

RAND HRS CAMS Data File 2021 (V1) Documentation

Includes 2001-2021 (Final Release)

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

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What's New in Version 2021 (V1) of the RAND HRS CAMS Data File?

Version 2021 (V1) incorporates the most recent versions of the CAMS survey files and the RAND HRS Longitudinal File 2020 (V2). The current versions of the CAMS surveys used in Version 2021 (V1) are:

- 2001 Final V3 (Apr 2011)
- 2003 Final V2 (Apr 2011)
- 2005 Final V1 (Dec 2006)
- 2007 Final V1 (Jul 2008)
- 2009 Final V1 (Apr 2010)
- 2011 Final V2 (Mar 2014)
- 2013 Final V2 (Oct 2015)
- 2015 Final V1 (Aug 2016)
- 2017 Final V1 (Oct 2018)
- 2019 Final V1 (Aug 2021)
- 2021 Final V1 (Oct 2023)
- Cross-Wave CAMS Weights Final V1.0 (Apr 2024)

We have made the following changes to the file:

- **CAMS 2021 Weights:** We added final household (H15CWGTHH) and Respondent-level (H15CWGTR) weights for CAMS 2021.
- **CAMS 2019 Consumption Variables:** We now include 2020 HRS core data in the imputation of the 2019 CAMS consumption variables (H14CCTOT, H14CCDUR, H14CCTRANS, H14CCHOUS and H14CCHREQF). CAMS 2021 (Wave 15) consumption variables are currently unavailable and will be released once 2022 HRS core data has been processed.
- **Revised Cleaning for Spending Amounts:** We have added additional spending amount cleaning to improve data quality. Please see the revised section "1.11 Cleaning and Imputation of Spending Variables" for a discussion of the new processes.
- **Revised Imputation for Spending Amounts:** We have updated our spending amount imputations to include the use of HRS core spending values. Please see the revised section "1.11 Cleaning and Imputation of Spending Variables" for a discussion of the new process.
- **Revised Flags for Spending Amounts:** As a result of revised spending amount imputations and cleaning, the values of our spending flags have changed. The data codebook indicates the new values in the frequency tables.

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. Ten more CAMS surveys were fielded in September 2003, October 2005, September 2007, September 2009, September 2011, fall 2013, fall 2015, fall 2017, fall 2019, and fall 2021, 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 2021 (V1).

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), 2019 (Version 1), and 2021 (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-mail to HRS Restricted Data Applications Processing (hrsdaapplication@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-products>).

¹Starting 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.

²In 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 eleven 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, fall 2019, and fall 2021, CAMS waves 2 to 11 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 2021, the sample consisted of everyone invited to participate in the 2019 CAMS who was alive in 2019 and who had not been permanently removed from the HRS or CAMS samples.

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, widowhood 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.sas7bcats`.

³Starting 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 2021 (V1) to the RAND HRS Longitudinal File 2020 (V2), 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_2020v2 (keep=HHIDPN [list of other variables])
          randcams.randcams_2001_2021v1;
    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 2021 (V1) to the Wave 5 RAND HRS Longitudinal File 2020 (V2), 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_2020v2 (where=(inw5=1)) out=randhrs5;
    by H5HHID;
run;
proc sort data=randcams.randcams_2001_2021v1 (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 on the RAND HRS Longitudinal File 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 in the RAND HRS Longitudinal File 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 but retain their reported amounts for the categories for which they did provide values.

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-CAMS21
<i>Durables</i>			
Refrigerator	B2	B2	B2
Washer/Dryer	B3	B3	B3
Dishwasher	B4	B4	B4
Television	B5	B5	B5
Computer	B6	B6	B6
<i>Nondurables</i>			
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
<i>Transportation</i>			
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
<i>Housing</i>			
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.

⁴This 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

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

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 15; 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 "15" as there are only eleven 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

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

⁶Source 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>.

⁷Source 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 HRS CAMS Data File 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

Few spending reports have been identified as needing cleaning of either amount or periodicity entries. Across all waves, 99% of the sample need two or fewer missing spending reports cleaned. 90.5% require no cleaning of any kind.

Cleaning per data alerts

We have implemented corrections identified by the HRS for CAMS 2001 and 2003 in their data entry review. These corrections are detailed in the HRS data alert found here: <https://hrsdata.isr.umich.edu/data-products/data-alerts/59560> .

Cleaning data inconsistencies

Occasionally, Respondents will report spending amounts that are inconsistent with the reported periodicity. This occurs when they report positive spending but check that the periodicity was "not at all." In these cases, we set both variables to missing and impute these values with regression imputation.

Utility cleaning

Starting in 2005, the CAMS survey captures whether certain payments include utilities to prevent double-counting. For example, the survey allows the Respondent to indicate whether their rent payment includes their water payment as well. If the Respondent flags this combined payment, then rent is kept at the reported value and water is set to zero if it is missing or greater than zero. This allows total spending to be accurate and eliminate any issues of double-counting. However, any category regression imputation cannot include these values as rent will be overstated and water will be undervalued. Therefore, these cases are excluded from the regression imputation sample. The following categories are the most likely to be combined:

- Rent: may include electricity, water, heat, or telecom

- Mortgage: may include property taxes or home/renters insurance
- Electricity: may include water or heat (or vice versa)

Cross-wave cleaning

Certain categories of spending are expected to have relatively consistent values across waves of CAMS data. We have identified rent, home/renters insurance, property tax, car insurance, electricity, water, heat, telecommunications and gasoline as categories that have stable spending over time. For these categories, we have developed an algorithm to identify cases that may have a decimal place error (\$100 instead of \$10,000) or a periodicity error (reported monthly instead of yearly values) that is causing a large change in spending over time.

In order to recognize that fluctuations may occur due to moving or other household changes, our algorithm flags only CAMS reports that are six times higher or lower than the adjacent CAMS wave and is in the top 10% or bottom 5% of all CAMS values in its own wave. If a change in periodicity (say from monthly to yearly) or a change in decimal places (say dividing by 100) brings the CAMS value within 20% of the adjacent CAMS wave, then the correction is made and the variable's spending flag notes the cleaning. For gasoline, the threshold is increased from 20% to 40% to account for the more irregular gasoline spending patterns in addition to the option of reporting weekly values along with the standard monthly and yearly amounts. Two spending categories, rent and property tax, also have adjacent HRS core values to detect any potential reporting errors.

Annualization of 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 after data cleaning.

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 that persist after data cleaning. It is difficult to derive an objective criterion to identify all 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.

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 4-stage imputation procedure: we first impute missing values with any available HRS core data from adjacent waves. We then 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

⁸The total number of categories queried varies across waves.

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 11, over 87% of households had at most five missing spending values out of a total of about 40 categories, and 58% of all households had no missing spending values at all.

Imputation Initial Steps

HRS core imputation

Several CAMS spending category values are also asked in the HRS core surveys. These include: mortgage, property tax, rent, contributions, food and beverage, dining out, and health insurance. These HRS core amounts are first annualized and any relevant imputations to zero are made (such as property taxes if a home is not owned). For most of these categories, the adjacent HRS core reports are simply averaged to produce the CAMS imputed value. However, if one adjacent HRS core report is a bracket amount rather than a continuous amount then comparisons are made between the continuous HRS core amount and the bracket minimums and maximum values. If the continuous amount is within the bracket then the continuous amount is used for the CAMS imputation. If the continuous amount is higher than the bracket, then the average of the continuous amount and the bracket maximum is used for the CAMS imputation. Likewise, if the continuous amount is lower than the bracket, then the average of the continuous amount and the bracket minimum is used for the CAMS imputation. If there is no continuous report in either wave, then no CAMS imputation is made.

Rent, mortgage, and food/beverage spending are affected by the home environment. Therefore, we pro-rate the HRS spending values if a person moves between waves. This pro-rating uses the move date to determine the split. The move date can be based on either the move date to a new home or to a nursing home. Spending on these categories is set to zero during the Respondent's nursing home tenure.

Durable categories imputation

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.

Regression Imputation

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:

⁹For the first 11 waves, we pooled all 11 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.

- 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.

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, 81% of the sample need two or fewer missing spending values imputed. 55% require no imputation. On average, 6% 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	8294	299357763.4	265203988.0	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 (V2), 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_2020v2 (keep=HHIDPN [list of other variables])
          randcams.randcams_2001_2021v1;
    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
15	H15HHID	H15HHID:W15 HHold ID + SubHHold /Num	Cont

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H1HHID	2640	491581.63	278424.38	100010.0	2088670.0
H2HHID	3591	932082.64	737000.98	100010.0	2088910.0
H3HHID	3608	923402.76	732958.40	100010.0	2088910.0
H4HHID	4895	1131674.12	754503.53	100010.0	2134790.0
H5HHID	5040	1124229.35	753586.83	100010.0	2134790.0
H6HHID	4836	1120549.32	752761.90	100010.0	2134790.0
H7HHID	5471	1679727.40	1556401.13	100010.0	5027570.0
H8HHID	5153	1671642.78	1569607.18	100010.0	5027550.0
H9HHID	4823	1674557.64	1601020.15	100010.0	5027570.0
H10HHID	5969	3016657.11	2846030.21	100010.0	9235250.0
H11HHID	5636	3074597.64	2879160.07	100010.0	9235250.0
H12HHID	5214	3150262.53	2914014.52	100010.0	9235250.0
H13HHID	5380	3570169.17	2847109.22	100010.0	9235250.0
H14HHID	4703	3695120.44	2848918.23	100040.0	9235250.0
H15HHID	4256	3858061.58	2854108.38	100041.0	9235250.0

How Constructed

The HwHHID identifiers combine HHID with a sub-household ID for each wave as reported in the CAMS datasets. They uniquely identify a household in a given wave as reported in the CAMS dataset. 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 2021 (V1) to the Wave 5 RAND HRS Longitudinal File 2020 (V2), 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_2020v2 (where=(inw5=1)) out=randhrs5;
    by H5HHID;
run;
proc sort data=randcams.randcams_2001_2021v1 (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 in the RAND HRS Longitudinal File 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
21	INCAMS21	INCAMS21: =1 if responded to CAMS 2021	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
15	INCAMSC15	INCAMSC15:In CAMS wave 15, as lined up with the HRS	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
INCAMS01	8294	0.47	0.50	0.0	1.0
INCAMS03	8294	0.39	0.49	0.0	1.0
INCAMS05	8294	0.47	0.50	0.0	1.0
INCAMS07	8294	0.45	0.50	0.0	1.0
INCAMS09	8294	0.43	0.50	0.0	1.0
INCAMS11	8294	0.53	0.50	0.0	1.0
INCAMS13	8294	0.49	0.50	0.0	1.0
INCAMS15	8294	0.45	0.50	0.0	1.0
INCAMS17	8294	0.42	0.49	0.0	1.0
INCAMS19	8294	0.40	0.49	0.0	1.0
INCAMS21	8294	0.36	0.48	0.0	1.0
INCAMSC5	8294	0.47	0.50	0.0	1.0
INCAMSC6	8294	0.39	0.49	0.0	1.0
INCAMSC7	8294	0.47	0.50	0.0	1.0
INCAMSC8	8294	0.45	0.50	0.0	1.0
INCAMSC9	8294	0.43	0.50	0.0	1.0
INCAMSC10	8294	0.53	0.50	0.0	1.0
INCAMSC11	8294	0.49	0.50	0.0	1.0
INCAMSC12	8294	0.45	0.50	0.0	1.0
INCAMSC13	8294	0.42	0.49	0.0	1.0
INCAMSC14	8294	0.40	0.49	0.0	1.0
INCAMSC15	8294	0.36	0.48	0.0	1.0

Categorical Variable Codes

Value	INCAMS01	INCAMS03	INCAMS05	INCAMS07	INCAMS09	INCAMS11	INCAMS13
0.nonresp	4428	5040	4415	4556	4707	3924	4227
1.resp	3866	3254	3879	3738	3587	4370	4067

Value	INCAMS15	INCAMS17	INCAMS19	INCAMS21
0.nonresp	4557	4788	4971	5308
1.resp	3737	3506	3323	2986

Value	INCAMSC5	INCAMSC6	INCAMSC7	INCAMSC8	INCAMSC9	INCAMSC10	INCAMSC11
0.nonresp	4428	5040	4415	4556	4707	3924	4227
1.resp	3866	3254	3879	3738	3587	4370	4067

Value	INCAMSC12	INCAMSC13	INCAMSC14	INCAMSC15
0.nonresp	4557	4788	4971	5308
1.resp	3737	3506	3323	2986

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
15	H15CNCAT	H15CNCAT:W15 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
15	H15C10REP	H15C10REP:W15 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
H15CNCAT	2986	37.04	5.45	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
H15C10REP	2986	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	w15
0. Resp to <10 spending Qs		50	48	52	59	49
1. Resp to 10+ spending Qs		4017	3689	3454	3264	2937

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
15	H15CHRSCOREF	H15CHRSCOREF:W15 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
H15CHRSCOREF	2986	0.94	0.24	0.0	1.0

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	w15
0. No adjacent HRS wv	23	29	36	102	180
1. In prev HRS wv only	187	240	319	227	2806
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 (V2) 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
INW15	INW15: =1 if Respondent W15

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
15	H15CWGTHH	H15CWGTHH:W15 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
15	H15CWGTR	H15CWGTR:W15 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	3324	20114.92	15626.21	0.0	69598.0
H15CWGTHH	2987	21857.62	16656.68	0.0	77134.0
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
H15CWGTR	2986	23026.30	18083.62	0.0	84040.0

General Comments

Updates to demographic information in the Tracker file will happen occasionally, and this can impact the weights generation.

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. Additionally, these Respondents and spouses typically did not respond to another CAMS survey so are ineligible for cross-wave respondent-level imputation. 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
CAMS 2021:	
CAMS21WGTHH	HOUSEHOLD WEIGHT FOR THE 2021 CAMS SUBSAMPLE
CAMS21WGTR	RESPONDENT WEIGHT FOR THE 2021 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
15	H15CMSTAT	H15CMSTAT:W15 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
H15CMSTAT	2744	3.10	1.95	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	w15
.M=Oth missing	166	352	167	124	242
1. married	1713	1427	1371	1325	1119
2. living with partner	174	140	136	176	137
3. separated	105	92	103	77	64
4. divorced	641	590	590	567	511
5. widowed	971	856	816	750	642
6. never married	264	248	272	271	231
7. other	33	32	51	33	40

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

CAMS2007-2021:

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
15	H15CSTOT	H15CSTOT:W15 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
15	H15CSTOTF	H15CSTOTF:W15 CAMSFlag Total Spending	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSTOT	3789	34827.78	27904.66	0.0	315250.0
H6CSTOT	3224	37013.26	28135.82	0.0	232702.0
H7CSTOT	3832	37583.77	29254.38	0.0	267447.0
H8CSTOT	3704	38069.68	28112.29	0.0	252105.0
H9CSTOT	3550	36195.11	25335.87	0.0	237794.0
H10CSTOT	4319	37827.50	27595.41	0.0	256545.0
H11CSTOT	4017	38334.71	28885.30	0.0	301347.0
H12CSTOT	3689	39523.68	30442.82	0.0	262171.0
H13CSTOT	3454	41066.78	31797.75	0.0	280099.0
H14CSTOT	3264	42681.76	32866.04	0.0	328627.0
H15CSTOT	2937	43786.31	33772.09	0.0	289699.0
H5CSTOTF	3789	1.04	1.06	0.0	3.0
H6CSTOTF	3224	1.11	1.07	0.0	3.0
H7CSTOTF	3832	1.05	1.06	0.0	3.0
H8CSTOTF	3704	0.96	1.05	0.0	3.0
H9CSTOTF	3550	0.97	1.06	0.0	3.0
H10CSTOTF	4319	0.95	1.05	0.0	3.0
H11CSTOTF	4017	0.95	1.05	0.0	3.0
H12CSTOTF	3689	0.91	1.04	0.0	3.0
H13CSTOTF	3454	0.92	1.04	0.0	3.0
H14CSTOTF	3264	0.94	1.06	0.0	3.0
H15CSTOTF	2937	0.94	1.03	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 cleaning or imputation						1830	1440	1828	1900	1824	2258
1.Cleaning only						165	219	236	281	220	259
2.Imputation only						1591	1320	1533	1297	1279	1557
3.Imputation and cleaning						203	245	235	226	227	245

Value		w11	w12	w13	w14	w15
.T=Resp <10 cat		50	48	52	59	49
0.No cleaning or imputation		2108	1980	1843	1727	1548
1.Cleaning only		244	246	234	205	135
2.Imputation only		1436	1269	1197	1120	1137
3.Imputation and cleaning		229	194	180	212	117

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 15 which asks about 2021 spending.

The spending components are summed to create the total spending measures. A flag indicates whether any of its components were imputed or cleaned. 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 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 or cleaned. 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 CHR
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. MORTGAGE - 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. MORTGAGE - 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
CAMS2001-2021:	
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
CAMS2003-2021:	
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
CAMS2005-2021:	
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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year
 RAEDUC: R education (categ)
 RAGENDER: R Gender
 RAHISPAN: R Hispanic
 RwADL6A:Ww Any Diff-sum of ADLs /0-6
 RwMSTAT:Ww R Marital Status
 RwSHLT:Ww Self-report of health
 RwWORK:Ww R working for pay
 SwADL6A:Ww Any Diff-sum of ADLs /0-6
 SwBYEAR: S birth year
 SwEDUC: S education (categ)
 SwHISPAN: S Hispanic
 SwIWSTAT:Ww S Interview Status
 SwSHLT:Ww Self-report of health
 SwWORK:Ww S working for pay
 HwAHOUS:Ww Assets:Primary Residence–Cross-wave
 HwATOTB:Ww Total of all Assets–Cross-wave
 HwATRAN:Ww Assets:Transportation–Cross-wave
 HwHHRES:Ww Number of people in HH
 HwITOT:Ww Income: Total HHold / R+Sp only

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
15	H15CSDUR	H15CSDUR:W15 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
15	H15CSDURF	H15CSDURF:W15 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
15	H15CSFRIDGE	H15CSFRIDGE:W15 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
15	H15CSWASHDRY	H15CSWASHDRY:W15 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
15	H15CSDISHW	H15CSDISHW:W15 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
15	H15CSPC	H15CSPC:W15 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
15	H15CSTV	H15CSTV:W15 CAMS Television Spending	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSDUR	3789	321.12	658.69	0.0	5583.0
H6CSDUR	3224	300.36	599.83	0.0	5077.0
H7CSDUR	3832	359.85	750.02	0.0	6650.0
H8CSDUR	3704	407.19	815.62	0.0	10887.0
H9CSDUR	3550	376.05	698.29	0.0	6700.0
H10CSDUR	4319	351.04	655.65	0.0	6228.0
H11CSDUR	4017	321.88	654.99	0.0	6400.0
H12CSDUR	3689	286.37	635.46	0.0	8155.0
H13CSDUR	3454	289.36	638.01	0.0	6750.0
H14CSDUR	3264	299.68	622.90	0.0	5588.0
H15CSDUR	2937	333.14	726.98	0.0	7400.0
H5CSDURF	3789	0.15	0.53	0.0	2.0
H6CSDURF	3224	0.19	0.58	0.0	2.0
H7CSDURF	3832	0.19	0.58	0.0	2.0
H8CSDURF	3704	0.12	0.47	0.0	2.0
H9CSDURF	3550	0.10	0.43	0.0	2.0
H10CSDURF	4319	0.10	0.43	0.0	2.0
H11CSDURF	4017	0.09	0.42	0.0	2.0
H12CSDURF	3689	0.07	0.38	0.0	2.0
H13CSDURF	3454	0.08	0.39	0.0	2.0
H14CSDURF	3264	0.08	0.38	0.0	2.0
H15CSDURF	2937	0.09	0.42	0.0	2.0
H5CSFRIDGE	3844	55.86	218.48	0.0	2000.0
H6CSFRIDGE	3246	57.49	229.02	0.0	2000.0
H7CSFRIDGE	3864	64.67	260.47	0.0	3000.0
H8CSFRIDGE	3725	62.54	256.72	0.0	2600.0
H9CSFRIDGE	3575	59.12	261.48	0.0	2395.0
H10CSFRIDGE	4355	62.52	265.88	0.0	2589.0
H11CSFRIDGE	4048	71.19	305.57	0.0	3000.0
H12CSFRIDGE	3728	69.31	308.41	0.0	3000.0
H13CSFRIDGE	3485	81.30	346.96	0.0	3399.0
H14CSFRIDGE	3301	73.74	309.94	0.0	2800.0
H15CSFRIDGE	2970	89.42	367.50	0.0	3000.0
H5CSWASHDRY	3845	41.61	165.33	0.0	1700.0

H6CSWASHDRY	3246	49.07	185.26	0.0	1722.0
H7CSWASHDRY	3865	50.86	205.70	0.0	2000.0
H8CSWASHDRY	3726	65.27	253.28	0.0	2500.0
H9CSWASHDRY	3576	57.06	233.67	0.0	2700.0
H10CSWASHDRY	4352	53.24	216.80	0.0	2597.0
H11CSWASHDRY	4048	64.69	251.27	0.0	2400.0
H12CSWASHDRY	3728	56.94	235.65	0.0	2300.0
H13CSWASHDRY	3486	60.27	236.71	0.0	3000.0
H14CSWASHDRY	3299	68.30	254.65	0.0	2400.0
H15CSWASHDRY	2971	62.42	255.79	0.0	2100.0
H5CSDISHW	3847	17.49	91.75	0.0	900.0
H6CSDISHW	3248	18.94	92.12	0.0	850.0
H7CSDISHW	3864	18.92	97.12	0.0	900.0
H8CSDISHW	3727	21.77	106.88	0.0	1009.0
H9CSDISHW	3577	16.06	91.68	0.0	1000.0
H10CSDISHW	4353	16.64	93.30	0.0	850.0
H11CSDISHW	4047	17.86	101.86	0.0	1000.0
H12CSDISHW	3729	19.74	110.56	0.0	1200.0
H13CSDISHW	3487	20.21	108.79	0.0	1000.0
H14CSDISHW	3301	22.24	120.61	0.0	1200.0
H15CSDISHW	2970	24.37	129.06	0.0	1100.0
H5CSPC	3845	137.14	460.12	0.0	4500.0
H6CSPC	3246	109.19	382.15	0.0	3000.0
H7CSPC	3865	126.91	409.41	0.0	3500.0
H8CSPC	3728	109.35	355.19	0.0	3000.0
H9CSPC	3576	91.86	287.66	0.0	2500.0
H10CSPC	4352	107.32	306.74	0.0	2800.0
H11CSPC	4046	81.64	261.25	0.0	2700.0
H12CSPC	3727	71.11	248.10	0.0	2300.0
H13CSPC	3487	64.36	241.08	0.0	2100.0
H14CSPC	3302	84.22	284.85	0.0	2500.0
H15CSPC	2970	93.57	298.40	0.0	2557.0
H5CSTV	3844	66.10	243.63	0.0	2800.0
H6CSTV	3248	64.62	235.63	0.0	3000.0
H7CSTV	3862	96.34	385.36	0.0	4500.0
H8CSTV	3726	146.21	473.82	0.0	5000.0
H9CSTV	3578	151.19	393.58	0.0	3200.0
H10CSTV	4352	109.91	317.89	0.0	3000.0
H11CSTV	4046	85.71	269.08	0.0	3000.0
H12CSTV	3729	67.32	239.00	0.0	3500.0
H13CSTV	3486	61.82	223.23	0.0	2400.0
H14CSTV	3300	53.71	212.97	0.0	3000.0
H15CSTV	2970	61.70	234.48	0.0	2700.0

Categorical Variable Codes

HwCSDURF: CAMSFlag Total Durables Spending excl. car purch.

Value	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat					77	30	47	34	37	51
0.No cleaning or imputation					3498	2920	3477	3488	3376	4107
2.Imputation only					291	304	355	216	174	212

Value	w11	w12	w13	w14	w15
.T=Resp <10 cat	50	48	52	59	49
0.No cleaning or imputation	3828	3553	3314	3139	2799
2.Imputation only	189	136	140	125	138

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 15 which asks about 2021 spending.

The spending components are summed to create the total spending measures. A flag indicates whether any of its components were imputed or cleaned. 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 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 or cleaned. 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

CAMS2001-2021:

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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year
RAEDUC: R education (categ)
RAGENDER: R Gender
RAHISPAN: R Hispanic
RwADL6A:Ww Any Diff-sum of ADLs /0-6
RwMSTAT:Ww R Marital Status
RwSHLT:Ww Self-report of health
RwWORK:Ww R working for pay
SwADL6A:Ww Any Diff-sum of ADLs /0-6
SwBYEAR: S birth year
SwEDUC: S education (categ)
SwHISPAN: S Hispanic
SwIWSTAT:Ww S Interview Status
SwSHLT:Ww Self-report of health
SwWORK:Ww S working for pay
HwAHOUS:Ww Assets:Primary Residence–Cross-wave
HwATOTB:Ww Total of all Assets–Cross-wave
HwATRAN:Ww Assets:Transportation–Cross-wave
HwHHRES:Ww Number of people in HH
HwITOT:Ww Income: Total HHold / R+Sp only

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
15	H15CSNDUR	H15CSNDUR:W15 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
15	H15CSNDURF	H15CSNDURF:W15 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
15	H15CSCASHGIFT	H15CSCASHGIFT:W15 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
15	H15CSCLOTH	H15CSCLOTH:W15 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
15	H15CSCONTS	H15CSCONTS:W15 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
15	H15CSDINOUT	H15CSDINOUT:W15 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
15	H15CSDRUGS	H15CSDRUGS:W15 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
15	H15CSELECTRIC	H15CSELECTRIC:W15 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
15	H15CSFDBEV	H15CSFDBEV:W15 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
15	H15CSHEAT	H15CSHEAT:W15 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
15	H15CSHLTHINS	H15CSHLTHINS:W15 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
15	H15CSHLTHSVC	H15CSHLTHSVC:W15 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
15	H15CSMEDSUP	H15CSMEDSUP:W15 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
15	H15CSTELECOM	H15CSTELECOM:W15 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
15	H15CSTICKET	H15CSTICKET:W15 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
15	H15CSTRIPVAC	H15CSTRIPVAC:W15 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
15	H15CSWATER	H15CSWATER:W15 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
15	H15CSPRSCARE	H15CSPRSCARE:W15 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
15	H15CSFURNISH	H15CSFURNISH:W15 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
15	H15CSHOBBY	H15CSHOBBY:W15 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
15	H15CSSPORT	H15CSSPORT:W15 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
15	H15CSYRDSUP	H15CSYRDSUP:W15 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
15	H15CSYRDSVC	H15CSYRDSVC:W15 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

15	H15CSHKSUP	H15CSHKSUP:W15 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
15	H15CSHKSVC	H15CSHKSVC:W15 CAMS Housekeeping Services	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSNDUR	3789	19943.89	17306.26	0.0	245000.0
H6CSNDUR	3224	21613.07	17472.26	0.0	213224.0
H7CSNDUR	3832	21070.34	16311.63	0.0	160098.0
H8CSNDUR	3704	21532.38	16245.21	0.0	150420.0
H9CSNDUR	3550	21036.82	15199.01	0.0	159875.0
H10CSNDUR	4319	21321.96	15829.84	0.0	130992.0
H11CSNDUR	4017	21431.43	16650.17	0.0	161519.0
H12CSNDUR	3689	22573.46	18028.02	0.0	161370.0
H13CSNDUR	3454	23194.14	19028.56	0.0	192310.0
H14CSNDUR	3264	23855.26	19395.56	0.0	199012.0
H15CSNDUR	2937	23989.97	19573.81	0.0	161411.0
H5CSNDURF	3789	0.66	0.95	0.0	3.0
H6CSNDURF	3224	0.75	0.99	0.0	3.0
H7CSNDURF	3832	0.70	0.97	0.0	3.0
H8CSNDURF	3704	0.66	0.94	0.0	3.0
H9CSNDURF	3550	0.68	0.97	0.0	3.0
H10CSNDURF	4319	0.64	0.95	0.0	3.0
H11CSNDURF	4017	0.65	0.95	0.0	3.0
H12CSNDURF	3689	0.61	0.93	0.0	3.0
H13CSNDURF	3454	0.62	0.93	0.0	3.0
H14CSNDURF	3264	0.65	0.95	0.0	3.0
H15CSNDURF	2937	0.64	0.94	0.0	3.0
H5CSCASHGIFT	3790	2109.34	7714.57	0.0	187704.0
H6CSCASHGIFT	3225	2047.06	7159.83	0.0	120000.0
H7CSCASHGIFT	3835	1651.39	4931.49	0.0	67000.0
H8CSCASHGIFT	3704	1624.60	4853.62	0.0	90000.0
H9CSCASHGIFT	3550	1555.34	4790.26	0.0	96000.0
H10CSCASHGIFT	4320	1390.81	4291.07	0.0	65000.0
H11CSCASHGIFT	4018	1428.86	4764.31	0.0	75000.0
H12CSCASHGIFT	3689	1541.17	5312.35	0.0	100000.0
H13CSCASHGIFT	3454	1622.28	5536.03	0.0	84000.0
H14CSCASHGIFT	3264	1555.99	5531.97	0.0	95000.0
H15CSCASHGIFT	2938	1718.78	6332.39	0.0	80000.0
H5CSCLOTH	3790	1180.99	2265.21	0.0	31284.0
H6CSCLOTH	3225	1039.61	2002.52	0.0	30000.0
H7CSCLOTH	3832	798.29	1504.61	0.0	24000.0
H8CSCLOTH	3706	790.35	1462.61	0.0	24000.0
H9CSCLOTH	3551	640.70	1059.64	0.0	15000.0

H10CSCLOTH	4319	702.67	1234.07	0.0	15000.0
H11CSCLOTH	4017	723.55	1372.53	0.0	24000.0
H12CSCLOTH	3689	769.65	1571.00	0.0	24000.0
H13CSCLOTH	3455	721.27	1324.42	0.0	20000.0
H14CSCLOTH	3265	766.90	1353.55	0.0	18000.0
H15CSCLOTH	2938	767.86	1688.11	0.0	27600.0
H5CSCONTS	3860	1516.94	4571.58	0.0	104280.0
H6CSCONTS	3251	1507.78	3711.10	0.0	60000.0
H7CSCONTS	3876	1301.57	2645.58	0.0	32000.0
H8CSCONTS	3733	1351.49	2817.07	0.0	38000.0
H9CSCONTS	3582	1326.79	2717.30	0.0	35600.0
H10CSCONTS	4360	1258.50	2748.31	0.0	32000.0
H11CSCONTS	4059	1197.82	2549.94	0.0	26000.0
H12CSCONTS	3727	1282.39	2769.53	0.0	30000.0
H13CSCONTS	3497	1397.20	3199.62	0.0	58000.0
H14CSCONTS	3314	1398.24	3380.81	0.0	50000.0
H15CSCONTS	2972	1408.13	3279.98	0.0	35000.0
H5CSDINOUT	3863	1320.67	1822.40	0.0	18249.0
H6CSDINOUT	3251	1685.95	2616.01	0.0	36000.0
H7CSDINOUT	3874	1542.23	2574.46	0.0	50400.0
H8CSDINOUT	3733	1578.96	2496.99	0.0	30000.0
H9CSDINOUT	3583	1379.28	1970.79	0.0	19200.0
H10CSDINOUT	4363	1525.07	2294.26	0.0	23463.0
H11CSDINOUT	4058	1563.97	2389.28	0.0	35977.0
H12CSDINOUT	3731	1749.05	2913.25	0.0	54000.0
H13CSDINOUT	3499	1806.85	2816.91	0.0	31284.0
H14CSDINOUT	3312	1931.75	2928.19	0.0	35640.0
H15CSDINOUT	2976	1872.44	2911.47	0.0	26070.0
H5CSDRUGS	3792	1088.58	1915.01	0.0	29400.0
H6CSDRUGS	3226	1195.70	2236.63	0.0	36000.0
H7CSDRUGS	3832	1050.30	1841.02	0.0	24000.0
H8CSDRUGS	3704	888.98	1448.50	0.0	24000.0
H9CSDRUGS	3550	882.96	1531.64	0.0	21600.0
H10CSDRUGS	4319	783.01	1477.15	0.0	24000.0
H11CSDRUGS	4019	686.86	1063.54	0.0	15000.0
H12CSDRUGS	3689	735.97	1543.03	0.0	33600.0
H13CSDRUGS	3455	668.83	1303.79	0.0	19200.0
H14CSDRUGS	3264	737.34	1882.45	0.0	36000.0
H15CSDRUGS	2938	648.41	1479.05	0.0	33600.0
H5CSELECTRIC	3796	1054.61	812.68	0.0	10752.0
H6CSELECTRIC	3224	1107.93	912.23	0.0	12295.0
H7CSELECTRIC	3832	1176.97	928.50	0.0	11867.0
H8CSELECTRIC	3705	1341.05	1113.39	0.0	18000.0
H9CSELECTRIC	3552	1383.62	1201.27	0.0	18000.0
H10CSELECTRIC	4320	1553.23	1541.84	0.0	32400.0
H11CSELECTRIC	4017	1510.39	1601.98	0.0	29496.0
H12CSELECTRIC	3689	1545.84	1390.40	0.0	23400.0
H13CSELECTRIC	3456	1535.88	1465.83	0.0	21600.0
H14CSELECTRIC	3265	1573.65	1387.80	0.0	17280.0
H15CSELECTRIC	2940	1631.89	1709.76	0.0	27564.0
H5CSFDBEV	3859	3600.61	3153.62	0.0	31284.0
H6CSFDBEV	3252	3923.89	3549.30	0.0	48000.0
H7CSFDBEV	3868	3842.06	3769.79	0.0	84000.0
H8CSFDBEV	3731	3905.19	3577.28	0.0	57600.0

H9CSFDBEV	3580	3892.30	3164.74	0.0	28800.0
H10CSFDBEV	4362	4135.32	3442.34	0.0	31284.0
H11CSFDBEV	4056	4190.17	3650.07	0.0	40000.0
H12CSFDBEV	3722	4316.53	3975.33	0.0	41712.0
H13CSFDBEV	3495	4440.68	4419.75	0.0	60000.0
H14CSFDBEV	3309	4490.97	4388.84	0.0	57354.0
H15CSFDBEV	2972	4935.93	5058.53	0.0	57302.0
H5CSHEAT	3792	650.56	840.24	0.0	15660.0
H6CSHEAT	3224	753.58	1115.96	0.0	16200.0
H7CSHEAT	3832	745.59	910.95	0.0	8400.0
H8CSHEAT	3705	776.34	1016.57	0.0	14400.0
H9CSHEAT	3550	853.99	1265.18	0.0	14400.0
H10CSHEAT	4320	770.76	1239.47	0.0	14400.0
H11CSHEAT	4017	711.75	1324.70	0.0	19200.0
H12CSHEAT	3689	720.52	1396.26	0.0	36000.0
H13CSHEAT	3455	615.09	1070.44	0.0	14400.0
H14CSHEAT	3264	707.73	1350.98	0.0	24000.0
H15CSHEAT	2938	684.71	1205.63	0.0	14400.0
H5CSHLTHINS	3855	1767.04	3176.94	0.0	48000.0
H6CSHLTHINS	3249	1708.72	2085.68	0.0	15000.0
H7CSHLTHINS	3868	1738.45	2181.76	0.0	16300.0
H8CSHLTHINS	3731	1872.10	2488.50	0.0	20000.0
H9CSHLTHINS	3582	2013.86	2638.29	0.0	20989.0
H10CSHLTHINS	4357	1877.79	2681.09	0.0	24000.0
H11CSHLTHINS	4055	1900.84	2748.82	0.0	25000.0
H12CSHLTHINS	3723	1914.78	2767.81	0.0	26400.0
H13CSHLTHINS	3493	1977.26	2943.83	0.0	24036.0
H14CSHLTHINS	3307	1961.06	3022.96	0.0	30000.0
H15CSHLTHINS	2965	1838.18	2900.99	0.0	25000.0
H5CSHLTHSVC	3791	1088.83	3201.00	0.0	60000.0
H6CSHLTHSVC	3224	1218.28	3535.70	0.0	60000.0
H7CSHLTHSVC	3833	1112.51	3143.25	0.0	50000.0
H8CSHLTHSVC	3704	1116.07	3379.85	0.0	72000.0
H9CSHLTHSVC	3550	1222.21	3871.64	0.0	64284.0
H10CSHLTHSVC	4319	1094.51	3090.63	0.0	55200.0
H11CSHLTHSVC	4020	1044.19	2786.50	0.0	48000.0
H12CSHLTHSVC	3689	1128.76	3367.41	0.0	60000.0
H13CSHLTHSVC	3454	1208.92	3953.30	0.0	75100.0
H14CSHLTHSVC	3264	1120.67	3298.61	0.0	60000.0
H15CSHLTHSVC	2937	1105.57	3339.03	0.0	60000.0
H5CSMEDSUP	3791	240.24	796.65	0.0	15642.0
H6CSMEDSUP	3224	230.28	690.37	0.0	12000.0
H7CSMEDSUP	3832	210.27	610.21	0.0	10260.0
H8CSMEDSUP	3704	226.16	741.84	0.0	14400.0
H9CSMEDSUP	3550	195.97	510.17	0.0	6000.0
H10CSMEDSUP	4319	185.21	545.75	0.0	8324.0
H11CSMEDSUP	4020	209.43	608.47	0.0	9600.0
H12CSMEDSUP	3689	200.79	607.05	0.0	9600.0
H13CSMEDSUP	3455	171.93	477.88	0.0	7000.0
H14CSMEDSUP	3264	205.33	697.24	0.0	12000.0
H15CSMEDSUP	2937	224.72	808.16	0.0	18000.0
H5CSTELECOM	3794	912.39	769.76	0.0	14400.0
H6CSTELECOM	3224	1061.58	1014.39	0.0	14400.0
H7CSTELECOM	3832	1100.68	845.72	0.0	9768.0

H8CSTELECOM	3705	1229.45	1134.66	0.0	18000.0
H9CSTELECOM	3551	1313.19	954.86	0.0	10800.0
H10CSTELECOM	4321	1549.05	1663.87	0.0	28800.0
H11CSTELECOM	4017	1643.53	1518.68	0.0	24000.0
H12CSTELECOM	3689	1707.66	1622.38	0.0	28800.0
H13CSTELECOM	3456	1831.32	1668.39	0.0	26400.0
H14CSTELECOM	3264	2001.43	1999.33	0.0	28800.0
H15CSTELECOM	2939	2000.95	2115.43	0.0	28800.0
H5CSTICKET	3792	172.42	537.54	0.0	8000.0
H6CSTICKET	3224	166.25	482.76	0.0	6720.0
H7CSTICKET	3835	156.59	427.66	0.0	6000.0
H8CSTICKET	3705	154.88	471.05	0.0	8000.0
H9CSTICKET	3550	140.12	415.91	0.0	6000.0
H10CSTICKET	4320	146.72	395.19	0.0	7000.0
H11CSTICKET	4018	145.79	436.73	0.0	7000.0
H12CSTICKET	3690	164.17	526.20	0.0	8400.0
H13CSTICKET	3454	162.37	440.31	0.0	5000.0
H14CSTICKET	3265	174.26	542.90	0.0	10000.0
H15CSTICKET	2939	88.74	327.91	0.0	6000.0
H5CSTRIPVAC	3791	1857.62	4801.98	0.0	78210.0
H6CSTRIPVAC	3224	1361.99	2349.09	0.0	25000.0
H7CSTRIPVAC	3834	1451.23	2684.04	0.0	30000.0
H8CSTRIPVAC	3705	1555.98	2818.11	0.0	25000.0
H9CSTRIPVAC	3552	1386.69	2673.37	0.0	30000.0
H10CSTRIPVAC	4321	1357.17	2706.93	0.0	30000.0
H11CSTRIPVAC	4018	1381.49	2834.35	0.0	29550.0
H12CSTRIPVAC	3691	1541.99	3263.70	0.0	35000.0
H13CSTRIPVAC	3455	1692.69	3698.04	0.0	50000.0
H14CSTRIPVAC	3265	1767.10	3642.67	0.0	40000.0
H15CSTRIPVAC	2938	1240.99	2639.54	0.0	25000.0
H5CSWATER	3795	312.78	414.89	0.0	6000.0
H6CSWATER	3224	349.04	552.15	0.0	8496.0
H7CSWATER	3833	359.82	437.89	0.0	4543.0
H8CSWATER	3704	370.52	434.47	0.0	4800.0
H9CSWATER	3551	412.55	611.11	0.0	10800.0
H10CSWATER	4320	455.02	634.36	0.0	12000.0
H11CSWATER	4017	500.67	813.43	0.0	15840.0
H12CSWATER	3689	486.45	634.04	0.0	10800.0
H13CSWATER	3455	514.43	657.28	0.0	9600.0
H14CSWATER	3265	557.02	722.91	0.0	9600.0
H15CSWATER	2939	600.18	886.61	0.0	15600.0
H6CSPRSCARE	3225	562.99	823.12	0.0	10800.0
H7CSPRSCARE	3832	489.84	680.79	0.0	7800.0
H8CSPRSCARE	3705	518.95	821.44	0.0	15600.0
H9CSPRSCARE	3550	493.87	759.95	0.0	12000.0
H10CSPRSCARE	4319	503.64	643.78	0.0	7200.0
H11CSPRSCARE	4017	521.61	769.66	0.0	12000.0
H12CSPRSCARE	3689	568.30	815.69	0.0	14400.0
H13CSPRSCARE	3456	589.08	866.21	0.0	12000.0
H14CSPRSCARE	3265	640.96	1021.56	0.0	18000.0
H15CSPRSCARE	2939	630.16	972.87	0.0	12000.0
H7CSFURNISH	3833	625.23	1747.00	0.0	25000.0
H8CSFURNISH	3704	559.51	1524.82	0.0	23400.0
H9CSFURNISH	3551	395.11	1065.85	0.0	15000.0

H10CSFURNISH	4319	392.62	1098.03	0.0	13250.0
H11CSFURNISH	4018	395.36	1210.04	0.0	17750.0
H12CSFURNISH	3689	412.11	1246.29	0.0	20000.0
H13CSFURNISH	3458	454.29	1409.84	0.0	20000.0
H14CSFURNISH	3264	443.89	1251.73	0.0	15000.0
H15CSFURNISH	2938	495.45	1454.02	0.0	20000.0
H5CSHOBSPORT	3791	399.67	1381.46	0.0	26070.0
H6CSHOBBY	3224	264.95	718.65	0.0	10000.0
H7CSHOBBY	3834	261.66	703.08	0.0	15000.0
H8CSHOBBY	3705	232.84	605.85	0.0	10000.0
H9CSHOBBY	3550	201.88	526.81	0.0	9840.0
H10CSHOBBY	4319	216.37	554.25	0.0	9000.0
H11CSHOBBY	4018	200.05	573.70	0.0	10800.0
H12CSHOBBY	3691	195.85	580.42	0.0	8400.0
H13CSHOBBY	3454	211.76	639.71	0.0	11016.0
H14CSHOBBY	3266	204.76	565.39	0.0	7200.0
H15CSHOBBY	2939	214.63	723.88	0.0	12000.0
H6CSSPORT	3224	163.18	915.45	0.0	18000.0
H7CSSPORT	3836	170.80	776.73	0.0	15000.0
H8CSSPORT	3706	150.21	634.44	0.0	15500.0
H9CSSPORT	3550	139.71	582.79	0.0	10000.0
H10CSSPORT	4320	163.67	776.48	0.0	16800.0
H11CSSPORT	4018	149.48	655.78	0.0	12000.0
H12CSSPORT	3692	143.38	621.79	0.0	10800.0
H13CSSPORT	3455	169.77	743.60	0.0	14400.0
H14CSSPORT	3265	185.91	862.33	0.0	20000.0
H15CSSPORT	2939	148.82	738.72	0.0	12000.0
H5CSHKYRDSUP	3789	671.14	1431.16	0.0	26070.0
H6CSYRDSUP	3224	284.79	721.08	0.0	12372.0
H7CSYRDSUP	3832	241.89	658.55	0.0	12000.0
H8CSYRDSUP	3704	239.84	594.84	0.0	10702.0
H9CSYRDSUP	3550	246.94	541.58	0.0	8400.0
H10CSYRDSUP	4319	251.94	570.05	0.0	10800.0
H11CSYRDSUP	4017	244.55	600.06	0.0	12000.0
H12CSYRDSUP	3690	256.70	610.12	0.0	10800.0
H13CSYRDSUP	3454	259.98	622.00	0.0	8400.0
H14CSYRDSUP	3265	238.37	545.12	0.0	7500.0
H15CSYRDSUP	2937	375.96	1199.58	0.0	30000.0
H6CSYRDSVC	3224	331.21	982.67	0.0	13200.0
H7CSYRDSVC	3832	325.27	1092.73	0.0	24000.0
H8CSYRDSVC	3705	310.76	956.37	0.0	15000.0
H9CSYRDSVC	3550	292.60	727.95	0.0	9500.0
H10CSYRDSVC	4319	289.96	779.38	0.0	12000.0
H11CSYRDSVC	4018	343.79	942.33	0.0	14400.0
H12CSYRDSVC	3689	428.45	1544.81	0.0	24000.0
H13CSYRDSVC	3454	351.80	1085.98	0.0	18000.0
H14CSYRDSVC	3266	373.43	1060.81	0.0	14400.0
H15CSYRDSVC	2937	426.35	1305.58	0.0	21300.0
H6CSHKSUP	3224	305.02	420.98	0.0	7200.0
H7CSHKSUP	3833	344.63	576.96	0.0	12000.0
H8CSHKSUP	3705	347.66	495.28	0.0	9576.0
H9CSHKSUP	3553	348.29	487.55	0.0	7200.0

H10CSHKSUP	4319	402.22	564.86	0.0	9600.0
H11CSHKSUP	4017	392.63	536.17	0.0	9600.0
H12CSHKSUP	3689	404.83	529.50	0.0	7200.0
H13CSHKSUP	3456	424.02	560.48	0.0	8400.0
H14CSHKSUP	3265	452.30	631.56	0.0	9600.0
H15CSHKSUP	2939	496.21	776.22	0.0	14400.0
H6CSHKSVC	3224	335.20	899.45	0.0	13824.0
H7CSHKSVC	3832	368.95	1082.42	0.0	18120.0
H8CSHKSVC	3705	378.46	1046.96	0.0	16800.0
H9CSHKSVC	3550	324.09	940.50	0.0	18000.0
H10CSHKSVC	4319	332.90	912.17	0.0	14400.0
H11CSHKSVC	4017	350.70	1075.85	0.0	18000.0
H12CSHKSVC	3690	386.88	1227.53	0.0	26400.0
H13CSHKSVC	3454	373.02	1128.46	0.0	17280.0
H14CSHKSVC	3265	391.46	1172.59	0.0	18600.0
H15CSHKSVC	2938	443.35	1534.40	0.0	25200.0

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 cleaning or imputation					2520	1970	2430	2393	2299	2884
1.Cleaning only					72	215	216	258	215	229
2.Imputation only					1154	925	1076	962	921	1086
3.Imputation and cleaning					43	114	110	91	115	120
Value	w11	w12	w13	w14	w15					
.T=Resp <10 cat	50	48	52	59	49					
0.No cleaning or imputation	2667	2500	2333	2159	1968					
1.Cleaning only	203	205	185	175	109					
2.Imputation only	1042	903	859	839	804					
3.Imputation and cleaning	105	81	77	91	56					

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 15 which asks about 2021 spending.

The spending components are summed to create the total spending measures. A flag indicates whether any of its components were imputed or cleaned. 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 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 (HwCSHKSV) 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 or cleaned. 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
CAMS2003-2021:	
B11_YR	B11. HEALTH INSURANCE
B12_YR	B12. TRIPS AND VACATIONS
CAMS2005-2021:	
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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year
 RAEDUC: R education (categ)
 RAGENDER: R Gender
 RAHISPAN: R Hispanic
 RwADL6A:Ww Any Diff-sum of ADLs /0-6
 RwmSTAT:Ww R Marital Status
 RwsHLT:Ww Self-report of health
 RwwORK:Ww R working for pay
 SwADL6A:Ww Any Diff-sum of ADLs /0-6
 SwBYEAR: S birth year
 SwEDUC: S education (categ)
 SwHISPAN: S Hispanic
 SwIWSTAT:Ww S Interview Status
 SwsHLT:Ww Self-report of health
 SwwORK:Ww S working for pay
 HwAHOUS:Ww Assets:Primary Residence–Cross-wave
 HwATOTB:Ww Total of all Assets–Cross-wave

HwATRAN:Ww Assets:Transportation–Cross-wave

HwHHRES:Ww Number of people in HH

HwITOT:Ww Income: Total HHold / R+Sp only

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
15	H15CSTRANS	H15CSTRANS:W15 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
15	H15CSTRANSF	H15CSTRANSF:W15 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
15	H15CSCARALL	H15CSCARALL:W15 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
15	H15CSCARINS	H15CSCARINS:W15 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
15	H15CSCARMNT	H15CSCARMNT:W15 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	H10SCARPAY	H10SCARPAY:W10	CAMS Car Interest + Principal Payments	Categ
11	H11SCARPAY	H11SCARPAY:W11	CAMS Car Interest + Principal Payments	Categ
12	H12SCARPAY	H12SCARPAY:W12	CAMS Car Interest + Principal Payments	Categ
13	H13SCARPAY	H13SCARPAY:W13	CAMS Car Interest + Principal Payments	Categ
14	H14SCARPAY	H14SCARPAY:W14	CAMS Car Interest + Principal Payments	Categ
15	H15SCARPAY	H15SCARPAY:W15	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
15	H15CSGAS	H15CSGAS:W15	CAMS Gasoline	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSTRANS	3789	7702.55	11309.19	0.0	83664.0
H6CSTRANS	3224	7997.10	12260.24	0.0	112960.0
H7CSTRANS	3832	8683.86	12943.42	0.0	135561.0
H8CSTRANS	3704	7931.89	11393.58	0.0	98386.0
H9CSTRANS	3550	6872.44	9760.04	0.0	86973.0
H10CSTRANS	4319	7759.66	11150.26	0.0	98759.0
H11CSTRANS	4017	8114.98	12328.94	0.0	132122.0
H12CSTRANS	3689	8070.55	12719.55	0.0	98807.0
H13CSTRANS	3454	8394.89	13015.55	0.0	97612.0
H14CSTRANS	3264	8941.67	13997.54	0.0	126551.0
H15CSTRANS	2937	9138.22	14158.09	0.0	148200.0
H5CSTRANSF	3789	0.43	0.82	0.0	3.0
H6CSTRANSF	3224	0.35	0.75	0.0	3.0
H7CSTRANSF	3832	0.35	0.76	0.0	3.0
H8CSTRANSF	3704	0.30	0.70	0.0	3.0
H9CSTRANSF	3550	0.30	0.71	0.0	3.0
H10CSTRANSF	4319	0.28	0.69	0.0	3.0
H11CSTRANSF	4017	0.31	0.71	0.0	3.0
H12CSTRANSF	3689	0.28	0.68	0.0	3.0
H13CSTRANSF	3454	0.30	0.71	0.0	3.0
H14CSTRANSF	3264	0.29	0.70	0.0	3.0
H15CSTRANSF	2937	0.29	0.70	0.0	3.0
H5CSCARALL	3843	3956.50	9626.10	0.0	67000.0
H6CSCARALL	3246	3497.04	9163.90	0.0	74500.0
H7CSCARALL	3863	3914.47	10496.40	0.0	113000.0
H8CSCARALL	3726	3120.00	8704.21	0.0	60909.4
H9CSCARALL	3577	2592.16	7647.97	0.0	71142.6
H10CSCARALL	4350	2796.72	8617.85	0.0	66000.0
H11CSCARALL	4043	3205.76	9508.40	0.0	100000.0
H12CSCARALL	3725	3406.70	10129.66	0.0	79000.0
H13CSCARALL	3486	3424.04	10169.84	0.0	80000.0
H14CSCARALL	3299	3579.50	10917.45	0.0	99810.3
H15CSCARALL	2968	3681.09	11124.58	0.0	78000.0
H5CSCARINS	3811	1063.23	1466.57	0.0	18000.0

H6CSCARINS	3233	931.59	737.10	0.0	6000.0
H7CSCARINS	3843	994.62	855.47	0.0	11000.0
H8CSCARINS	3711	961.24	797.59	0.0	7525.0
H9CSCARINS	3560	963.11	809.40	0.0	6000.0
H10CSCARINS	4328	983.47	854.42	0.0	6800.0
H11CSCARINS	4030	1004.80	891.78	0.0	7000.0
H12CSCARINS	3702	1034.29	943.32	0.0	10000.0
H13CSCARINS	3469	1125.28	1065.15	0.0	10000.0
H14CSCARINS	3282	1208.26	1186.75	0.0	12000.0
H15CSCARINS	2960	1203.30	1168.66	0.0	12000.0
H5CSCARMNT	3809	1081.54	3573.21	0.0	75603.0
H6CSCARMNT	3234	487.02	647.51	0.0	5000.0
H7CSCARMNT	3843	528.14	708.83	0.0	7000.0
H8CSCARMNT	3711	528.97	714.43	0.0	7649.0
H9CSCARMNT	3559	545.30	732.53	0.0	5000.0
H10CSCARMNT	4328	568.71	807.14	0.0	7500.0
H11CSCARMNT	4030	546.38	827.22	0.0	10000.0
H12CSCARMNT	3702	567.31	900.63	0.0	9000.0
H13CSCARMNT	3470	577.42	903.70	0.0	8000.0
H14CSCARMNT	3282	587.56	881.06	0.0	7500.0
H15CSCARMNT	2960	573.04	916.44	0.0	10300.0
H5CSCARFIN	3811	530.48	1528.03	0.0	18000.0
H6CSCARPAY	3233	1803.53	5503.54	0.0	100800.0
H7CSCARPAY	3844	1550.08	3285.12	0.0	46296.0
H8CSCARPAY	3713	1605.24	4288.49	0.0	72000.0
H9CSCARPAY	3560	1303.12	2960.74	0.0	43200.0
H10CSCARPAY	4328	1379.45	3473.71	0.0	60000.0
H11CSCARPAY	4030	1474.87	4271.03	0.0	77760.0
H12CSCARPAY	3702	1555.68	3973.73	0.0	60000.0
H13CSCARPAY	3469	1852.15	4563.52	0.0	82800.0
H14CSCARPAY	3281	2057.11	5196.88	0.0	90720.0
H15CSCARPAY	2962	1996.98	4961.35	0.0	76692.0
H5CSGAS	3809	1006.93	1034.37	0.0	10428.0
H6CSGAS	3233	1242.00	1319.66	0.0	14400.0
H7CSGAS	3844	1660.20	1716.06	0.0	15642.0
H8CSGAS	3711	1696.53	1622.60	0.0	13035.0
H9CSGAS	3561	1449.29	1445.12	0.0	12514.0
H10CSGAS	4330	2001.14	2023.98	0.0	16560.0
H11CSGAS	4031	1852.11	1800.74	0.0	12000.0
H12CSGAS	3702	1463.82	1534.54	0.0	16800.0
H13CSGAS	3471	1376.58	1413.54	0.0	10800.0
H14CSGAS	3282	1462.29	1528.83	0.0	13035.0
H15CSGAS	2964	1626.34	1827.96	0.0	14599.0

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 cleaning or imputation					2931	2629	3124	3116	2991	3668
1.Cleaning only					106	81	78	92	63	82
2.Imputation only					726	500	610	485	479	561
3.Imputation and cleaning					26	14	20	11	17	8

Value	w11	w12	w13	w14	w15
.T=Resp <10 cat	50	48	52	59	49
0.No cleaning or imputation	3361	3145	2912	2760	2494
1.Cleaning only	94	82	70	75	48
2.Imputation only	552	447	459	414	388
3.Imputation and cleaning	10	15	13	15	7

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 15 which asks about 2021 spending.

The transportation spending components are summed to create the total transportation spending measure. A flag indicates whether any of its components were imputed or cleaned. 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 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 or cleaned. 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

CAMS2001-2021:

B1_YR	B1. PURCHASE/LEASE AUTO
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CAMS2003-2021:

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
CAMS2005-2021:	
B24A_YR	B24A. CAR PAYMENTS - PER
B24_YR	B24. CAR PAYMENTS INTEREST/PRINCIPAL
B39A_YR	B39A. GASOLINE - PER
B39_YR	B39. GASOLINE

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year
 RAEDUC: R education (categ)
 RAGENDER: R Gender
 RAHISPAN: R Hispanic
 RwADL6A:Ww Any Diff-sum of ADLs /0-6
 RwmSTAT:Ww R Marital Status
 RwsHLT:Ww Self-report of health
 RwwORK:Ww R working for pay
 SwADL6A:Ww Any Diff-sum of ADLs /0-6
 SwBYEAR: S birth year
 SwEDUC: S education (categ)
 SwHISPAN: S Hispanic
 SwIWSTAT:Ww S Interview Status
 SwsHLT:Ww Self-report of health
 SwwORK:Ww S working for pay
 HwAHOUS:Ww Assets:Primary Residence–Cross-wave
 HwATOTB:Ww Total of all Assets–Cross-wave
 HwATRAN:Ww Assets:Transportation–Cross-wave
 HwHHRES:Ww Number of people in HH
 HwITOT:Ww Income: Total HHold / R+Sp only

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
15	H15CSHOUS	H15CSHOUS:W15 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
15	H15CSHOUSF	H15CSHOUSF:W15 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
15	H15CSHRINS	H15CSHRINS:W15 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
15	H15CSRENT	H15CSRENT:W15 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
15	H15CSPTAX	H15CSPTAX:W15 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
15	H15CSMORTINT	H15CSMORTINT:W15	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
15	H15CSHREPSUP	H15CSHREPSUP:W15	CAMS Home Repairs Supplies	Categ
6	H6CSHREPSVC	H6CSHREPSVC:W6	CAMS Home Repairs Services	Categ
7	H7CSHREPSVC	H7CSHREPSVC:W7	CAMS Home Repairs Services	Categ
8	H8CSHREPSVC	H8CSHREPSVC:W8	CAMS Home Repairs Services	Categ
9	H9CSHREPSVC	H9CSHREPSVC:W9	CAMS Home Repairs Services	Categ
10	H10CSHREPSVC	H10CSHREPSVC:W10	CAMS Home Repairs Services	Categ
11	H11CSHREPSVC	H11CSHREPSVC:W11	CAMS Home Repairs Services	Categ
12	H12CSHREPSVC	H12CSHREPSVC:W12	CAMS Home Repairs Services	Categ
13	H13CSHREPSVC	H13CSHREPSVC:W13	CAMS Home Repairs Services	Categ
14	H14CSHREPSVC	H14CSHREPSVC:W14	CAMS Home Repairs Services	Categ
15	H15CSHREPSVC	H15CSHREPSVC:W15	CAMS Home Repairs Services	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
15	H15CSMORT	H15CSMORT:W15	CAMS Mortgage Interest + Principal Payments	Categ

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSHOUS	3789	6860.22	10472.16	0.0	209360.0
H6CSHOUS	3224	7102.74	8922.68	0.0	109815.0
H7CSHOUS	3832	7469.72	7909.85	0.0	80573.0
H8CSHOUS	3704	8198.23	9320.84	0.0	155113.0
H9CSHOUS	3550	7909.80	8182.61	0.0	92592.0
H10CSHOUS	4319	8394.84	8883.87	0.0	93094.0
H11CSHOUS	4017	8466.42	8706.86	0.0	80829.0
H12CSHOUS	3689	8593.30	9262.24	0.0	91838.0
H13CSHOUS	3454	9188.39	9549.67	0.0	84746.0
H14CSHOUS	3264	9585.15	9911.00	0.0	82933.0
H15CSHOUS	2937	10324.98	10769.61	0.0	102384.0
H5CSHOUSF	3789	0.50	0.87	0.0	3.0
H6CSHOUSF	3224	0.49	0.86	0.0	3.0
H7CSHOUSF	3832	0.44	0.83	0.0	3.0
H8CSHOUSF	3704	0.38	0.78	0.0	3.0
H9CSHOUSF	3550	0.39	0.79	0.0	3.0
H10CSHOUSF	4319	0.41	0.80	0.0	3.0

H11CSHOUSF	4017	0.42	0.82	0.0	3.0
H12CSHOUSF	3689	0.40	0.80	0.0	3.0
H13CSHOUSF	3454	0.42	0.81	0.0	3.0
H14CSHOUSF	3264	0.41	0.81	0.0	3.0
H15CSHOUSF	2937	0.42	0.81	0.0	3.0
H5CSHRINS	3795	574.22	921.56	0.0	14400.0
H6CSHRINS	3224	584.17	666.50	0.0	8500.0
H7CSHRINS	3832	652.28	799.91	0.0	12000.0
H8CSHRINS	3705	719.64	902.51	0.0	10000.0
H9CSHRINS	3553	732.51	955.89	0.0	18600.0
H10CSHRINS	4321	738.66	1027.91	0.0	15396.0
H11CSHRINS	4019	746.54	950.00	0.0	12000.0
H12CSHRINS	3691	794.51	1036.27	0.0	12000.0
H13CSHRINS	3456	774.30	949.34	0.0	9000.0
H14CSHRINS	3266	838.17	1056.81	0.0	11711.0
H15CSHRINS	2937	947.24	1391.50	0.0	16140.0
H5CSRENT	3864	1111.66	2836.66	0.0	28020.0
H6CSRENT	3253	1219.30	3298.75	0.0	36396.0
H7CSRENT	3878	1380.41	3702.56	0.0	38400.0
H8CSRENT	3736	1519.51	4047.69	0.0	40800.0
H9CSRENT	3587	1643.10	4447.80	0.0	46800.0
H10CSRENT	4369	1932.42	4583.99	0.0	54000.0
H11CSRENT	4065	2193.13	5267.77	0.0	52200.0
H12CSRENT	3734	2333.91	5759.13	0.0	72000.0
H13CSRENT	3502	2694.72	6641.99	0.0	84000.0
H14CSRENT	3319	2822.16	7035.28	0.0	80400.0
H15CSRENT	2977	2721.85	6139.19	0.0	60000.0
H5CSPTAX	3860	1296.06	1770.69	0.0	16000.0
H6CSPTAX	3247	1386.70	1785.75	0.0	16000.0
H7CSPTAX	3872	1527.71	2089.91	0.0	20568.0
H8CSPTAX	3729	1637.09	2241.63	0.0	23956.0
H9CSPTAX	3581	1701.73	2348.24	0.0	22000.0
H10CSPTAX	4358	1677.80	2498.15	0.0	30000.0
H11CSPTAX	4057	1655.37	2441.66	0.0	22000.0
H12CSPTAX	3726	1655.54	2448.12	0.0	21647.0
H13CSPTAX	3497	1714.92	2612.76	0.0	30000.0
H14CSPTAX	3312	1774.90	2739.94	0.0	30000.0
H15CSPTAX	2966	1960.93	3054.67	0.0	30000.0
H5CSMORTINT	3858	1726.05	3382.56	0.0	33494.0
H6CSMORTINT	3253	1759.04	3545.53	0.0	44167.0
H7CSMORTINT	3875	2020.29	4081.61	0.0	73213.0
H8CSMORTINT	3734	2400.51	4874.88	0.0	67112.0
H9CSMORTINT	3583	2237.86	4809.45	0.0	64540.0
H10CSMORTINT	4366	2366.18	4421.58	0.0	42985.0
H11CSMORTINT	4064	2314.24	4531.26	0.0	56592.0
H12CSMORTINT	3733	2201.22	4687.22	0.0	66985.0
H13CSMORTINT	3504	2340.85	4868.80	0.0	72576.0
H14CSMORTINT	3320	2191.97	4513.74	0.0	66296.0
H15CSMORTINT	2978	2206.42	4475.31	0.0	50886.0
H5CSHREPMNT	3790	2139.51	9169.18	0.0	208560.0
H6CSHREPSUP	3225	807.39	3176.64	0.0	60000.0
H7CSHREPSUP	3834	776.87	2079.02	0.0	30000.0
H8CSHREPSUP	3704	798.64	2269.53	0.0	35000.0

H9CSHREPSUP	3550	641.94	1486.50	0.0	17253.0
H10CSHREPSUP	4319	694.07	2095.92	0.0	32000.0
H11CSHREPSUP	4018	681.18	1994.46	0.0	32800.0
H12CSHREPSUP	3689	645.25	1676.02	0.0	22000.0
H13CSHREPSUP	3457	675.06	1855.31	0.0	30000.0
H14CSHREPSUP	3264	784.25	2424.48	0.0	39000.0
H15CSHREPSUP	2938	1121.83	3268.10	0.0	43000.0
H6CSHREPSVC	3225	1337.31	5493.34	0.0	90000.0
H7CSHREPSVC	3832	1097.85	3189.68	0.0	37000.0
H8CSHREPSVC	3704	1103.20	3975.74	0.0	120000.0
H9CSHREPSVC	3550	933.99	2459.96	0.0	30000.0
H10CSHREPSVC	4319	961.64	3379.65	0.0	50000.0
H11CSHREPSVC	4018	869.80	2814.35	0.0	35000.0
H12CSHREPSVC	3690	927.92	2994.37	0.0	40000.0
H13CSHREPSVC	3458	949.39	2806.26	0.0	35000.0
H14CSHREPSVC	3264	1135.97	3348.69	0.0	40000.0
H15CSHREPSVC	2937	1350.95	4138.74	0.0	50000.0
H5CSMORT	3858	2912.82	5656.04	0.0	52800.0
H6CSMORT	3253	3140.61	6247.51	0.0	70000.0
H7CSMORT	3875	3760.07	7554.72	0.0	138000.0
H8CSMORT	3734	4253.05	8645.67	0.0	126048.0
H9CSMORT	3583	4146.23	8873.03	0.0	123600.0
H10CSMORT	4366	4342.06	8085.94	0.0	82368.0
H11CSMORT	4064	4046.62	7925.74	0.0	102000.0
H12CSMORT	3733	4129.47	8828.59	0.0	123052.0
H13CSMORT	3504	4104.15	8437.24	0.0	114000.0
H14CSMORT	3320	4612.03	9412.50	0.0	132000.0
H15CSMORT	2978	4849.85	9776.07	0.0	118000.0

Categorical Variable Codes

HwCSHOUSE: 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 cleaning or imputation						2801	2412	2968	2976	2838	3412
1.Cleaning only						133	61	55	66	57	72
2.Imputation only						803	733	797	646	640	815
3.Imputation and cleaning						52	18	12	16	15	20

Value		w11	w12	w13	w14	w15
.T=Resp <10 cat		50	48	52	59	49
0.No cleaning or imputation		3138	2913	2697	2569	2295
1.Cleaning only		71	83	86	74	48
2.Imputation only		789	673	648	595	584
3.Imputation and cleaning		19	20	23	26	10

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 15 which asks about 2021 spending.

The housing spending components are summed to create the total housing spending measure. A flag indicates whether any of its components were imputed or cleaned. 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 spending on housing, including home/renters insurance (HwCSHRINS), rent (HwCSRENT), property taxes (HwCSPTAX), mortgage interest (HwCSMORTINT), and home repair supplies (HwCSHREPSUP) and services (HwCSHREPSVC) 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 or cleaned. 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. MORTGAGE - 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. MORTGAGE - 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
CAMS2003-2021:	
B7_YR	B7. HOME/RENTERS INSURANCE
B8_YR	B8. PROPERTY TAXES
CAMS2005-2021:	
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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year
 RAEDUC: R education (categ)
 RAGENDER: R Gender
 RAHISPAN: R Hispanic
 RwADL6A:Ww Any Diff-sum of ADLs /0-6
 RwMSTAT:Ww R Marital Status
 RwSHLT:Ww Self-report of health
 RwWORK:Ww R working for pay
 SwADL6A:Ww Any Diff-sum of ADLs /0-6
 SwBYEAR: S birth year
 SwEDUC: S education (categ)
 SwHISPAN: S Hispanic
 SwIWSTAT:Ww S Interview Status
 SwSHLT:Ww Self-report of health
 SwWORK:Ww S working for pay
 HwAHOUS:Ww Assets:Primary Residence–Cross-wave
 HwATOTB:Ww Total of all Assets–Cross-wave
 HwATRAN:Ww Assets:Transportation–Cross-wave
 HwHHRES:Ww Number of people in HH
 HwITOT:Ww Income: Total HHold / R+Sp only

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	39144.34	28814.82	174.0	310676.0
H6CCTOT	3224	41802.76	29731.91	126.0	339080.0
H7CCTOT	3832	43508.38	31959.41	0.0	335339.0
H8CCTOT	3704	46483.83	34459.31	107.0	426386.0
H9CCTOT	3550	44306.46	32656.76	122.0	513532.0
H10CCTOT	4319	41785.36	30323.79	81.0	459988.0
H11CCTOT	4017	40412.16	28541.76	74.0	270675.0
H12CCTOT	3689	41930.99	30543.02	63.0	318853.0
H13CCTOT	3454	43358.70	32353.30	100.0	417374.0
H14CCTOT	3264	46132.92	33417.11	0.0	331943.0

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 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").

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 DISHWASHER
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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year

RAEDUC: R education (categ)

RAGENDER: R Gender

RAHISPAN: R Hispanic

RwMSTAT:Ww R Marital Status

RwWORK:Ww R working for pay
HwAHOUS:Ww Assets:Primary Residence–Cross-wave
HwATOTB:Ww Total of all Assets–Cross-wave
HwATRAN:Ww Assets:Transportation–Cross-wave
HwHHRES:Ww Number of people in HH
HwITOT:Ww Income: Total HHold / R+Sp only

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	255.76	161.70	40.0	1348.0
H6CCDUR	3224	229.58	145.83	43.0	1265.0
H7CCDUR	3832	266.56	185.78	0.0	1893.0
H8CCDUR	3704	302.16	223.22	11.0	2675.0
H9CCDUR	3550	282.48	164.91	25.0	1218.0
H10CCDUR	4319	265.32	168.03	18.0	1163.0
H11CCDUR	4017	230.20	133.08	38.0	1165.0
H12CCDUR	3689	218.31	148.65	24.0	1008.0
H13CCDUR	3454	217.66	137.13	41.0	775.0
H14CCDUR	3264	217.95	126.61	0.0	844.0

H5CCWMET	3789	97.21	38.81	24.0	298.0
H6CCWMET	3224	101.33	46.50	24.0	257.0
H7CCWMET	3802	109.02	60.50	21.0	362.0
H8CCWMET	3663	115.33	68.03	19.0	461.0
H9CCWMET	3511	97.20	58.13	18.0	401.0
H10CCWMET	4288	100.01	60.35	22.0	398.0
H11CCWMET	3994	108.32	69.56	12.0	614.0
H12CCWMET	3662	111.49	80.57	11.0	597.0
H13CCWMET	3420	123.12	83.00	19.0	400.0
H14CCWMET	3164	121.29	71.33	18.0	700.0
H5CCTV	3789	46.10	20.92	9.0	145.0
H6CCTV	3224	43.20	20.07	9.0	142.0
H7CCTV	3802	54.21	33.90	5.0	205.0
H8CCTV	3663	95.73	73.04	11.0	448.0
H9CCTV	3511	110.99	57.07	30.0	381.0
H10CCTV	4288	78.87	43.32	14.0	276.0
H11CCTV	3994	59.78	27.00	20.0	184.0
H12CCTV	3662	50.20	21.09	14.0	138.0
H13CCTV	3420	46.28	21.85	15.0	143.0
H14CCTV	3164	38.12	17.77	7.0	114.0
H5CCPC	3789	112.45	112.55	5.0	1018.0
H6CCPC	3224	85.04	89.03	2.0	915.0
H7CCPC	3802	102.93	102.66	4.0	906.0
H8CCPC	3663	89.61	89.48	3.0	824.0
H9CCPC	3511	74.15	57.75	7.0	500.0
H10CCPC	4288	86.70	75.46	5.0	552.0
H11CCPC	3994	61.79	50.11	3.0	383.0
H12CCPC	3662	56.68	55.40	3.0	421.0
H13CCPC	3420	47.99	43.14	3.0	272.0
H14CCPC	3164	58.77	50.16	4.0	259.0

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.

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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

RABYEAR: R birth year
 RAEDUC: R education (categ)
 RAGENDER: R Gender
 RAHISPAN: R Hispanic
 RwmSTAT:Ww R Marital Status
 RwwORK:Ww R working for pay
 HwATOTB:Ww Total of all Assets–Cross-wave
 HwHHRES:Ww Number of people in HH
 HwITOT:Ww Income: Total HHold / R+Sp only

2.15 Total Transportation Consumption

Wave	Variable	Label	Type
5	H5CCTTRANS	H5CCTTRANS:W5 CAMS Total Transportation Consumption	Categ
6	H6CCTTRANS	H6CCTTRANS:W6 CAMS Total Transportation Consumption	Categ
7	H7CCTTRANS	H7CCTTRANS:W7 CAMS Total Transportation Consumption	Categ
8	H8CCTTRANS	H8CCTTRANS:W8 CAMS Total Transportation Consumption	Categ
9	H9CCTTRANS	H9CCTTRANS:W9 CAMS Total Transportation Consumption	Categ
10	H10CCTTRANS	H10CCTTRANS:W10 CAMS Total Transportation Consumption	Categ
11	H11CCTTRANS	H11CCTTRANS:W11 CAMS Total Transportation Consumption	Categ
12	H12CCTTRANS	H12CCTTRANS:W12 CAMS Total Transportation Consumption	Categ
13	H13CCTTRANS	H13CCTTRANS:W13 CAMS Total Transportation Consumption	Categ
14	H14CCTTRANS	H14CCTTRANS: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
H5CCTTRANS	3789	4502.51	4276.73	0.0	47055.0
H6CCTTRANS	3224	4547.78	4082.24	0.0	57012.0
H7CCTTRANS	3832	4958.92	4716.27	0.0	86633.0
H8CCTTRANS	3704	5084.92	4762.28	0.0	64820.0
H9CCTTRANS	3550	4726.64	4718.47	0.0	67657.0
H10CCTTRANS	4319	5127.63	4843.80	0.0	69087.0
H11CCTTRANS	4017	4806.10	4275.49	0.0	46375.0
H12CCTTRANS	3689	4436.33	4214.31	0.0	55915.0
H13CCTTRANS	3454	4488.64	4207.84	0.0	48122.0
H14CCTTRANS	3264	4856.23	4578.63	0.0	98205.0
H5CCCARUSE	3789	3490.27	3811.70	0.0	46355.0
H6CCCARUSE	3224	3302.31	3422.58	0.0	46584.0
H7CCCARUSE	3832	3293.73	3806.02	0.0	82133.0
H8CCCARUSE	3704	3385.18	3923.29	0.0	62320.0
H9CCCARUSE	3550	3273.35	3999.93	0.0	64529.0
H10CCCARUSE	4319	3122.51	3794.55	0.0	66480.0
H11CCCARUSE	4017	2948.05	3266.41	0.0	44550.0
H12CCCARUSE	3689	2967.35	3400.67	0.0	51715.0
H13CCCARUSE	3454	3105.77	3501.91	0.0	46036.0
H14CCCARUSE	3264	3386.20	3851.28	0.0	94555.0

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.

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
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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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

 HwATRAN:Ww Assets:Transportation–Cross-wave

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	14442.18	14190.20	0.0	255006.0
H6CCHOUS	3224	15412.33	14496.94	0.0	148299.0
H7CCHOUS	3832	17212.55	17168.88	0.0	217132.0
H8CCHOUS	3704	19564.38	20073.70	0.0	269912.0
H9CCHOUS	3550	18260.53	19635.57	0.0	475622.0
H10CCHOUS	4319	15070.44	16073.56	0.0	406815.0
H11CCHOUS	4017	13944.43	13260.44	29.0	181907.0
H12CCHOUS	3689	14702.89	14244.45	25.0	170211.0
H13CCHOUS	3454	15458.26	15420.31	0.0	231887.0
H14CCHOUS	3264	17203.48	16141.97	0.0	175813.0
H5CCHREQ	3789	11239.91	13339.15	0.0	250059.0
H6CCHREQ	3224	11889.21	13504.63	0.0	132799.0
H7CCHREQ	3832	13287.29	16101.16	0.0	213732.0
H8CCHREQ	3704	15308.15	18932.18	0.0	251912.0
H9CCHREQ	3550	13703.29	18431.83	0.0	468322.0
H10CCHREQ	4319	10307.46	14666.08	0.0	394315.0
H11CCHREQ	4017	9044.60	11527.59	0.0	162663.0
H12CCHREQ	3689	9586.74	12540.84	0.0	153191.0
H13CCHREQ	3454	9930.70	13513.31	0.0	223412.0

H14CCHREQ	3264	11349.50	14351.22	0.0	157191.0
H5CCHREQF	3789	2.68	1.26	0.0	6.0
H6CCHREQF	3224	2.70	1.26	0.0	6.0
H7CCHREQF	3832	2.66	1.32	0.0	6.0
H8CCHREQF	3704	2.69	1.35	0.0	6.0
H9CCHREQF	3550	2.72	1.38	0.0	6.0
H10CCHREQF	4319	2.55	1.48	0.0	6.0
H11CCHREQF	4017	2.53	1.49	0.0	6.0
H12CCHREQF	3689	2.53	1.51	0.0	6.0
H13CCHREQF	3454	2.45	1.54	0.0	6.0
H14CCHREQF	3264	2.49	1.58	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					542	445	588	571	549	865
1. Homeowner: val from prev					68	53	89	68	60	97
2. Homeowner: val from foll					30	31	31	46	34	34
3. Homeowner: val from prev					2792	2411	2740	2608	2454	2874
4. Own trans: half of val f					228	167	214	215	236	201
5. Homeowner: no val from p					37	15	56	69	69	64
6. Not renter or homeowner					92	102	114	127	148	184

Value	w11	w12	w13	w14	w15
.T=Resp <10 cat	50	48	52	59	
0. Renter	845	781	798	758	
1. Homeowner: val from prev	72	91	104	80	
2. Homeowner: val from foll	42	35	30	63	
3. Homeowner: val from prev	2616	2330	2087	1897	
4. Own trans: half of val f	219	241	254	231	
5. Homeowner: no val from p	64	58	57	111	
6. Not renter or homeowner	159	153	124	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."

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

RAND HRS Longitudinal File 2020 (V2) Variables Used

RAND HRS 2000-2020:

HwAHOUS:Ww Assets:Primary Residence-Cross-wave

2.17 Category-level Flags

Descriptive Statistics

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CSDISHWF	3847	0.08	0.55	0.0	4.0
H6CSDISHWF	3248	0.09	0.57	0.0	4.0
H7CSDISHWF	3864	0.10	0.60	0.0	4.0
H8CSDISHWF	3727	0.12	0.66	0.0	4.0
H9CSDISHWF	3577	0.05	0.42	0.0	4.0
H10CSDISHWF	4353	0.06	0.46	0.0	4.0
H11CSDISHWF	4047	0.06	0.46	0.0	4.0
H12CSDISHWF	3729	0.05	0.41	0.0	4.0
H13CSDISHWF	3487	0.05	0.41	0.0	4.0
H14CSDISHWF	3301	0.04	0.39	0.0	4.0
H15CSDISHWF	2970	0.06	0.48	0.0	4.0
H5CSFRIDGEF	3844	0.13	0.69	0.0	4.0
H6CSFRIDGEF	3246	0.18	0.83	0.0	4.0
H7CSFRIDGEF	3864	0.20	0.87	0.0	4.0
H8CSFRIDGEF	3725	0.13	0.68	0.0	4.0
H9CSFRIDGEF	3575	0.06	0.47	0.0	4.0
H10CSFRIDGEF	4355	0.06	0.49	0.0	4.0
H11CSFRIDGEF	4048	0.07	0.51	0.0	4.0
H12CSFRIDGEF	3728	0.05	0.44	0.0	4.0
H13CSFRIDGEF	3485	0.06	0.45	0.0	4.0
H14CSFRIDGEF	3301	0.06	0.44	0.0	4.0
H15CSFRIDGEF	2970	0.08	0.53	0.0	4.0
H5CSWASHDRYF	3845	0.07	0.53	0.0	4.0
H6CSWASHDRYF	3246	0.09	0.59	0.0	4.0
H7CSWASHDRYF	3865	0.12	0.67	0.0	4.0
H8CSWASHDRYF	3726	0.12	0.66	0.0	4.0
H9CSWASHDRYF	3576	0.06	0.45	0.0	4.0
H10CSWASHDRYF	4352	0.06	0.46	0.0	4.0
H11CSWASHDRYF	4048	0.06	0.46	0.0	4.0
H12CSWASHDRYF	3728	0.05	0.42	0.0	4.0
H13CSWASHDRYF	3486	0.06	0.44	0.0	4.0
H14CSWASHDRYF	3299	0.05	0.41	0.0	4.0
H15CSWASHDRYF	2971	0.07	0.48	0.0	4.0
H5CSPCF	3845	0.10	0.59	0.0	4.0
H6CSPCF	3246	0.11	0.62	0.0	4.0
H7CSPCF	3865	0.11	0.62	0.0	4.0
H8CSPCF	3728	0.12	0.66	0.0	4.0
H9CSPCF	3576	0.06	0.44	0.0	4.0
H10CSPCF	4352	0.07	0.48	0.0	4.0
H11CSPCF	4046	0.06	0.47	0.0	4.0
H12CSPCF	3727	0.05	0.40	0.0	4.0
H13CSPCF	3487	0.05	0.44	0.0	4.0
H14CSPCF	3302	0.05	0.42	0.0	4.0
H15CSPCF	2970	0.07	0.51	0.0	4.0
H5CSTVF	3844	0.11	0.62	0.0	4.0
H6CSTVF	3248	0.10	0.60	0.0	4.0
H7CSTVF	3862	0.11	0.64	0.0	4.0
H8CSTVF	3726	0.12	0.67	0.0	4.0

H9CSTVF	3578	0.07	0.47	0.0	4.0
H10CSTVF	4352	0.07	0.48	0.0	4.0
H11CSTVF	4046	0.07	0.48	0.0	4.0
H12CSTVF	3729	0.05	0.41	0.0	4.0
H13CSTVF	3486	0.05	0.43	0.0	4.0
H14CSTVF	3300	0.05	0.40	0.0	4.0
H15CSTVF	2970	0.07	0.50	0.0	4.0
H5CSCASHGIFTF	3790	0.08	0.40	0.0	2.0
H6CSCASHGIFTF	3225	0.08	0.39	0.0	2.0
H7CSCASHGIFTF	3835	0.08	0.39	0.0	2.0
H8CSCASHGIFTF	3704	0.07	0.38	0.0	2.0
H9CSCASHGIFTF	3550	0.07	0.36	0.0	2.0
H10CSCASHGIFTF	4320	0.06	0.35	0.0	2.0
H11CSCASHGIFTF	4018	0.08	0.39	0.0	2.0
H12CSCASHGIFTF	3689	0.06	0.34	0.0	2.0
H13CSCASHGIFTF	3454	0.07	0.36	0.0	2.0
H14CSCASHGIFTF	3264	0.07	0.38	0.0	2.0
H15CSCASHGIFTF	2938	0.06	0.33	0.0	2.0
H5CSCLOTHF	3790	0.08	0.40	0.0	2.0
H6CSCLOTHF	3225	0.07	0.36	0.0	2.0
H7CSCLOTHF	3832	0.10	0.44	0.0	2.0
H8CSCLOTHF	3706	0.09	0.42	0.0	2.0
H9CSCLOTHF	3551	0.08	0.38	0.0	2.0
H10CSCLOTHF	4319	0.08	0.38	0.0	2.0
H11CSCLOTHF	4017	0.11	0.45	0.0	2.0
H12CSCLOTHF	3689	0.06	0.34	0.0	2.0
H13CSCLOTHF	3455	0.06	0.35	0.0	2.0
H14CSCLOTHF	3265	0.07	0.36	0.0	2.0
H15CSCLOTHF	2938	0.07	0.37	0.0	2.0
H5CSCONTSF	3860	0.16	0.67	0.0	3.0
H6CSCONTSF	3251	0.14	0.63	0.0	3.0
H7CSCONTSF	3876	0.14	0.63	0.0	3.0
H8CSCONTSF	3733	0.13	0.60	0.0	3.0
H9CSCONTSF	3584	0.12	0.57	0.0	3.0
H10CSCONTSF	4361	0.13	0.60	0.0	3.0
H11CSCONTSF	4060	0.15	0.64	0.0	3.0
H12CSCONTSF	3727	0.12	0.58	0.0	3.0
H13CSCONTSF	3497	0.13	0.61	0.0	3.0
H14CSCONTSF	3314	0.15	0.65	0.0	3.0
H15CSCONTSF	2972	0.13	0.59	0.0	3.0
H5CSDINOUTF	3863	0.16	0.67	0.0	3.0
H6CSDINOUTF	3251	0.14	0.62	0.0	3.0
H7CSDINOUTF	3874	0.14	0.63	0.0	3.0
H8CSDINOUTF	3733	0.12	0.58	0.0	3.0
H9CSDINOUTF	3583	0.13	0.60	0.0	3.0
H10CSDINOUTF	4363	0.12	0.58	0.0	3.0
H11CSDINOUTF	4058	0.13	0.61	0.0	3.0
H12CSDINOUTF	3731	0.11	0.55	0.0	3.0
H13CSDINOUTF	3499	0.11	0.56	0.0	3.0
H14CSDINOUTF	3312	0.13	0.61	0.0	3.0
H15CSDINOUTF	2976	0.11	0.56	0.0	3.0
H5CSDRUGSF	3792	0.08	0.39	0.0	2.0
H6CSDRUGSF	3226	0.07	0.36	0.0	2.0
H7CSDRUGSF	3832	0.10	0.44	0.0	2.0

H8CSDRUGSF	3704	0.10	0.43	0.0	2.0
H9CSDRUGSF	3550	0.10	0.43	0.0	2.0
H10CSDRUGSF	4319	0.09	0.42	0.0	2.0
H11CSDRUGSF	4019	0.12	0.47	0.0	2.0
H12CSDRUGSF	3689	0.08	0.39	0.0	2.0
H13CSDRUGSF	3455	0.07	0.38	0.0	2.0
H14CSDRUGSF	3264	0.07	0.36	0.0	2.0
H15CSDRUGSF	2938	0.09	0.41	0.0	2.0
H5CSELECTRICF	3796	0.14	0.49	0.0	2.0
H6CSELECTRICF	3224	0.17	0.50	0.0	2.0
H7CSELECTRICF	3832	0.10	0.41	0.0	2.0
H8CSELECTRICF	3705	0.10	0.40	0.0	2.0
H9CSELECTRICF	3552	0.11	0.41	0.0	2.0
H10CSELECTRICF	4320	0.10	0.40	0.0	2.0
H11CSELECTRICF	4017	0.12	0.44	0.0	2.0
H12CSELECTRICF	3689	0.10	0.40	0.0	2.0
H13CSELECTRICF	3456	0.10	0.40	0.0	2.0
H14CSELECTRICF	3265	0.12	0.44	0.0	2.0
H15CSELECTRICF	2940	0.12	0.46	0.0	2.0
H5CSFDBEVF	3859	0.15	0.65	0.0	3.0
H6CSFDBEVF	3252	0.15	0.66	0.0	3.0
H7CSFDBEVF	3868	0.15	0.63	0.0	3.0
H8CSFDBEVF	3731	0.12	0.59	0.0	3.0
H9CSFDBEVF	3580	0.15	0.64	0.0	3.0
H10CSFDBEVF	4362	0.14	0.62	0.0	3.0
H11CSFDBEVF	4056	0.14	0.62	0.0	3.0
H12CSFDBEVF	3722	0.11	0.55	0.0	3.0
H13CSFDBEVF	3495	0.12	0.58	0.0	3.0
H14CSFDBEVF	3309	0.14	0.63	0.0	3.0
H15CSFDBEVF	2972	0.13	0.58	0.0	3.0
H5CSHEATF	3792	0.25	0.66	0.0	2.0
H6CSHEATF	3224	0.25	0.64	0.0	2.0
H7CSHEATF	3832	0.17	0.52	0.0	2.0
H8CSHEATF	3705	0.18	0.53	0.0	2.0
H9CSHEATF	3550	0.16	0.51	0.0	2.0
H10CSHEATF	4320	0.16	0.51	0.0	2.0
H11CSHEATF	4017	0.18	0.54	0.0	2.0
H12CSHEATF	3689	0.15	0.50	0.0	2.0
H13CSHEATF	3455	0.16	0.51	0.0	2.0
H14CSHEATF	3264	0.15	0.50	0.0	2.0
H15CSHEATF	2938	0.16	0.53	0.0	2.0
H5CSHLTHINSF	3855	0.25	0.82	0.0	3.0
H6CSHLTHINSF	3249	0.23	0.78	0.0	3.0
H7CSHLTHINSF	3868	0.24	0.80	0.0	3.0
H8CSHLTHINSF	3731	0.21	0.75	0.0	3.0
H9CSHLTHINSF	3582	0.22	0.77	0.0	3.0
H10CSHLTHINSF	4358	0.22	0.77	0.0	3.0
H11CSHLTHINSF	4056	0.22	0.76	0.0	3.0
H12CSHLTHINSF	3723	0.21	0.75	0.0	3.0
H13CSHLTHINSF	3493	0.23	0.78	0.0	3.0
H14CSHLTHINSF	3307	0.22	0.75	0.0	3.0
H15CSHLTHINSF	2965	0.21	0.72	0.0	3.0
H5CSHLTHSVCF	3791	0.09	0.42	0.0	2.0
H6CSHLTHSVCF	3224	0.10	0.44	0.0	2.0

H7CSHLTHSVCF	3833	0.10	0.44	0.0	2.0
H8CSHLTHSVCF	3704	0.11	0.46	0.0	2.0
H9CSHLTHSVCF	3550	0.09	0.42	0.0	2.0
H10CSHLTHSVCF	4319	0.09	0.42	0.0	2.0
H11CSHLTHSVCF	4020	0.12	0.48	0.0	2.0
H12CSHLTHSVCF	3689	0.08	0.39	0.0	2.0
H13CSHLTHSVCF	3454	0.08	0.38	0.0	2.0
H14CSHLTHSVCF	3264	0.10	0.44	0.0	2.0
H15CSHLTHSVCF	2937	0.08	0.40	0.0	2.0
H5CSMEDSUPF	3791	0.13	0.49	0.0	2.0
H6CSMEDSUPF	3224	0.15	0.52	0.0	2.0
H7CSMEDSUPF	3832	0.15	0.52	0.0	2.0
H8CSMEDSUPF	3704	0.15	0.52	0.0	2.0
H9CSMEDSUPF	3550	0.12	0.48	0.0	2.0
H10CSMEDSUPF	4319	0.13	0.48	0.0	2.0
H11CSMEDSUPF	4020	0.12	0.47	0.0	2.0
H12CSMEDSUPF	3689	0.11	0.46	0.0	2.0
H13CSMEDSUPF	3455	0.10	0.43	0.0	2.0
H14CSMEDSUPF	3264	0.11	0.46	0.0	2.0
H15CSMEDSUPF	2937	0.10	0.44	0.0	2.0
H5CSTELECOMF	3794	0.10	0.43	0.0	2.0
H6CSTELECOMF	3224	0.14	0.45	0.0	2.0
H7CSTELECOMF	3832	0.09	0.39	0.0	2.0
H8CSTELECOMF	3705	0.10	0.40	0.0	2.0
H9CSTELECOMF	3551	0.10	0.39	0.0	2.0
H10CSTELECOMF	4321	0.09	0.38	0.0	2.0
H11CSTELECOMF	4017	0.11	0.42	0.0	2.0
H12CSTELECOMF	3689	0.09	0.38	0.0	2.0
H13CSTELECOMF	3456	0.12	0.43	0.0	2.0
H14CSTELECOMF	3264	0.11	0.42	0.0	2.0
H15CSTELECOMF	2939	0.12	0.44	0.0	2.0
H5CSTICKETF	3792	0.07	0.37	0.0	2.0
H6CSTICKETF	3224	0.06	0.34	0.0	2.0
H7CSTICKETF	3835	0.06	0.34	0.0	2.0
H8CSTICKETF	3705	0.07	0.37	0.0	2.0
H9CSTICKETF	3550	0.04	0.29	0.0	2.0
H10CSTICKETF	4320	0.04	0.29	0.0	2.0
H11CSTICKETF	4018	0.05	0.31	0.0	2.0
H12CSTICKETF	3690	0.04	0.29	0.0	2.0
H13CSTICKETF	3454	0.05	0.30	0.0	2.0
H14CSTICKETF	3265	0.06	0.33	0.0	2.0
H15CSTICKETF	2939	0.04	0.29	0.0	2.0
H5CSTRIPVACF	3791	0.07	0.38	0.0	2.0
H6CSTRIPVACF	3224	0.09	0.42	0.0	2.0
H7CSTRIPVACF	3834	0.09	0.41	0.0	2.0
H8CSTRIPVACF	3705	0.07	0.36	0.0	2.0
H9CSTRIPVACF	3552	0.05	0.32	0.0	2.0
H10CSTRIPVACF	4321	0.07	0.36	0.0	2.0
H11CSTRIPVACF	4018	0.08	0.40	0.0	2.0
H12CSTRIPVACF	3691	0.07	0.37	0.0	2.0
H13CSTRIPVACF	3455	0.07	0.37	0.0	2.0
H14CSTRIPVACF	3265	0.08	0.38	0.0	2.0
H15CSTRIPVACF	2938	0.06	0.35	0.0	2.0
H5CSWATERF	3795	0.19	0.58	0.0	2.0

H6CSWATERF	3224	0.19	0.56	0.0	2.0
H7CSWATERF	3833	0.13	0.47	0.0	2.0
H8CSWATERF	3704	0.13	0.46	0.0	2.0
H9CSWATERF	3551	0.11	0.43	0.0	2.0
H10CSWATERF	4320	0.11	0.42	0.0	2.0
H11CSWATERF	4017	0.13	0.46	0.0	2.0
H12CSWATERF	3689	0.11	0.42	0.0	2.0
H13CSWATERF	3455	0.11	0.42	0.0	2.0
H14CSWATERF	3265	0.12	0.45	0.0	2.0
H15CSWATERF	2939	0.12	0.45	0.0	2.0
H6CSPRSCAREF	3225	0.05	0.32	0.0	2.0
H7CSPRSCAREF	3832	0.08	0.39	0.0	2.0
H8CSPRSCAREF	3705	0.08	0.39	0.0	2.0
H9CSPRSCAREF	3550	0.07	0.37	0.0	2.0
H10CSPRSCAREF	4319	0.06	0.35	0.0	2.0
H11CSPRSCAREF	4017	0.09	0.42	0.0	2.0
H12CSPRSCAREF	3689	0.05	0.31	0.0	2.0
H13CSPRSCAREF	3456	0.05	0.31	0.0	2.0
H14CSPRSCAREF	3265	0.05	0.32	0.0	2.0
H15CSPRSCAREF	2939	0.06	0.35	0.0	2.0
H7CSFURNISHF	3833	0.08	0.39	0.0	2.0
H8CSFURNISHF	3704	0.07	0.37	0.0	2.0
H9CSFURNISHF	3551	0.05	0.33	0.0	2.0
H10CSFURNISHF	4319	0.07	0.36	0.0	2.0
H11CSFURNISHF	4018	0.07	0.37	0.0	2.0
H12CSFURNISHF	3689	0.06	0.34	0.0	2.0
H13CSFURNISHF	3458	0.07	0.36	0.0	2.0
H14CSFURNISHF	3264	0.08	0.39	0.0	2.0
H15CSFURNISHF	2938	0.07	0.37	0.0	2.0
H5CSHOBSPORTF	3791	0.08	0.40	0.0	2.0
H6CSHOBBYF	3224	0.07	0.36	0.0	2.0
H7CSHOBBYF	3834	0.06	0.35	0.0	2.0
H8CSHOBBYF	3705	0.08	0.38	0.0	2.0
H9CSHOBBYF	3550	0.05	0.30	0.0	2.0
H10CSHOBBYF	4319	0.05	0.30	0.0	2.0
H11CSHOBBYF	4018	0.05	0.32	0.0	2.0
H12CSHOBBYF	3691	0.05	0.31	0.0	2.0
H13CSHOBBYF	3454	0.04	0.29	0.0	2.0
H14CSHOBBYF	3266	0.06	0.33	0.0	2.0
H15CSHOBBYF	2939	0.05	0.30	0.0	2.0
H6CSSPORTF	3224	0.06	0.34	0.0	2.0
H7CSSPORTF	3836	0.06	0.34	0.0	2.0
H8CSSPORTF	3706	0.07	0.36	0.0	2.0
H9CSSPORTF	3550	0.04	0.30	0.0	2.0
H10CSSPORTF	4320	0.04	0.29	0.0	2.0
H11CSSPORTF	4018	0.05	0.31	0.0	2.0
H12CSSPORTF	3692	0.05	0.31	0.0	2.0
H13CSSPORTF	3455	0.04	0.29	0.0	2.0
H14CSSPORTF	3265	0.05	0.31	0.0	2.0
H15CSSPORTF	2939	0.05	0.31	0.0	2.0
H5CSHKYRDSUPF	3789	0.09	0.42	0.0	2.0
H6CSYRDSUPF	3224	0.07	0.37	0.0	2.0

H7CSYRDSUPF	3832	0.08	0.39	0.0	2.0
H8CSYRDSUPF	3704	0.09	0.42	0.0	2.0
H9CSYRDSUPF	3550	0.06	0.34	0.0	2.0
H10CSYRDSUPF	4319	0.06	0.34	0.0	2.0
H11CSYRDSUPF	4017	0.10	0.43	0.0	2.0
H12CSYRDSUPF	3690	0.06	0.35	0.0	2.0
H13CSYRDSUPF	3454	0.06	0.34	0.0	2.0
H14CSYRDSUPF	3265	0.06	0.35	0.0	2.0
H15CSYRDSUPF	2937	0.05	0.32	0.0	2.0
H6CSYRDSVCF	3224	0.06	0.34	0.0	2.0
H7CSYRDSVCF	3832	0.07	0.36	0.0	2.0
H8CSYRDSVCF	3705	0.07	0.37	0.0	2.0
H9CSYRDSVCF	3550	0.06	0.33	0.0	2.0
H10CSYRDSVCF	4319	0.06	0.35	0.0	2.0
H11CSYRDSVCF	4018	0.09	0.41	0.0	2.0
H12CSYRDSVCF	3689	0.05	0.30	0.0	2.0
H13CSYRDSVCF	3454	0.06	0.33	0.0	2.0
H14CSYRDSVCF	3266	0.05	0.32	0.0	2.0
H15CSYRDSVCF	2937	0.06	0.35	0.0	2.0
H6CSHKSUPF	3224	0.08	0.39	0.0	2.0
H7CSHKSUPF	3833	0.09	0.41	0.0	2.0
H8CSHKSUPF	3705	0.08	0.39	0.0	2.0
H9CSHKSUPF	3553	0.07	0.36	0.0	2.0
H10CSHKSUPF	4319	0.06	0.35	0.0	2.0
H11CSHKSUPF	4017	0.10	0.43	0.0	2.0
H12CSHKSUPF	3689	0.07	0.37	0.0	2.0
H13CSHKSUPF	3456	0.07	0.37	0.0	2.0
H14CSHKSUPF	3265	0.07	0.36	0.0	2.0
H15CSHKSUPF	2939	0.07	0.37	0.0	2.0
H6CSHKSVCF	3224	0.06	0.33	0.0	2.0
H7CSHKSVCF	3832	0.08	0.38	0.0	2.0
H8CSHKSVCF	3705	0.08	0.38	0.0	2.0
H9CSHKSVCF	3550	0.05	0.31	0.0	2.0
H10CSHKSVCF	4319	0.06	0.34	0.0	2.0
H11CSHKSVCF	4017	0.09	0.41	0.0	2.0
H12CSHKSVCF	3690	0.06	0.34	0.0	2.0
H13CSHKSVCF	3454	0.06	0.33	0.0	2.0
H14CSHKSVCF	3265	0.06	0.34	0.0	2.0
H15CSHKSVCF	2938	0.06	0.34	0.0	2.0
H5CSCARALLF	3843	0.03	0.25	0.0	2.0
H6CSCARALLF	3246	0.03	0.23	0.0	2.0
H7CSCARALLF	3863	0.04	0.28	0.0	2.0
H8CSCARALLF	3726	0.03	0.25	0.0	2.0
H9CSCARALLF	3577	0.03	0.23	0.0	2.0
H10CSCARALLF	4350	0.02	0.21	0.0	2.0
H11CSCARALLF	4043	0.03	0.25	0.0	2.0
H12CSCARALLF	3725	0.03	0.23	0.0	2.0
H13CSCARALLF	3486	0.03	0.23	0.0	2.0
H14CSCARALLF	3299	0.02	0.22	0.0	2.0
H15CSCARALLF	2968	0.03	0.24	0.0	2.0
H5CSCARINSF	3811	0.18	0.61	0.0	3.0
H6CSCARINSF	3233	0.18	0.60	0.0	3.0
H7CSCARINSF	3843	0.18	0.59	0.0	3.0
H8CSCARINSF	3711	0.14	0.53	0.0	3.0

H9CSCARINSF	3560	0.15	0.55	0.0	3.0
H10CSCARINSF	4328	0.16	0.56	0.0	3.0
H11CSCARINSF	4030	0.17	0.57	0.0	3.0
H12CSCARINSF	3702	0.16	0.56	0.0	3.0
H13CSCARINSF	3469	0.19	0.61	0.0	3.0
H14CSCARINSF	3282	0.18	0.60	0.0	3.0
H15CSCARINSF	2960	0.17	0.60	0.0	3.0
H5CSCARMNTF	3809	0.13	0.54	0.0	3.0
H6CSCARMNTF	3234	0.16	0.58	0.0	3.0
H7CSCARMNTF	3843	0.13	0.53	0.0	3.0
H8CSCARMNTF	3711	0.11	0.48	0.0	3.0
H9CSCARMNTF	3559	0.11	0.49	0.0	3.0
H10CSCARMNTF	4328	0.12	0.51	0.0	3.0
H11CSCARMNTF	4030	0.13	0.52	0.0	3.0
H12CSCARMNTF	3702	0.12	0.51	0.0	3.0
H13CSCARMNTF	3470	0.13	0.53	0.0	3.0
H14CSCARMNTF	3282	0.13	0.53	0.0	3.0
H15CSCARMNTF	2960	0.13	0.53	0.0	3.0
H5CSCARFINF	3811	0.27	0.73	0.0	3.0
H6CSCARPAYF	3233	0.10	0.48	0.0	3.0
H7CSCARPAYF	3844	0.11	0.49	0.0	3.0
H8CSCARPAYF	3713	0.08	0.43	0.0	3.0
H9CSCARPAYF	3560	0.07	0.40	0.0	3.0
H10CSCARPAYF	4328	0.08	0.41	0.0	3.0
H11CSCARPAYF	4030	0.09	0.45	0.0	3.0
H12CSCARPAYF	3702	0.08	0.42	0.0	3.0
H13CSCARPAYF	3469	0.09	0.45	0.0	3.0
H14CSCARPAYF	3281	0.09	0.46	0.0	3.0
H15CSCARPAYF	2962	0.10	0.49	0.0	3.0
H5CSGASF	3809	0.13	0.54	0.0	3.0
H6CSGASF	3233	0.15	0.54	0.0	3.0
H7CSGASF	3844	0.13	0.51	0.0	3.0
H8CSGASF	3711	0.10	0.44	0.0	3.0
H9CSGASF	3561	0.11	0.47	0.0	3.0
H10CSGASF	4330	0.09	0.45	0.0	3.0
H11CSGASF	4031	0.10	0.45	0.0	3.0
H12CSGASF	3702	0.09	0.42	0.0	3.0
H13CSGASF	3471	0.09	0.43	0.0	3.0
H14CSGASF	3282	0.10	0.46	0.0	3.0
H15CSGASF	2964	0.11	0.49	0.0	3.0
H5CSHRINSF	3795	0.22	0.60	0.0	2.0
H6CSHRINSF	3224	0.16	0.54	0.0	2.0
H7CSHRINSF	3832	0.17	0.55	0.0	2.0
H8CSHRINSF	3705	0.14	0.49	0.0	2.0
H9CSHRINSF	3553	0.13	0.48	0.0	2.0
H10CSHRINSF	4321	0.14	0.51	0.0	2.0
H11CSHRINSF	4019	0.16	0.53	0.0	2.0
H12CSHRINSF	3691	0.14	0.50	0.0	2.0
H13CSHRINSF	3456	0.16	0.54	0.0	2.0
H14CSHRINSF	3266	0.16	0.53	0.0	2.0
H15CSHRINSF	2937	0.16	0.53	0.0	2.0
H5CSRENTF	3864	0.40	1.01	0.0	3.0
H6CSRENTF	3253	0.31	0.90	0.0	3.0

H7CSRENTF	3878	0.25	0.82	0.0	3.0
H8CSRENTF	3736	0.21	0.76	0.0	3.0
H9CSRENTF	3587	0.19	0.73	0.0	3.0
H10CSRENTF	4369	0.22	0.77	0.0	3.0
H11CSRENTF	4065	0.24	0.80	0.0	3.0
H12CSRENTF	3734	0.21	0.75	0.0	3.0
H13CSRENTF	3502	0.22	0.76	0.0	3.0
H14CSRENTF	3319	0.23	0.77	0.0	3.0
H15CSRENTF	2977	0.22	0.75	0.0	3.0
H5CSPTAXF	3860	0.36	0.94	0.0	3.0
H6CSPTAXF	3247	0.25	0.81	0.0	3.0
H7CSPTAXF	3872	0.25	0.81	0.0	3.0
H8CSPTAXF	3730	0.21	0.75	0.0	3.0
H9CSPTAXF	3581	0.20	0.73	0.0	3.0
H10CSPTAXF	4358	0.23	0.77	0.0	3.0
H11CSPTAXF	4057	0.25	0.80	0.0	3.0
H12CSPTAXF	3726	0.22	0.76	0.0	3.0
H13CSPTAXF	3497	0.25	0.80	0.0	3.0
H14CSPTAXF	3312	0.25	0.81	0.0	3.0
H15CSPTAXF	2966	0.23	0.77	0.0	3.0
H5CSMORTINTF	3859	0.23	0.79	0.0	3.0
H6CSMORTINTF	3253	0.23	0.79	0.0	3.0
H7CSMORTINTF	3875	0.19	0.72	0.0	3.0
H8CSMORTINTF	3734	0.18	0.70	0.0	3.0
H9CSMORTINTF	3583	0.16	0.66	0.0	3.0
H10CSMORTINTF	4366	0.18	0.70	0.0	3.0
H11CSMORTINTF	4064	0.21	0.76	0.0	3.0
H12CSMORTINTF	3733	0.18	0.70	0.0	3.0
H13CSMORTINTF	3504	0.20	0.74	0.0	3.0
H14CSMORTINTF	3320	0.20	0.74	0.0	3.0
H15CSMORTINTF	2978	0.19	0.72	0.0	3.0
H5CSHREPMNTF	3790	0.09	0.41	0.0	2.0
H6CSHREPSUPF	3225	0.11	0.45	0.0	2.0
H7CSHREPSUPF	3834	0.10	0.44	0.0	2.0
H8CSHREPSUPF	3704	0.09	0.41	0.0	2.0
H9CSHREPSUPF	3550	0.08	0.40	0.0	2.0
H10CSHREPSUPF	4319	0.08	0.39	0.0	2.0
H11CSHREPSUPF	4018	0.09	0.41	0.0	2.0
H12CSHREPSUPF	3689	0.08	0.39	0.0	2.0
H13CSHREPSUPF	3457	0.08	0.40	0.0	2.0
H14CSHREPSUPF	3264	0.09	0.41	0.0	2.0
H15CSHREPSUPF	2938	0.09	0.41	0.0	2.0
H6CSHREPSVCF	3225	0.09	0.42	0.0	2.0
H7CSHREPSVCF	3832	0.11	0.46	0.0	2.0
H8CSHREPSVCF	3704	0.09	0.41	0.0	2.0
H9CSHREPSVCF	3550	0.09	0.41	0.0	2.0
H10CSHREPSVCF	4319	0.08	0.39	0.0	2.0
H11CSHREPSVCF	4018	0.09	0.42	0.0	2.0
H12CSHREPSVCF	3690	0.08	0.39	0.0	2.0
H13CSHREPSVCF	3458	0.08	0.40	0.0	2.0
H14CSHREPSVCF	3264	0.09	0.41	0.0	2.0
H15CSHREPSVCF	2937	0.08	0.40	0.0	2.0
H5CSMORTF	3859	0.23	0.79	0.0	3.0

H6CSMORTF	3253	0.23	0.79	0.0	3.0
H7CSMORTF	3875	0.19	0.72	0.0	3.0
H8CSMORTF	3734	0.18	0.70	0.0	3.0
H9CSMORTF	3583	0.16	0.66	0.0	3.0
H10CSMORTF	4366	0.18	0.70	0.0	3.0
H11CSMORTF	4064	0.21	0.76	0.0	3.0
H12CSMORTF	3733	0.18	0.70	0.0	3.0
H13CSMORTF	3504	0.20	0.74	0.0	3.0
H14CSMORTF	3320	0.20	0.74	0.0	3.0
H15CSMORTF	2978	0.19	0.72	0.0	3.0

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 or cleanin					3758	3167	3763	3608	3524	4279
2. Imputed: Regression					19	19	16	21	18	22
4. Imputed: No purchase					70	62	85	98	35	52

Value	w11	w12	w13	w14	w15
.T=Resp <10 cat	20	8	19	22	16
0. No imputation or cleanin	3978	3680	3437	3257	2916
2. Imputed: Regression	20	12	17	16	15
4. Imputed: No purchase	49	37	33	28	39

HwCSWATERF: CAMSFlag Water

Value	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat					71	30	46	34	36	50
0. No imputation or cleanin					3420	2853	3534	3414	3297	4029
1. Cleaning: value or perio					37	114	96	111	107	115
2. Imputed: Regression					338	257	203	179	147	176

Value	w11	w12	w13	w14	w15
.T=Resp <10 cat	50	48	51	58	47
0. No imputation or cleanin	3708	3442	3222	3031	2746
1. Cleaning: value or perio	110	97	89	81	43
2. Imputed: Regression	199	150	144	153	150

HwCSGASF: CAMSFlag Gasoline

Value	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat					57	21	35	27	26	40
0. No imputation or cleanin					3565	2978	3588	3515	3362	4127
1. Cleaning: value or perio					36	76	65	60	49	50
2. Imputed: Regression					148	132	146	105	115	106
3. Imputed: HRS value					60	47	45	31	35	47

Value	w11	w12	w13	w14	w15
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.T=Resp <10 cat		36	35	35	41	22
0. No imputation or cleanin		3824	3536	3315	3112	2807
1. Cleaning: value or perio		52	51	44	51	38
2. Imputed: Regression		119	81	75	76	72
3. Imputed: HRS value		36	34	37	43	47

HwCSHRINSF: CAMSFlag Home/Rent Insurance

Value		w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T=Resp <10 cat						71	30	47	33	34	49
0. No imputation or cleanin						3353	2953	3493	3434	3308	3993
1. Cleaning: value or perio						68	24	27	39	29	34
2. Imputed: Regression						374	247	312	232	216	294

Value		w11	w12	w13	w14	w15
.T=Resp <10 cat		48	46	50	57	49
0. No imputation or cleanin		3685	3415	3162	2988	2697
1. Cleaning: value or perio		37	39	32	40	18
2. Imputed: Regression		297	237	262	238	222

General Comments

All category-level variables have a flag indicating if the spending value was cleaned, regression imputation, imputed using an HRS core value, or zero-imputed (in the case of durables) All flags are listed in the Descriptives Statistics section above, but in the interest of space, only a selection of flags are listed in the Categorical Variable Codes section.

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 cleaning or imputation." If a spending variable has its value or periodicity cleaned from a data alert or from comparison to an adjacent wave, its flag is set to "1. Cleaning: value or periodicity." If a spending variable is imputed with its predicted value from regression, its flag is set to "2. Imputed: Regression." If a spending variable is imputed with data from an adjacent HRS core wave, its flag is set to "3. Imputed: HRS value."

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 "4. Imputed: No purchase."

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 is 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

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"). These values are then regression imputed after total spending is calculated. They are listed below:

HHIDPN=206680020 has regression-imputed H5CSGAS and H5CSCARMNT

HHIDPN=45699020 has regression-imputed H10CSTELECOM

HHIDPN=522045010 has regression-imputed H10CSMEDSUP

HHIDPN=84947010 has regression-imputed H11CSWATER

HHIDPN=529652010 has regression-imputed H11CSTELECOM

HHIDPN=148703010 has regression-imputed H13CSTELECOM

HHIDPN=911392010 has regression-imputed H13CSTELECOM

HHIDPN=78529010 has regression-imputed H13CSPRSCARE

HHIDPN=212259020 has regression-imputed H14CSTELECOM

HHIDPN=914429010 has regression-imputed H14CSDRUGS