.0


H6CSCARPAYF      3224      0.04      0.21      0.0      1.0
H7CSCARPAYF      3833      0.04      0.21      0.0      1.0
H8CSCARPAYF      3706      0.04      0.19      0.0      1.0
H9CSCARPAYF      3551      0.03      0.17      0.0      1.0
H10CSCARPAYF     4320      0.03      0.18      0.0      1.0
H11CSCARPAYF     4018      0.04      0.19      0.0      1.0
H12CSCARPAYF     3689      0.03      0.17      0.0      1.0
H13CSCARPAYF     3454      0.03      0.18      0.0      1.0
H14CSCARPAYF     3264      0.04      0.19      0.0      1.0
```

```
H5CSGASF          3789     0.05     0.22     0.0      1.0
H6CSGASF          3224     0.05     0.22     0.0      1.0
H7CSGASF          3833     0.05     0.21     0.0      1.0
H8CSGASF          3704     0.04     0.18     0.0      1.0
H9CSGASF          3552     0.04     0.19     0.0      1.0
H10CSGASF         4321     0.03     0.18     0.0      1.0
H11CSGASF         4019     0.04     0.19     0.0      1.0
H12CSGASF         3689     0.03     0.16     0.0      1.0
H13CSGASF         3456     0.03     0.16     0.0      1.0
H14CSGASF         3265     0.03     0.17     0.0      1.0

H5CSHRINSF        3795     0.10     0.30     0.0      1.0
H6CSHRINSF        3224     0.08     0.27     0.0      1.0
H7CSHRINSF        3832     0.08     0.27     0.0      1.0
H8CSHRINSF        3705     0.06     0.24     0.0      1.0
H9CSHRINSF        3553     0.06     0.24     0.0      1.0
H10CSHRINSF       4321     0.07     0.25     0.0      1.0
H11CSHRINSF       4019     0.07     0.26     0.0      1.0
H12CSHRINSF       3691     0.06     0.24     0.0      1.0
H13CSHRINSF       3456     0.08     0.26     0.0      1.0
H14CSHRINSF       3266     0.07     0.26     0.0      1.0

H5CSRENTF         3796     0.12     0.32     0.0      1.0
H6CSRENTF         3225     0.09     0.29     0.0      1.0
H7CSRENTF         3836     0.07     0.26     0.0      1.0
H8CSRENTF         3707     0.06     0.24     0.0      1.0
H9CSRENTF         3551     0.06     0.23     0.0      1.0
H10CSRENTF        4323     0.06     0.24     0.0      1.0
H11CSRENTF        4018     0.07     0.25     0.0      1.0
H12CSRENTF        3690     0.06     0.23     0.0      1.0
H13CSRENTF        3454     0.06     0.23     0.0      1.0
H14CSRENTF        3267     0.06     0.24     0.0      1.0

H5CSPTAXF         3791     0.10     0.30     0.0      1.0
H6CSPTAXF         3224     0.08     0.27     0.0      1.0
H7CSPTAXF         3832     0.07     0.26     0.0      1.0
H8CSPTAXF         3704     0.06     0.25     0.0      1.0
H9CSPTAXF         3551     0.06     0.24     0.0      1.0
H10CSPTAXF        4319     0.07     0.25     0.0      1.0
H11CSPTAXF        4018     0.08     0.26     0.0      1.0
H12CSPTAXF        3690     0.07     0.25     0.0      1.0
H13CSPTAXF        3455     0.07     0.26     0.0      1.0
H14CSPTAXF        3264     0.07     0.26     0.0      1.0

H5CSMORTINTF      3800     0.06     0.25     0.0      1.0
H6CSMORTINTF      3225     0.07     0.25     0.0      1.0
H7CSMORTINTF      3834     0.05     0.22     0.0      1.0
H8CSMORTINTF      3706     0.05     0.22     0.0      1.0
H9CSMORTINTF      3550     0.04     0.21     0.0      1.0
H10CSMORTINTF     4320     0.05     0.22     0.0      1.0
H11CSMORTINTF     4019     0.06     0.24     0.0      1.0
H12CSMORTINTF     3689     0.05     0.22     0.0      1.0
H13CSMORTINTF     3455     0.06     0.23     0.0      1.0
H14CSMORTINTF     3268     0.05     0.22     0.0      1.0

H5CSHREPMNTF      3790     0.04     0.21     0.0      1.0

H6CSHREPSUPF      3225     0.05     0.22     0.0      1.0
```

H7CSHREPSUPF	3834	0.05	0.22	0.0	1.0
H8CSHREPSUPF	3704	0.04	0.20	0.0	1.0
H9CSHREPSUPF	3550	0.04	0.20	0.0	1.0
H10CSHREPSUPF	4319	0.04	0.20	0.0	1.0
H11CSHREPSUPF	4018	0.04	0.21	0.0	1.0
H12CSHREPSUPF	3689	0.04	0.19	0.0	1.0
H13CSHREPSUPF	3457	0.04	0.20	0.0	1.0
H14CSHREPSUPF	3264	0.04	0.20	0.0	1.0
H5CSMORTF	3800	0.06	0.25	0.0	1.0
H6CSMORTF	3225	0.07	0.25	0.0	1.0
H7CSMORTF	3834	0.05	0.22	0.0	1.0
H8CSMORTF	3706	0.05	0.22	0.0	1.0
H9CSMORTF	3550	0.04	0.21	0.0	1.0
H10CSMORTF	4320	0.05	0.22	0.0	1.0
H11CSMORTF	4019	0.06	0.24	0.0	1.0
H12CSMORTF	3689	0.05	0.22	0.0	1.0
H13CSMORTF	3455	0.06	0.23	0.0	1.0
H14CSMORTF	3268	0.05	0.22	0.0	1.0

Categorical Variable Codes

HwCSDISHWF: CAMSFlag Dishwasher Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						19	6	15	11	10	17
0. No imputation						3758	3167	3763	3608	3524	4279
1. Regression imputation						19	19	16	21	18	22
2. Imputation to zero						70	62	85	98	35	52

Value		w11	w12	w13	w14
.T=Resp <10 cat		20	8	19	22
0. No imputation		3978	3680	3437	3257
1. Regression imputation		20	12	17	16
2. Imputation to zero		49	37	33	28

HwCSFRIDGEF: CAMSFlag Refrigerator Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						22	8	15	13	11	15
0. No imputation						3712	3089	3658	3595	3509	4276
1. Regression imputation						20	15	17	27	23	18
2. Imputation to zero						112	142	189	103	44	61

Value		w11	w12	w13	w14
.T=Resp <10 cat		19	9	21	22
0. No imputation		3961	3668	3424	3245
1. Regression imputation		27	19	21	21
2. Imputation to zero		60	41	40	35

HwCSWASHDRYF: CAMSFlag Washer/Dryer Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						21	7	14	12	11	18
0. No imputation						3766	3162	3739	3610	3512	4270
1. Regression imputation						14	18	21	16	24	30
2. Imputation to zero						65	67	105	100	40	52

Value		w11	w12	w13	w14
.T=Resp <10 cat		19	9	20	23
0. No imputation		3971	3672	3425	3248
1. Regression imputation		29	20	25	22
2. Imputation to zero		48	36	36	30

HwCSPCF: CAMSFlag Computer Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						21	8	14	10	11	18
0. No imputation						3737	3143	3748	3608	3510	4256
1. Regression imputation						28	29	27	22	30	42
2. Imputation to zero						80	74	90	98	36	54

Value		w11	w12	w13	w14
.T=Resp <10 cat		21	10	19	21
0. No imputation		3964	3669	3429	3250
1. Regression imputation		35	26	21	20
2. Imputation to zero		47	32	37	32

HwCSTVF: CAMSFlag Television Spending

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						22	6	17	12	9	18
0. No imputation						3730	3151	3735	3595	3492	4251
1. Regression imputation						24	28	35	32	47	49
2. Imputation to zero						90	69	92	99	39	52

Value		w11	w12	w13	w14
.T=Resp <10 cat		21	8	20	22
0. No imputation		3958	3673	3427	3249
1. Regression imputation		38	22	23	24
2. Imputation to zero		50	34	36	28

General Comments

All category-level variables have a flag indicating if it was regression or zero-imputed (in the case of durables).

How Constructed

Spending variable flags have the same name as the spending variable with the addition of the suffix "F."

If a spending variable is not revised other than annualization, its flag is set to "0. No imputation." If a spending variable is imputed with its predicted value from regression, its flag is set to "1. Regression imputation."

For durable spending, the Respondent is asked to indicate whether the household purchased the item in the past 12 months, and, to the best of their ability, provide the purchase price. If the Respondent does not indicate whether their household purchased a durable good, it is assumed that there was no purchase and the purchase price is set to zero and its flag is set to "2. Imputation to zero."

Respondents with non-missing values for fewer than ten spending categories (identified by HwC10REP=0) have all spending flags set to ".T=Resp <10 cat" as these observations are ineligible for regression imputation.

Please see "1.11 Cleaning and Imputation of Spending Variables" for more information on the revision of variable values.

Appendix

Section A: ID Adjustments

Three Respondents to CAMS Part B in 2005 did not respond to any HRS core survey. Their spouses, however, did respond to an HRS survey for two of the three cases. For these observations, we use the spouse's HHIDPN so that these records can be merged to the HRS files. One case, HHIDPN=500416010, responded to CAMS 2005 and has a spouse who responded to an HRS survey, but has been dropped from the RAND HRS CAMS Data File for two reasons. First, the Respondent claimed that his marital status was divorced in CAMS 2005, so switching to the spouse ID would be unwarranted as his marriage had dissolved, and the spending data most likely did not represent the spouse. Second, this Respondent only gave one spending amount (drug purchases) out of all 32 categories, so he did not provide a complete spending report.

Likewise, five Respondents to CAMS Part B in 2019 did not respond to any HRS core survey and their HHIDPNs are changed to their spouses' HHIDPN.

Here are a list of swapped HHIDPNs in 2005 and 2019:

HHIDPN=501992020 changed to 501992010 for CAMS 2005
HHIDPN=501980010 changed to 501980020 for CAMS 2005
HHIDPN=540697020 changed to 540697010 for CAMS 2019
HHIDPN=541537020 changed to 541537010 for CAMS 2019
HHIDPN=542911010 changed to 542911020 for CAMS 2019
HHIDPN=544225020 changed to 544225010 for CAMS 2019
HHIDPN=545408010 changed to 545698020 for CAMS 2019

One typo included on the Version 2.0 of the 2011 Consumption and Activities Mail Survey (CAMS) file was cleaned per the instructions of the HRS helpdesk:

```
if hhid="959734" then hhid="959733";
if hhidpn=959734010 then hhidpn=959733010;
```

Section B: Spending Adjustments

Based on data alerts from HRS, we have made several changes to cases in 2003. They are listed below.

```
if QNR03=23362 then do; B13=5273.00; end;
if QNR03=20465 then do; B17= 17.53;  end;
if QNR03=22679 then do; B38=225.00;  end;
if QNR03=20244 then do; B7 =663.84;  end;
if QNR03=20424 then do; B36A=3; B37A=3; B38A=3; end;
if QNR03=22401 then do; B18=36.33;  end;
if QNR03=24143 then do; B11=140.00; end;
if QNR03=22521 then do; B22A=1;B22A=1; end;
if QNR03=21863 then do; B14=723.00; end;
if QNR03=22030 then do; B11=600.00; end;
if QNR03=22855 then do; B18=48.00; B34=40; end;
if QNR03=21347 then do; B13=706.84; end;
if QNR03=23597 then do; B11=345; end;
if QNR03=22338 then do; B15a=2 ; end;
if QNR03=20743 then do; B25=13000; end;
if QNR03=22030 then do; B11=600; B14a=2; end;
if QNR03=23362 then do; B13=5273; end;
```

Several observations listed spending amounts but also reported a periodicity of "Not at all". These amounts are set to missing and then mean imputed as part of the winsorization process (see "1.11 Cleaning and Imputation of Spending Variables"). They are listed below:

HHIDPN=206680020 has mean-imputed H5CSGAS and H5CSCARMNT
HHIDPN=45699020 has mean-imputed H10CSTELECOM
HHIDPN=522045010 has mean-imputed H10CSMEDSUP
HHIDPN=84947010 has mean-imputed H11CSWATER
HHIDPN=529652010 has mean-imputed H11CSTELECOM
HHIDPN=148703010 has mean-imputed H13CSTELECOM
HHIDPN=911392010 has mean-imputed H13CSTELECOM
HHIDPN=78529010 has mean-imputed H13CSPRSCARE
HHIDPN=212259020 has mean-imputed H14CSTELECOM
HHIDPN=914429010 has mean-imputed H14CSDRUGS