## RAND HRS CAMS Data File 2017 (V1) Documentation

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# What's New in Version 2017 (V1) of the RAND HRS CAMS Data File?

Version 2017 (V1) incorporates the most recent versions of the CAMS survey files and the RAND HRS Longitudinal File 2016 (V1). The current versions of the CAMS surveys used in Version 2017 (V1) are:

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

We have made the following changes to the file:

- CAMS 2015 Weights: We have added final household (H12CWGTHH) and Respondent-level (H12CWGTR) weights for CAMS 2015 to this file.
- CAMS 2017 Weights: Please note that CAMS 2017 weights are not available as of this publication. Please check (https://hrs.isr.umich.edu/news) for updates.
- CAMS 2015 Consumption Variables: We have added the 2015 CAMS consumption variables (H12CTOTC, H12CDURC, H12CTRANSC, H12CHOUSC and H12CHMEQF) to this file.
- CAMS 2017 Consumption Variables: CAMS 2017 consumption variables (H13CTOTC, H13CDURC, H13CTRANSC, H13CHOUSC and H13CHMEQF) will be available in the next release of the RAND HRS CAMS Data File. These variables are derived using HRS 2018 core data for house value and transportation value, which are not yet available.

## 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 (<a href="https://hrsnnline.isr.umich.edu">hrsnnline.isr.umich.edu</a>).

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. Eight more CAMS surveys were fielded in September 2003, October 2005, September 2007, September 2009, September 2011, fall 2013, fall 2015, and fall 2017, 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.<sup>1</sup> 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.<sup>2</sup>

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 2017 (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), and 2017 (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 (<a href="https://hrs.isr.umich.edu/data-products/restricted-data">https://hrs.isr.umich.edu/data-products/restricted-data</a>) and in the HRS Restricted Data links box, follow the Contact Information link to send an e-mal to HRS Restricted Data Applications Processing (<a href="https://hrs.daapplication@umich.edu">hrsrdaapplication@umich.edu</a>). 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 (<a href="https://hrs.isr.umich.edu/data-products/access-to-public-data">https://hrs.isr.umich.edu/data-products/access-to-public-data</a>).

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

#### 1.2 Data File Structure

The RAND HRS CAMS Data File is a single file which includes nine 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, and fall 2017, CAMS waves 2 to 9 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.

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

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

Timing of CAMS spending measure and alignment with HRS core waves

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

### 1.3 The SAS Format Library

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

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

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

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

<sup>&</sup>lt;sup>3</sup>Starting with CAMS 2005 and onward, spouses of CAMS Respondents in a couple household were sent a separate time-use questionnaire (Part A in the full questionnaire).

### 1.3.1. Using (or Not Using) the SAS formats

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

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

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

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

```
FORMAT _ALL_ ;
```

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

### 1.4 Merging to the HRS

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

The RAND HRS CAMS Data File is an individual-level file of all CAMS Respondents who have completed at least one wave of the CAMS Part B survey section. Three Respondents to CAMS Part B did not respond to any HRS core survey (HHIDPN=501992020, 501980010, and 500416010). 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.

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 2017 (V1) to the RAND HRS Longitudinal File 2016 (V1), one can use the following SAS code:

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

data mylib.newfile;
    merge randhrs.randhrs1992_2016v1 (keep=HHIDPN [list of other variables])
        randcams.randcams_2001_2017v1;
    by HHIDPN;
```

### 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 for all spending and consumption measures.

#### **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-CAMS17
Durables			
Refrigerator	B2	B2	B2
Washer/Dryer	В3	В3	В3
Dishwasher	В4	В4	B4
Television	B5	В5	B5
Computer	В6	В6	В6
Nondurables			
Electricity	B11	B15	B20
Water	B12	B16	B21
Heat	B13	B17	B22
Phone/Cable/Internet	B14	B18	B23
Health Insurance	B17	B11	B11
House/Yard Supplies	B18	split	split
Housekeeping Supplies	combined	B20	B25
Yard Supplies	combined	B22	B27
Housekeeping Services	n/a	B21	B26
Gardening/Yard Services	n/a	B23	B28
Food/Drink Grocery	B20	B36	B37
Dining Out	B21	B37	B38
Clothing	B22	B26	B29
Drugs	B25	B28	B31
Health Services	B26	B29	B32
Medical Supplies	B27	B30	B33
Vacations	B28	B12	B12
Tickets	B29	B31	B34
Hobbies/Sports Equipment	B30	split	split
Hobbies	combined	B33	B36
Sports Equipment	combined	B32	B35
Contributions	B31	B34	B16
Gifts	B32	B35	B17
Personal Care	n/a	B27	B30
Household Furnishings	n/a	n/a	B15
Transportation			
Purchase/Lease auto	B1	B1	B1
Auto Finance Charges	B15	n/a	n/a
Car Payments	n/a	B19	B24
Auto Insurance	B16	B9	B9
Gasoline	B23	B38	B39
Vehicle Services	B24	B10	B10
Housing			
Mortgage	В7	B13	B18
Home/Rent Insurance	В8	В7	В7
Property Tax	В9	В8	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.<sup>4</sup> 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 "1.7 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.

<sup>&</sup>lt;sup>4</sup>This is the amount that Respondents are most likely to know as a result of making these payments every month.

#### Durables spending

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

### Durables consumption

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

We follow somewhat different methods for televisions and personal computers than for "white metal" items (refrigerators, washer/dryers and dishwashers). For televisions and computers we make the following assumptions and calculations. If p=probability of a purchase in a year, then T = 1/p expected number of years of service use. Assuming that the flow of service is constant over the T years, the service flow per year is C/T where  $C = \cos t$  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.<sup>5</sup>

#### 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<sup>6</sup>

Mortgage interest and charges

Mortgage interest and charges + Mortgage principal paid on owned property

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

### Housing Consumption

We estimate the flow of consumption services from owner-occupied housing by estimating a rental equivalent: the amount the housing unit would rent for in a competitive market in equilibrium. In particular we make the following two assumptions and calculations: (1) The interest cost is the value of housing multiplied by the prevailing interest rate. We use the observed house value from the HRS core and use a moving average of the last three years' 30 year mortgage interest rate.<sup>7</sup>: (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 "2.17 Total Housing Consumption." Please note that consumption variables for 2017 are not calculated for RAND HRS CAMS Data File 2017 (V1) because the imputation of these variables relies on HRS 2018 core data for house value and transportation value, which are not yet available. The next version of RAND HRS CAMS Data File will be published once the HRS 2018 early release data has been released, and will incorporate the CAMS 2017 consumption variables.

### 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 to which the variable pertains: "1", "2", "3", "4", "5", "6", "7", "8", "9", "10", "11", "12", "13", or "A". For RAND HRS CAMS data, the second character can be only "5" through "13" as there are only nine 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. 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). The suffix for these variables is either "S" for spending or "C" for consumption. Please see section "1.7 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.

<sup>&</sup>lt;sup>5</sup>Source for 48-month new car loan interest rates: http://www.federalreserve.gov/releases/g19/HIST/cc\_hist\_tc\_levels.html

<sup>&</sup>lt;sup>6</sup>Source for mortgage interest and principal: http://www.bls.gov/cex/standard/yyyy/age.txt, where yyyy is the survey year

<sup>&</sup>lt;sup>7</sup>Source for 30-year mortgage interest rate: http://www.freddiemac. com/pmms/docs/historicalweeklydata.xls

### 1.9 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 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 Imputation and Cleaning of Spending Variables

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. 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. For nondurable categories the Respondent is asked how much was spent in each category and is sometimes given the option, depending on the survey wave and category, of reporting the amount spent weekly, monthly, or yearly. 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. These periodicities change from wave to wave. As a result, all amounts are annualized prior to further cleaning.

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 Don't Know and Refused are recoded from 99998, 99999, etc. to missing.

After cleaning, each separate category is winsorized to make totals more robust to outliers. The bottom five positive values are set to the next highest (bottom sixth) value. Likewise, the top five values for a category are set to the next lowest (top sixth) value.

After winsorizing, we use mean imputations to handle the missing values in specific categories. Because item nonresponse is so low, total imputed spending is a small fraction of total estimated spending. The mean of all of the values per category is calculated (including winsorized and zero values) and this mean is used to impute any missing values.

Each aggregated spending variable has a flag indicating for each Respondent if any of its components were mean imputed, winsorized, or both.

### 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 done 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.

### 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 "1.7 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.

Consumption variables for 2017 are not calculated for the RAND HRS CAMS Data File 2017 (V1) because the imputation of these variables relies on HRS 2018 core data for house value and transportation value, which are not yet available. The next version of RAND HRS CAMS Data File will be published once the HRS 2018 early release data has been released, and will incorporate the CAMS 2017 consumption variables.

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 7624 284635054.1 264585481.1 10001010.0 923495010.0

### **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.

Three Respondents to CAMS Part B did not respond to any HRS core survey (HHIDPN=501992020, 501980010, and 500416010). 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.

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 2016 (V1), you could use the following SAS code:

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

data mylib.newfile;
    merge randhrs.randhrs1992_2016v1 (keep=HHIDPN [list of other variables])
        randcams.randcams_2001_2017v1;
    by HHIDPN;
```

## 2.2 Response Indicators

Wave	Variable	Label	Type
1	INCAMS01	<pre>INCAMS01: =1 if responded in 2001</pre>	Categ
3	INCAMS03	INCAMS03: =1 if responded in 2003	Categ
5	INCAMS05	INCAMS05: =1 if responded in 2005	Categ
7	INCAMS07	INCAMS07: =1 if responded in 2007	Categ
9	INCAMS09	INCAMS09: =1 if responded in 2009	Categ
11	INCAMS11	INCAMS11: =1 if responded in 2011	Categ
13	INCAMS13	INCAMS13: =1 if responded in 2013	Categ
15	INCAMS15	INCAMS15: =1 if responded in 2015	Categ
17	INCAMS17	INCAMS17: =1 if responded in 2017	Categ
5	INCAMSC5	INCAMSC5:In CAMS wave 5, as lined up with the HRS	Cateq
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

## **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
INCAMS01	7624	0.51	0.50	0.0	1.0
INCAMS03	7624	0.43	0.49	0.0	1.0
INCAMS05	7624	0.51	0.50	0.0	1.0
INCAMS07	7624	0.49	0.50	0.0	1.0
INCAMS09	7624	0.47	0.50	0.0	1.0
INCAMS11	7624	0.57	0.49	0.0	1.0
INCAMS13	7624	0.53	0.50	0.0	1.0
INCAMS15	7624	0.49	0.50	0.0	1.0
INCAMS17	7624	0.46	0.50	0.0	1.0
INCAMSC5	7624	0.51	0.50	0.0	1.0
INCAMSC6	7624	0.43	0.49	0.0	1.0
INCAMSC7	7624	0.51	0.50	0.0	1.0
INCAMSC8	7624	0.49	0.50	0.0	1.0
INCAMSC9	7624	0.47	0.50	0.0	1.0
INCAMSC10	7624	0.57	0.49	0.0	1.0
INCAMSC11	7624	0.53	0.50	0.0	1.0
INCAMSC12	7624	0.49	0.50	0.0	1.0
INCAMSC13	7624	0.46	0.50	0.0	1.0

## **Categorical Variable Codes**

Value	I	INCAMS01	INCAMS03	INCAMS05	INCAMS07	INCAMS09	INCAMS11	INCAMS13
0.nonresp	 	3758	4370	3745	3886	4037	3254	3557
1.resp	I	3866	3254	3879	3738	3587	4370	4067
Value	I	INCAMS15	INCAMS17					
0.nonresp		3887	4118					
1.resp	I	3737	3506					
 Value		INCAMSC5	INCAMSC6	INCAMSC7	TNGAMGGO	INCAMSC9	INCAMSC10	INCAMSC11
value	 	INCAMSCS	INCAMSCO	INCAMSC/	INCAMSC8	INCAMSC9	INCAMSCIU	INCAMSCII
0.nonresp	1	3758	4370	3745	3886	4037	3254	3557
1.resp	1	3866	3254	3879	3738	3587	4370	4067
Value		INCAMSC12	INCAMSC13					
0.nonresp	1	3887	4118					
1.resp		3737	3506					

### **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.

## 2.3 Sample Indicators

Wave	Variable	Label	Type
5	H5CNCAT	H5CNCAT: W5 Number of non-missing spending categories	Cont
6	H6CNCAT	H6CNCAT: W6 Number of non-missing spending categories	Cont
7	H7CNCAT	H7CNCAT: W7 Number of non-missing spending categories	Cont
8	H8CNCAT	H8CNCAT: W8 Number of non-missing spending categories	Cont
9	H9CNCAT	H9CNCAT: W9 Number of non-missing spending categories	Cont
10	H10CNCAT	H10CNCAT: W10 Number of non-missing spending categories	Cont
11	H11CNCAT	H11CNCAT: W11 Number of non-missing spending categories	Cont
12	H12CNCAT	H12CNCAT: W12 Number of non-missing spending categories	Cont
13	H13CNCAT	H13CNCAT: W13 Number of non-missing spending categories	Cont
5	H5C10REP	H5C10REP: W5 Responded to 10+ spending section questions	Categ
6	H6C10REP	H6C10REP: W6 Responded to 10+ spending section questions	Categ
7	H7C10REP	H7C10REP: W7 Responded to 10+ spending section questions	Categ
8	H8C10REP	H8C10REP: W8 Responded to 10+ spending section questions	Categ
9	H9C10REP	H9C10REP: W9 Responded to 10+ spending section questions	Categ
10	H10C10REP	H10C10REP: W10 Responded to 10+ spending section questions	Categ
11	H11C10REP	H11C10REP: W11 Responded to 10+ spending section questions	Categ
12	H12C10REP	H12C10REP: W12 Responded to 10+ spending section questions	Categ
13	H13C10REP	H13C10REP: W13 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
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

### **Categorical Variable Codes**

	HwC1	OREP: Re	sponded	to 10+ sp	pending	section	question	ıs			
Value	ı	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
0. Resp to <10 spending Qs 1. Resp to 10+ spending Qs						77 3789	30 3224	47 3832	34 3704	37 3550	51 4319
Value	ı	w11	w12	w13							
0. Resp to <10 spending Qs 1. Resp to 10+ spending Qs		50 4017	48 3689	52 3454							

### **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 for all spending and consumption measures.

## 2.4 HRS Core Status

Wave	Variable	Label	Type
5 6 7 8 9	H5CHRSCOREF H6CHRSCOREF H7CHRSCOREF H8CHRSCOREF H9CHRSCOREF H10CHRSCOREF	H5CHRSCOREF:W5 CAMSFlag: HRS Core Status H6CHRSCOREF:W6 CAMSFlag: HRS Core Status H7CHRSCOREF:W7 CAMSFlag: HRS Core Status H8CHRSCOREF:W8 CAMSFlag: HRS Core Status H9CHRSCOREF:W9 CAMSFlag: HRS Core Status H10CHRSCOREF:W10 CAMSFlag: HRS Core Status	Categ Categ Categ Categ Categ Categ
11 12 13	H11CHRSCOREF H12CHRSCOREF H13CHRSCOREF	H11CHRSCOREF:W11 CAMSFlag: HRS Core Status H12CHRSCOREF:W12 CAMSFlag: HRS Core Status H13CHRSCOREF:W13 CAMSFlag: HRS Core Status	Categ Categ 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	0.99	0.12	0.0	1.0

## **Categorical Variable Codes**

		HwCHF	SCOREF:	CAMSFlag	: HRS Co	re Statı	ıs				
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	i					165	108	154	148	190	166
2. In foll HRS wv only	i							48	45	38	34
3. In prev/foll HRS wv	i					3701	3146	3646	3502	3320	4138
Value	1	w11	w12	w13							
0. No adjacent HRS wv		23	29	 51							
1. In prev HRS wv only	i	187	240	3455							
2. In foll HRS wv only	Ì	32	28								
3. In prev/foll HRS wv		3825	3440								

### **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 section "1.12 Imputation of Consumption Variables" for more information.

## RAND HRS Longitudinal File 2016 (V1) Variables Used

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

### 2.5 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
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

## **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	3877	13472.51	8010.16	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
H5CWGTR	3866	16654.57	10611.26	0.0	70465.0
H6CWGTR	3254	19068.42	12245.26	0.0	79927.0
H7CWGTR	3878	13945.80	8966.36	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

### **General Comments**

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

### **How Constructed**

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

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

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

Two Respondents to CAMS Part B did not respond to any HRS core survey (HHIDPN=501992020 and 501980010). For these observations, we use the spouse's HHIDPN so that these records can be merged to the HRS files. Because their spouses did not respond to the full CAMS survey, the respondent-level weight assigned to them is zero. Therefore, for these cases, respondent-level weights are imputed with the household-level weight.

#### **CAMS Variables Used**

CAMS 2001:	
CAMS01WGTHH	HOUSEHOLD WEIGHT FOR THE 2001 CAMS SUBSAMPLE
CAMS01WGTR	RESPONDENT WEIGHT FOR THE 2001 CAMS SUBSAMPLE
CAMS 2003:	
CAMS03WGTHH	HOUSEHOLD WEIGHT FOR THE 2003 CAMS SUBSAMPLE
CAMS03WGTR	RESPONDENT WEIGHT FOR THE 2003 CAMS SUBSAMPLE
CAMS 2005:	
CAMS05WGTHH	HOUSEHOLD WEIGHT FOR THE 2005 CAMS SUBSAMPLE
CAMS05WGTR	RESPONDENT WEIGHT FOR THE 2005 CAMS SUBSAMPLE
CAMS 2007:	
CAMS07WGTHH	HOUSEHOLD WEIGHT FOR THE 2007 CAMS SUBSAMPLE
CAMS07WGTR	RESPONDENT WEIGHT FOR THE 2007 CAMS SUBSAMPLE
CAMS 2009:	
CAMS09WGTHH	HOUSEHOLD WEIGHT FOR THE 2009 CAMS SUBSAMPLE
CAMS09WGTR	RESPONDENT WEIGHT FOR THE 2009 CAMS SUBSAMPLE
CAMS 2011:	
CAMS11WGTHH	HOUSEHOLD WEIGHT FOR THE 2011 CAMS SUBSAMPLE
CAMS11WGTR	RESPONDENT WEIGHT FOR THE 2011 CAMS SUBSAMPLE
CAMS 2013:	
CAMS13WGTHH	HOUSEHOLD WEIGHT FOR THE 2013 CAMS SUBSAMPLE

CAMS13WGTR
CAMS 2015:

RESPONDENT WEIGHT FOR THE 2013 CAMS SUBSAMPLE

CAMS15WGTHH HOUSEHOLD WEIGHT FOR THE 2015 CAMS SUBSAMPLE CAMS15WGTR RESPONDENT WEIGHT FOR THE 2015 CAMS SUBSAMPLE

## **2.6 CAMS Current Marital Status**

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

## **Categorical Variable Codes**

HwCMSTAT: CAMS R Current Marital Status											
Value	ı	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
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	1	w11	w12	w13							
1. married		1713	1427	1371							
2. living with partner		174	140	136							
3. separated		105	92	103							
4. divorced		641	590	590							
5. widowed		971	856	816							
6. never married		264	248	272							
7. other	i	33	32	51							

## **How Constructed**

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

## **CAMS Variables Used**

CAMS 2001:			
C1_01	C1.	MARITAL	STATUS
CAMS 2003:			
C1_03	C1.	MARITAL	STATUS
CAMS 2005:			
C1_05	C1.	MARITAL	STATUS
CAMS 2007:			
C2_07	C2.	MARITAL	STATUS
CAMS 2009:			
C2_09	C2.	MARITAL	STATUS
CAMS 2011:			
C2_11	C2.	MARITAL	STATUS
CAMS 2013:			
C2_13	C2.	MARITAL	STATUS
CAMS 2015:			
C2_15	C2.	MARITAL	STATUS
CAMS 2017:			
C2_17	C2.	MARITAL	STATUS

## 2.7 Total Household Spending

Wave	Variable	Label	Type
5	H5CTOTS	H5CTOTS:W5 CAMS: Total HHold Spending	Cont
6	H6CTOTS	H6CTOTS:W6 CAMS: Total HHold Spending	Cont
7	H7CTOTS	H7CTOTS:W7 CAMS: Total HHold Spending	Cont
8	H8CTOTS	H8CTOTS: W8 CAMS: Total HHold Spending	Cont
9	H9CTOTS	H9CTOTS: W9 CAMS: Total HHold Spending	Cont
10	H10CTOTS	H10CTOTS:W10 CAMS: Total HHold Spending	Cont
11	H11CTOTS	H11CTOTS:W11 CAMS: Total HHold Spending	Cont
12	H12CTOTS	H12CTOTS:W12 CAMS: Total HHold Spending	Cont
13	H13CTOTS	H13CTOTS:W13 CAMS: Total HHold Spending	Cont
5	H5CTOTSF	H5CTOTSF:W5 CAMSFlag: Total HHold Spending	Categ
6	H6CTOTSF	H6CTOTSF:W6 CAMSFlag: Total HHold Spending	Categ
7	H7CTOTSF	H7CTOTSF:W7 CAMSFlag: Total HHold Spending	Categ
8	H8CTOTSF	H8CTOTSF:W8 CAMSFlag: Total HHold Spending	Categ
9	H9CTOTSF	H9CTOTSF:W9 CAMSFlag: Total HHold Spending	Categ
10	H10CTOTSF	H10CTOTSF:W10 CAMSFlag: Total HHold Spending	Categ
11	H11CTOTSF	H11CTOTSF:W11 CAMSFlag: Total HHold Spending	Categ
12	H12CTOTSF	H12CTOTSF:W12 CAMSFlag: Total HHold Spending	Categ
13	H13CTOTSF	H13CTOTSF:W13 CAMSFlag: Total HHold Spending	Categ

## **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CTOTS	3789	37637.62	32657.79	0.0	414585.0
H6CTOTS	3224	41007.02	33410.62	0.0	362307.0
H7CTOTS	3832	39954.12	32522.86	0.0	343736.0
H8CTOTS	3704	40921.52	32310.92	0.0	429586.0
H9CTOTS	3550	38587.27	28111.82	0.0	219766.0
H10CTOTS	4319	40277.93	31162.99	0.0	317372.0
H11CTOTS	4017	41094.03	32849.14	0.0	369772.0
H12CTOTS	3689	42853.07	35977.00	0.0	378310.0
H13CTOTS	3454	44946.16	37326.34	0.0	400988.0
H5CTOTSF	3789	1.11	1.29	0.0	4.0
H6CTOTSF	3224	1.16	1.32	0.0	4.0
H7CTOTSF	3832	1.17	1.35	0.0	4.0
H8CTOTSF	3704	0.97	1.23	0.0	4.0
H9CTOTSF	3550	0.97	1.21	0.0	4.0
H10CTOTSF	4319	0.97	1.20	0.0	4.0
H11CTOTSF	4017	0.96	1.23	0.0	4.0
H12CTOTSF	3689	0.91	1.20	0.0	4.0
H13CTOTSF	3454	0.89	1.19	0.0	4.0

### **Categorical Variable Codes**

HwCTOTSF: CAMSFlag: Total HHold Spending											
Value	1	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T Resp <10 cat						77	30	47	34	37	51
0. no winsor or imp	1					1978	1620	1957	2096	1978	2422
1. winsor only	1					108	148	158	177	161	157
2. mean/median imp only						1324	1056	1202	1113	1154	1436
3. zero imp only						79	113	149	89	50	67
4. imp & winsor	I					300	287	366	229	207	237
Value		w11	w12	w13							
.T Resp <10 cat		50	48	52							
0. no winsor or imp	1	2292	2167	2046							
1. winsor only		151	158	166							
2. mean/median imp only		1258	1107	1007							
3. zero imp only		55	55	41							
4. imp & winsor		261	202	194							

### **General Comments**

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in the section titled "1.10 Imputation and Cleaning 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 "1.5 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 13 which asks about 2017 spending.

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

#### **How Constructed**

HwCTOTS is the sum of all of the spending in the household, including durables, nondurables, transportation and housing spending. The spending categories vary by wave. Please see Table 1 for details of which categories are available in each wave. Mortgage payments include only interest. Please refer to "1.6 Spending versus Consumption" for details.

HwCTOTSF is a flag that indicates whether any components are imputed or winsorized. Please see "1.10 Imputation and Cleaning 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 (see "1.5 Differences Across Waves." One method for adjusting 2001 and 2003 spending totals is detailed in "1.9 Cross-Wave Category Adjustments."

### **CAMS Variables Used**

```
CAMS 2001:
                   B1. PURCHASE/LEASE AUTO
   B1_01
                   B1A_3. AUTO YEAR - 1
   B1A 3 01
                   B1A_4. AUTO PRICE - 1
   B1A_4_01
                   B1B_3. AUTO YEAR - 2
   B1B_3_01
                   B1B_4. AUTO PRICE - 2
   B1B_4_01
   B1C_3_01
                  B1C_3. AUTO YEAR - 3
   B1C_4_01
                  B1C_4. AUTO PRICE - 3
   B2_01
                  B2. BUY REFRIGERATOR
   B2A_01
                  B2A. REFRIGERATOR PRICE
   вз 01
                  B3. BUY WASHER/DRYER
                  B3A. WASHER/DRYER PRICE
   B3A_01
   B4_01
                  B4. BUY DISWASHER
   B4A_01
                  B4A. DISHWASHER PRICE
   B5_01
                   B5. BUY TELEVISION
   B5A_01
                   B5A. TELEVISION PRICE
                   B6. BUY COMPUTER
   B6_01
   B6A_01
                  B6A. COMPUTER PRICE
   B7_01
                   B7. MORTGAGE
   B7A_01
                  B7A. MORTAGAGE - PER
   B8_01
                  B8. HOME/RENT INS.
   B8A_01
                  B8A. HOME/RENT INS - PER
   B9_01
                  B9. PROPERTY TAX
   B9A_01
                  B9A. PROPERTY TAX - PER
   B10 01
                  B10. RENT
                  B10A. RENT - PER
   B10A_01
                  B11. ELECTRICITY
   B11_01
                   B11A. ELECTRICITY - PER
   B11A_01
                   B12. WATER
   B12_01
   B12A_01
                   B12A. WATER - PER
   B13_01
                   B13. HEAT
                   B13A. HEAT - PER
   B13A_01
   B14 01
                   B14. PHONE/CABLE/INTERNET
                   B14A. PHONE/CABLE - PER
   B14A_01
                   B15. AUTO FINANCE CHRG
   B15_01
                  B15A. AUTO FINANCE - PER
   B15A_01
   B16_01
                  B16. AUTO INSURANCE
                  B16A. AUTO INSUR - PER
   B16A_01
   B17_01
                  B17. HEALTH INSURANCE
   B17A 01
                  B17A. HEALTH INSUR - PER
   B18_01
                  B18. HOUSE/YARD SUPPLIES
   B18A_01
                  B18A. HOUSE/YARD - PER
   B19_01
                  B19. HOME MAINTAIN
   B19A_01
                   B19A. HOME MAINTAIN - PER
   B20A_01
                   B20. FOOD/DRINK GROC - PER
   B20_01
                   B20. FOOD/DRINK GROCERY
                   B21. DINING OUT
   B21_01
   B21A_01
                   B21A. DINING OUT - PER
                   B22. CLOTHING
   B22_01
                   B22A. CLOTHING - PER
   B22A_01
                  B23. GASOLINE
   B23_01
   B23A_01
                  B23A. GASOLINE - PER
   B24 01
                  B24. VEHICLE SERVICE
   B24A_01
                  B24A. VEHICLE SERVICE - PER
                  B25. DRUGS
   B25 01
   B25A 01
                  B25A. DRUGS - PER
                  B26. HEALTH SERVICES
   B26 01
                  B26A. HEALTH SERVICES - PER
   B26A_01
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B27_01
                    B27. MEDICAL SUPPLIES
                    B27A. MED SUPPLIES - PER
   B27A_01
   B28_01
                    B28. VACATIONS
   B28A_01
                    B28A. VACATIONS - PER
   B29_01
                    B29. TICKETS
                    B29A. TICKETS - PER
   B29A_01
                    B30. HOBBIES
   B30_01
   B30A_01
                    B30A. HOBBIES - PER
                    B31. CONTRIBUTIONS
   B31_01
   B31A_01
                   B31A. CONTRIBUTIONS - PER
    B32_01
                    B32. GIFTS
                   B32A. GIFTS - PER
   B32A_01
CAMS 2003:
   B1 03
                   B1. PURCHASE/LEASE AUTO
   B1A3_03
                    B1A3. AUTO YEAR - 1
   B1A4_03
                    B1A4. AUTO PRICE - 1
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_03
   B1B3_03
                    B1B3. AUTO YEAR - 2
                    B1B4. AUTO PRICE - 2
   B1B4_03
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_03
   B1C3_03
                    B1C3. AUTO YEAR - 3
                   B1C4. AUTO PRICE - 3
   B1C4_03
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_03
   B2_03
                   B2. BUY REFRIGERATOR
   B2A_03
                   B2A. REFRIGERATOR PRICE
   B3_03
                   B3. BUY WASHER/DRYER
   B3A_03
                   B3A. WASHER/DRYER PRICE
   В4 03
                   B4. BUY DISWASHER
                   B4A. DISHWASHER PRICE
   B4A_03
                    B5. BUY TELEVISION
   B5_03
                   B5A. TELEVISION PRICE
   B5A_03
   B6_03
                    B6. BUY COMPUTER
   B6A_03
                    B6A. COMPUTER PRICE
   B7_03
                    B7. HOME/RENTERS INSURANCE
   B8_03
                    B8. PROPERTY TAXES
   B9 03
                   B9. VEHICLE INSURANCE
                   B10. VEHICLE MAINTENANCE
   B10_03
   B11_03
                   B11. HEALTH INSURANCE
   B12_03
                   B12. TRIPS AND VACATIONS
   B13_03
                   B13. MORTGAGE
   B13A_03
                   B13A. MORTAGAGE - PER
                   B14. RENT
   B14_03
   B14A 03
                   B14A. RENT - PER
                   B15. ELECTRICITY
   B15_03
                    B15A. ELECTRICITY - PER
   B15A_03
                    B16. WATER
   B16_03
                    B16A. WATER - PER
   B16A_03
   B17_03
                    B17. HEAT
   B17A_03
                    B17A. HEAT - PER
   B18 03
                    B18. PHONE/CABLE/INTERNET
                   B18A. PHONE/CABLE - PER
   B18A_03
                    B19. CAR PAYMENTS INTEREST/PRINCIPAL
   B19 03
                   B19A. CAR PAYMENTS - PER
   B19A_03
   B20_03
                   B20. HOUSEKEEPING SUPPLIES
   B20A_03
                   B20A. HOUSEKEEPING SUPPLIES - PER
   B21 03
                   B21. HOUSEKEEPING SERVICES
                   B21A. HOUSEKEEPING SERVICES - PER
   B21A_03
   B22_03
                   B22.GARDENING/YARD SUPPLIES
   B22A 03
                   B22A. GARDEN/YARD SUPPLIES - PER
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B23_03
                   B23. GARDEN/YARD SERVICES
                   B23A. GARDEN/YARD SERVICES - PER
   B23A_03
   B24_03
                   B24. HOME REPAIRS/MAINTENANCE DIY
   B24A_03
                   B24A. HOME REPAIRS/MAINTENANCE DIY - PER
   B25_03
                   B25. HOME REPAIRS/MAINTENANCE SERVICES
   B25A_03
                   B25A. HOME REPAIRS/MAINTENANCE SERVICE - PER
                   B26. CLOTHING AND APPAREL
   B26_03
   B26A_03
                   B26A. CLOTHING - PER
                   B27. PERSONAL CARE PRODUCTS/SERVICES
   B27_03
   B27A_03
                   B27A. PERSONAL CARE PRODUCTS/SERVICES - PER
   B28_03
                   B28. DRUGS
                   B28A. DRUGS - PER
   B28A_03
   B29_03
                   B29. HEALTH SERVICES
   B29A_03
                  B29A. HEALTH SERVICES - PER
   B30_03
                   B30. MEDICAL SUPPLIES
                   B30A. MED SUPPLIES - PER
   B30A_03
                   B31. TICKETS
   B31_03
   B31A_03
                   B31A. TICKETS - PER
                   B32. SPORTS EQUIPMENT
   B32_03
   B32A_03
                   B32A. SPORTS EQUIPMENT - PER
   B33 03
                   B33. HOBBIES/LEISURE EQUIPMENT
                   B33A. HOBBIES/LEISURE EQUIPMENT - PER
   B33A_03
                   B34. CONTRIBUTIONS
   B34_03
   B34A_03
                   B34A. CONTRIBUTIONS - PER
   B35_03
                   B35. GIFTS
   B35A_03
                   B35A. GIFTS - PER
                   B36. FOOD/DRINK GROC - PER
   B36A_03
   B36 03
                   B36. FOOD/DRINK GROCERY
   B37_03
                   B37. DINING OUT
                   B37A. DINING OUT - PER
   B37A_03
   B38_03
                   B38. GASOLINE
   B38A_03
                   B38A. GASOLINE - PER
CAMS 2005:
   B1_05
                   B1. PURCHASE/LEASE AUTO
   B1A3_05
                   B1A3. AUTO YEAR - 1
   B1A4_05
                   B1A4. AUTO PRICE - 1
   B1A5_05
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_05
                   B1B3. AUTO YEAR - 2
   B1B4_05
                  B1B4. AUTO PRICE - 2
   B1B5_05
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_05
                  B1C3. AUTO YEAR - 3
                  B1C4. AUTO PRICE - 3
   B1C4_05
   B1C5 05
                  B1C5. AUTO/TRUCK NEW OR USED - 3
                  B2. BUY REFRIGERATOR
   B2 05
                  B2A. REFRIGERATOR PRICE
   B2A_05
   B3_05
                   B3. BUY WASHER/DRYER
                   B3A. WASHER/DRYER PRICE
   B3A_05
   B4_05
                   B4. BUY DISWASHER
   B4A_05
                   B4A. DISHWASHER PRICE
   B5 05
                   B5. BUY TELEVISION
   B5A_05
                   B5A. TELEVISION PRICE
                   B6. BUY COMPUTER
   B6 05
   B6A_05
                   B6A. COMPUTER PRICE
   B7_05
                  B7. HOME/RENTERS INSURANCE
   B8_05
                  B8. PROPERTY TAXES
   B9 05
                  B9. VEHICLE INSURANCE
                  B10. VEHICLE MAINTENANCE
   B10_05
   B11_05
                  B11. HEALTH INSURANCE
   B12 05
                  B12. TRIPS AND VACATIONS
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B13_05
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_05
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
    B15_05
                    B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_05
                   B16. CONTRIBUTIONS
   B17_05
                   B17. GIFTS
                   B18. MORTGAGE
   B18_05
   B18A_05
                   B18A. MORTAGAGE - PER
   B19_05
                   B19. RENT
                   B19A. RENT - PER
   B19A_05
   B20_05
                   B20. ELECTRICITY
   B20A_05
                   B20A. ELECTRICITY - PER
                   B21. WATER
   B21_05
   B21A_05
                   B21A. WATER - PER
   B22_05
                   B22. HEAT
   B22A_05
                   B22A. HEAT - PER
   B23_05
                   B23. PHONE/CABLE/INTERNET
   B23A_05
                   B23A. PHONE/CABLE - PER
   B24_05
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_05
                   B24A. CAR PAYMENTS - PER
   B25_05
                   B25. HOUSEKEEPING SUPPLIES
   B25A_05
                   B25A. HOUSEKEEPING SUPPLIES - PER
                   B26. HOUSEKEEPING SERVICES
   B26_05
                   B26A. HOUSEKEEPING SERVICES - PER
   B26A_05
   B27_05
                   B27.GARDENING/YARD SUPPLIES
   B27A_05
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_05
                   B28. GARDEN/YARD SERVICES
   B28A_05
                   B28A. GARDEN/YARD SERVICES - PER
   B29 05
                   B29. CLOTHING AND APPAREL
                   B29A. CLOTHING - PER
   B29A_05
                   B30. PERSONAL CARE PRODUCTS/SERVICES
   B30_05
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_05
                   B31. DRUGS OOP
   B31_05
   B31A_05
                   B31A. DRUGS OOP - PER
                    B32. HEALTH SERVICES
   B32_05
   B32A_05
                   B32A. HEALTH SERVICES - PER
   B33_05
                   B33. MEDICAL SUPPLIES
   B33A_05
                   B33A. MED SUPPLIES - PER
   B34_05
                   B34. TICKETS
   B34A_05
                   B34A. TICKETS - PER
   B35_05
                   B35. SPORTS EQUIPMENT
   B35A_05
                   B35A. SPORTS EQUIPMENT - PER
                   B36. HOBBIES/LEISURE EQUIPMENT
   B36_05
   B36A 05
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37_05
                   B37. FOOD/DRINK GROCERY
   B37A_05
                   B37A. FOOD/DRINK GROC - PER
   B38_05
                   B38. DINING OUT
                   B38A. DINING OUT - PER
   B38A_05
   B39_05
                   B39. GASOLINE
   B39A_05
                   B39A. GASOLINE - PER
CAMS 2007:
   B1_07
                   B1. PURCHASE/LEASE AUTO
   B1A3_07
                   B1A3. AUTO YEAR - 1
                   B1A4. AUTO PRICE - 1
   B1A4_07
   B1A5_07
                   B1A5. AUTO/TRUCK NEW OR USED - 1
                   B1B3. AUTO YEAR - 2
   B1B3_07
   B1B4_07
                   B1B4. AUTO PRICE - 2
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_07
   B1C3_07
                   B1C3. AUTO YEAR - 3
   B1C4 07
                  B1C4. AUTO PRICE - 3
```

```
B1C5. AUTO/TRUCK NEW OR USED - 3
B1C5_07
               B2. BUY REFRIGERATOR
B2_07
B2A_07
               B2A. REFRIGERATOR PRICE
B3_07
               B3. BUY WASHER/DRYER
B3A_07
               B3A. WASHER/DRYER PRICE
               B4. BUY DISWASHER
B4_07
B4A_07
               B4A. DISHWASHER PRICE
B5_07
               B5. BUY TELEVISION
B5A_07
              B5A. TELEVISION PRICE
B6_07
              B6. BUY COMPUTER
B6A_07
              B6A. COMPUTER PRICE
              B7. HOME/RENTERS INSURANCE
B7_07
B8_07
              B8. PROPERTY TAXES
в9 07
              B9. VEHICLE INSURANCE
B10_07
               B10. VEHICLE MAINTENANCE
               B11. HEALTH INSURANCE
B11_07
               B12. TRIPS AND VACATIONS
B12_07
B13_07
               B13. HOME REPAIRS/MAINTENANCE DIY
               B14. HOME REPAIRS/MAINTENANCE SERVICES
B14_07
B15_07
               B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
B16_07
               B16. CONTRIBUTIONS
               B17. GIFTS
B17_07
B18_07
               B18. MORTGAGE
               B18A. MORTAGAGE - PER
B18A_07
B19_07
              B19. RENT
B19A_07
              B19A. RENT - PER
              B20. ELECTRICITY
B20_07
B20A 07
              B20A. ELECTRICITY - PER
              B21. WATER
B21_07
              B21A. WATER - PER
B21A_07
               B22. HEAT
B22_07
               B22A. HEAT - PER
B22A_07
B23_07
               B23. PHONE/CABLE/INTERNET
B23A_07
               B23A. PHONE/CABLE - PER
B24_07
               B24. CAR PAYMENTS INTEREST/PRINCIPAL
B24A_07
               B24A. CAR PAYMENTS - PER
B25_07
               B25. HOUSEKEEPING SUPPLIES
B25A_07
               B25A. HOUSEKEEPING SUPPLIES - PER
B26_07
               B26. HOUSEKEEPING SERVICES
B26A_07
              B26A. HOUSEKEEPING SERVICES - PER
B27_07
              B27. GARDENING/YARD SUPPLIES
              B27A. GARDEN/YARD SUPPLIES - PER
B27A_07
B28 07
              B28. GARDEN/YARD SERVICES
B28A 07
              B28A. GARDEN/YARD SERVICES - PER
              B29. CLOTHING AND APPAREL
B29 07
              B29A. CLOTHING - PER
B29A_07
               B30. PERSONAL CARE PRODUCTS/SERVICES
B30_07
B30A_07
               B30A. PERSONAL CARE PROD/SERVICES - PER
B31_07
               B31. DRUGS OOP
               B31A. DRUGS OOP - PER
B31A 07
B32_07
               B32. HEALTH SERVICES
               B32A. HEALTH SERVICES - PER
B32A_07
B33_07
               B33. MEDICAL SUPPLIES
              B33A. MED SUPPLIES - PER
B33A_07
              B34. TICKETS
B34_07
B34A 07
              B34A. TICKETS - PER
              B35. SPORTS EQUIPMENT
B35_07
B35A_07
              B35A. SPORTS EQUIPMENT - PER
B36 07
              B36. HOBBIES/LEISURE EQUIPMENT
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B36A_07
                   B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37_07
                   B37. FOOD/DRINK GROCERY
    B37A_07
                    B37A. FOOD/DRINK GROC - PER
   B38_07
                    B38. DINING OUT
   B38A_07
                   B38A. DINING OUT - PER
                   B39. GASOLINE
   B39_07
                   B39A. GASOLINE - PER
   B39A_07
CAMS 2009:
                   B1. PURCHASE/LEASE AUTO
   B1_09
   B1A3_09
                   B1A3. AUTO YEAR - 1
   B1A4_09
                   B1A4. AUTO PRICE - 1
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_09
   B1B3_09
                   B1B3. AUTO YEAR - 2
   B1B4_09
                   B1B4. AUTO PRICE - 2
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_09
                   B1C3. AUTO YEAR - 3
   B1C3_09
                   B1C4. AUTO PRICE - 3
   B1C4_09
   B1C5_09
                   B1C5. AUTO/TRUCK NEW OR USED - 3
                   B2. BUY REFRIGERATOR
   B2_09
   B2A_09
                   B2A. REFRIGERATOR PRICE
   вз 09
                   B3. BUY WASHER/DRYER
                   B3A. WASHER/DRYER PRICE
   B3A_09
                   B4. BUY DISWASHER
   B4_09
   B4A_09
                   B4A. DISHWASHER PRICE
   B5_09
                   B5. BUY TELEVISION
   B5A_09
                   B5A. TELEVISION PRICE
                   B6. BUY COMPUTER
   B6_09
   B6A 09
                   B6A. COMPUTER PRICE
                   B7. HOME/RENTERS INSURANCE
   B7_09
                   B8. PROPERTY TAXES
   B8_09
   B9_09
                   B9. VEHICLE INSURANCE
                   B10. VEHICLE MAINTENANCE
   B10_09
                   B11. HEALTH INSURANCE
   B11_09
   B12_09
                   B12. TRIPS AND VACATIONS
   B13_09
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_09
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B15_09
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_09
                   B16. CONTRIBUTIONS
   B17_09
                   B17. GIFTS
   B18_09
                   B18. MORTGAGE
   B18A_09
                   B18A. MORTAGAGE - PER
                   B19. RENT
   B19_09
   B19A 09
                  B19A. RENT - PER
   B20 09
                   B20. ELECTRICITY
                   B20A. ELECTRICITY - PER
   B20A_09
   B21_09
                   B21. WATER
                   B21A. WATER - PER
   B21A_09
   B22 09
                   B22. HEAT
   B22A_09
                   B22A. HEAT - PER
   B23 09
                   B23. PHONE/CABLE/INTERNET
                   B23A. PHONE/CABLE - PER
   B23A 09
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24 09
   B24A_09
                   B24A. CAR PAYMENTS - PER
   B25_09
                   B25. HOUSEKEEPING SUPPLIES
   B25A_09
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26 09
                   B26. HOUSEKEEPING SERVICES
                   B26A. HOUSEKEEPING SERVICES - PER
   B26A_09
   B27_09
                  B27. GARDENING/YARD SUPPLIES
   B27A 09
                  B27A. GARDEN/YARD SUPPLIES - PER
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B28_09
                   B28. GARDEN/YARD SERVICES
   B28A_09
                   B28A. GARDEN/YARD SERVICES - PER
   B29_09
                   B29. CLOTHING AND APPAREL
   B29A_09
                   B29A. CLOTHING - PER
   B30_09
                   B30. PERSONAL CARE PRODUCTS/SERVICES
   B30A_09
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B31_09
                   B31. DRUGS OOP
                   B31A. DRUGS OOP - PER
   B31A_09
                   B32. HEALTH SERVICES
   B32_09
   B32A_09
                   B32A. HEALTH SERVICES - PER
   B33_09
                   B33. MEDICAL SUPPLIES
                   B33A. MED SUPPLIES - PER
   B33A_09
   B34_09
                   B34. TICKETS
   B34A_09
                  B34A. TICKETS - PER
   B35_09
                   B35. SPORTS EQUIPMENT
   B35A_09
                   B35A. SPORTS EQUIPMENT - PER
   B36_09
                   B36. HOBBIES/LEISURE EQUIPMENT
   B36A_09
                   B36A. HOBBIES/LEISURE EQUIPMENT - PER
                   B37. FOOD/DRINK GROCERY
   B37_09
   B37A_09
                   B37A. FOOD/DRINK GROC - PER
   B38 09
                   B38. DINING OUT
                   B38A. DINING OUT - PER
   B38A_09
                   B39. GASOLINE
   B39_09
   B39A_09
                   B39A. GASOLINE - PER
CAMS 2011:
   B1_11
                   B1. PURCHASE/LEASE AUTO
                   B1A3. AUTO YEAR - 1
   B1A3_11
   B1A4_11
                   B1A4. AUTO PRICE - 1
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_11
                   B1B3. AUTO YEAR - 2
   B1B3_11
                   B1B4. AUTO PRICE - 2
   B1B4_11
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_11
   B1C3_11
                   B1C3. AUTO YEAR - 3
   B1C4_11
                   B1C4. AUTO PRICE - 3
   B1C5_11
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B2_11
                   B2. BUY REFRIGERATOR
   B2A_11
                   B2A. REFRIGERATOR PRICE
   B3_11
                   B3. BUY WASHER/DRYER
   B3A_11
                  B3A. WASHER/DRYER PRICE
   B4_11
                  B4. BUY DISWASHER
   B4A_11
                  B4A. DISHWASHER PRICE
                  B5. BUY TELEVISION
   B5_11
   B5A 11
                  B5A. TELEVISION PRICE
                  B6. BUY COMPUTER
   B6 11
   B6A_11
                   B6A. COMPUTER PRICE
                   B7. HOME/RENTERS INSURANCE
   B7_11
                   B8. PROPERTY TAXES
   B8_11
   B9 11
                   B9. VEHICLE INSURANCE
   B10_11
                   B10. VEHICLE MAINTENANCE
   B11 11
                   B11. HEALTH INSURANCE
   B12_11
                   B12. TRIPS AND VACATIONS
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B13_11
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_11
   B15_11
                  B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_11
                  B16. CONTRIBUTIONS
   B17_11
                   B17. GIFTS
                   B18. MORTGAGE
   B18_11
   B18A_11
                  B18A. MORTAGAGE - PER
   B19 11
                  B19. RENT
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B19A_11
                    B19A. RENT - PER
                    B20. ELECTRICITY
   B20_11
   B20A_11
                    B20A. ELECTRICITY - PER
   B21_11
                    B21. WATER
   B21A_11
                   B21A. WATER - PER
                   B22. HEAT
   B22_11
                    B22A. HEAT - PER
   B22A_11
                    B23. PHONE/CABLE/INTERNET
   B23_11
                    B23A. PHONE/CABLE - PER
   B23A_11
   B24_11
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_11
                    B24A. CAR PAYMENTS - PER
                   B25. HOUSEKEEPING SUPPLIES
   B25_11
   B25A_11
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_11
                   B26. HOUSEKEEPING SERVICES
   B26A_11
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_11
                   B27. GARDENING/YARD SUPPLIES
   B27A_11
                    B27A. GARDEN/YARD SUPPLIES - PER
                    B28. GARDEN/YARD SERVICES
   B28_11
   B28A_11
                    B28A. GARDEN/YARD SERVICES - PER
   B29_11
                   B29. CLOTHING AND APPAREL
                   B29A. CLOTHING - PER
   B29A_11
   B30_11
                   B30. PERSONAL CARE PRODUCTS/SERVICES
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_11
                   B31. DRUGS OOP
   B31_11
   B31A_11
                   B31A. DRUGS OOP - PER
   B32_11
                   B32. HEALTH SERVICES
   B32A_11
                   B32A. HEALTH SERVICES - PER
                   B33. MEDICAL SUPPLIES
   B33 11
                   B33A. MED SUPPLIES - PER
   B33A_11
                   B34. TICKETS
   B34_11
                   B34A. TICKETS - PER
   B34A_11
                    B35. SPORTS EQUIPMENT
   B35_11
   B35A_11
                    B35A. SPORTS EQUIPMENT - PER
                    B36. HOBBIES/LEISURE EQUIPMENT
   B36_11
   B36A_11
                    B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37_11
                    B37. FOOD/DRINK GROCERY
   B37A_11
                    B37A. FOOD/DRINK GROC - PER
   B38_11
                   B38. DINING OUT
   B38A_11
                   B38A. DINING OUT - PER
   B39_11
                   B39. GASOLINE
   B39A_11
                   B39A. GASOLINE - PER
CAMS 2013:
   B1 13
                   B1. PURCHASE/LEASE AUTO
   B1A3_13
                   B1A3. AUTO YEAR - 1
   B1A4_13
                   B1A4. AUTO PRICE - 1
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_13
                    B1B3. AUTO YEAR - 2
   B1B3_13
   B1B4_13
                    B1B4. AUTO PRICE - 2
   B1B5_13
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3 13
                    B1C3. AUTO YEAR - 3
   B1C4_13
                   B1C4. AUTO PRICE - 3
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_13
                   B2. BUY REFRIGERATOR
   B2_13
                   B2A. REFRIGERATOR PRICE
   B2A_13
                   B3. BUY WASHER/DRYER
   B3_13
   B3A_13
                   B3A. WASHER/DRYER PRICE
   B4_13
                   B4. BUY DISWASHER
   B4A_13
                   B4A. DISHWASHER PRICE
   B5 13
                   B5. BUY TELEVISION
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B5A. TELEVISION PRICE
B5A_13
                B6. BUY COMPUTER
B6_13
B6A_13
                B6A. COMPUTER PRICE
B7_13
                B7. HOME/RENTERS INSURANCE
B8_13
                B8. PROPERTY TAXES
B9_13
               B9. VEHICLE INSURANCE
               B10. VEHICLE MAINTENANCE
B10_13
B11_13
                B11. HEALTH INSURANCE
                B12. TRIPS AND VACATIONS
B12_13
B13_13
                B13. HOME REPAIRS/MAINTENANCE DIY
B14_13
                B14. HOME REPAIRS/MAINTENANCE SERVICES
B15_13
                B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
B16_13
               B16. CONTRIBUTIONS
B17_13
                B17. GIFTS
B18_13
                B18. MORTGAGE
B18A_13
                B18A. MORTGAGE - PER
B19_13
                B19. RENT
B19A_13
                B19A. RENT - PER
                B20. ELECTRICITY
B20_13
B20A_13
                B20A. ELECTRICITY - PER
B21_13
                B21. WATER
                B21A. WATER - PER
B21A_13
                B22. HEAT
B22_13
                B22A. HEAT - PER
B22A_13
B23_13
                B23. PHONE/CABLE/INTERNET
B23A_13
               B23A. PHONE/CABLE - PER
B24_13
                B24. CAR PAYMENTS INTEREST/PRINCIPAL
B24A 13
               B24A. CAR PAYMENTS - PER
               B25. HOUSEKEEPING SUPPLIES
B25_13
B25A_13
                B25A. HOUSEKEEPING SUPPLIES - PER
B26_13
                B26. HOUSEKEEPING SERVICES
B26A_13
                B26A. HOUSEKEEPING SERVICES - PER
B27_13
                B27. GARDENING/YARD SUPPLIES
B27A_13
                B27A. GARDEN/YARD SUPPLIES - PER
B28_13
                B28. GARDEN/YARD SERVICES
B28A_13
                B28A. GARDEN/YARD SERVICES - PER
B29_13
                B29. CLOTHING AND APPAREL
B29A_13
                B29A. CLOTHING - PER
B30_13
                B30. PERSONAL CARE PRODUCTS/SERVICES
B30A_13
                B30A. PERSONAL CARE PROD/SERVICES - PER
B31_13
                B31. DRUGS OOP
               B31A. DRUGS OOP - PER
B31A_13
B32 13
               B32. HEALTH SERVICES
B32A 13
               B32A. HEALTH SERVICES - PER
B33 13
               B33. MEDICAL SUPPLIES
                B33A. MED SUPPLIES - PER
B33A_13
                B34. TICKETS
B34_13
B34A_13
                B34A. TICKETS - PER
B35_13
                B35. SPORTS EQUIPMENT
B35A 13
                B35A. SPORTS EQUIPMENT - PER
B36_13
                B36. HOBBIES/LEISURE EQUIPMENT
B36A_13
                B36A. HOBBIES/LEISURE EQUIPMENT - PER
B37_13
                B37. FOOD/DRINK GROCERY
                B37A. FOOD/DRINK GROC - PER
B37A_13
B38_13
                B38. DINING OUT
B38A 13
                B38A. DINING OUT - PER
                B39. GASOLINE
B39_13
B39A_13
               B39A. GASOLINE - PER
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CAMS 2015:

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B1_15
                B1. PURCHASE/LEASE AUTO
B1A3_15
                B1A3. AUTO YEAR - 1
B1A4_15
                B1A4. AUTO PRICE - 1
B1A5_15
                B1A5. AUTO/TRUCK NEW OR USED - 1
B1B3_15
                B1B3. AUTO YEAR - 2
                B1B4. AUTO PRICE - 2
B1B4_15
B1B5_15
                B1B5. AUTO/TRUCK NEW OR USED - 2
B1C3_15
                B1C3. AUTO YEAR - 3
                B1C4. AUTO PRICE - 3
B1C4_15
B1C5_15
                B1C5. AUTO/TRUCK NEW OR USED - 3
B2_15
                B2. BUY REFRIGERATOR
               B2A. REFRIGERATOR PRICE
B2A_15
B3_15
               B3. BUY WASHER/DRYER
B3A_15
               B3A. WASHER/DRYER PRICE
B4_15
               B4. BUY DISWASHER
B4A_15
                B4A. DISHWASHER PRICE
B5_15
                B5. BUY TELEVISION
B5A_15
                B5A. TELEVISION PRICE
                B6. BUY COMPUTER
B6_15
B6A_15
                B6A. COMPUTER PRICE
В7 15
                B7. HOME/RENTERS INSURANCE
               B8. PROPERTY TAXES
B8_15
               B9. VEHICLE INSURANCE
B9_15
B10_15
               B10. VEHICLE MAINTENANCE
B11_15
               B11. HEALTH INSURANCE
B12_15
               B12. TRIPS AND VACATIONS
B13_15
               B13. HOME REPAIRS/MAINTENANCE DIY
B14 15
               B14. HOME REPAIRS/MAINTENANCE SERVICES
B15_15
               B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
B16_15
               B16. CONTRIBUTIONS
B17_15
               B17. GIFTS
B18_15
                B18. MORTGAGE
B18A_15
                B18A. MORTGAGE - PER
                B19. RENT
B19_15
B19A_15
                B19A. RENT - PER
B20 15
                B20. ELECTRICITY
B20A_15
                B20A. ELECTRICITY - PER
B21_15
                B21. WATER
B21A_15
                B21A. WATER - PER
B22_15
                B22. HEAT
B22A_15
                B22A. HEAT - PER
                B23. PHONE/CABLE/INTERNET
B23_15
B23A 15
               B23A. PHONE/CABLE - PER
B24 15
               B24. CAR PAYMENTS INTEREST/PRINCIPAL
B24A 15
               B24A. CAR PAYMENTS - PER
               B25. HOUSEKEEPING SUPPLIES
B25_15
               B25A. HOUSEKEEPING SUPPLIES - PER
B25A_15
B26_15
                B26. HOUSEKEEPING SERVICES
B26A_15
                B26A. HOUSEKEEPING SERVICES - PER
B27 15
                B27. GARDENING/YARD SUPPLIES
B27A 15
                B27A. GARDEN/YARD SUPPLIES - PER
                B28. GARDEN/YARD SERVICES
B28 15
                B28A. GARDEN/YARD SERVICES - PER
B28A_15
               B29. CLOTHING AND APPAREL
B29 15
B29A_15
               B29A. CLOTHING - PER
B30 15
                B30. PERSONAL CARE PRODUCTS/SERVICES
               B30A. PERSONAL CARE PROD/SERVICES - PER
B30A_15
B31_15
               B31. DRUGS OOP
B31A 15
               B31A. DRUGS OOP - PER
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B32_15
                    B32. HEALTH SERVICES
                    B32A. HEALTH SERVICES - PER
   B32A_15
   B33_15
                    B33. MEDICAL SUPPLIES
   B33A_15
                    B33A. MED SUPPLIES - PER
   B34_15
                   B34. TICKETS
   B34A_15
                    B34A. TICKETS - PER
                    B35. SPORTS EQUIPMENT
   B35_15
   B35A_15
                    B35A. SPORTS EQUIPMENT - PER
                   B36. HOBBIES/LEISURE EQUIPMENT
   B36_15
   B36A_15
                   B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37_15
                    B37. FOOD/DRINK GROCERY
                   B37A. FOOD/DRINK GROC - PER
   B37A_15
   B38_15
                   B38. DINING OUT
   B38A_15
                   B38A. DINING OUT - PER
   B39_15
                   B39. GASOLINE
   B39A_15
                   B39A. GASOLINE - PER
CAMS 2017:
   B1_17
                    B1. PURCHASE/LEASE AUTO
                    B1A3. AUTO YEAR - 1
   B1A3_17
   B1A4_17
                    B1A4. AUTO PRICE - 1
   B1A5_17
                    B1A5. AUTO/TRUCK NEW OR USED - 1
                   B1B3. AUTO YEAR - 2
   B1B3_17
                   B1B4. AUTO PRICE - 2
   B1B4_17
   B1B5_17
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_17
                   B1C3. AUTO YEAR - 3
   B1C4_17
                   B1C4. AUTO PRICE - 3
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_17
   B2 17
                   B2. BUY REFRIGERATOR
                   B2A. REFRIGERATOR PRICE
   B2A_17
                   B3. BUY WASHER/DRYER
   B3_17
   B3A_17
                   B3A. WASHER/DRYER PRICE
                   B4. BUY DISWASHER
   B4_17
   B4A_17
                   B4A. DISHWASHER PRICE
                    B5. BUY TELEVISION
   B5_17
   B5A_17
                   B5A. TELEVISION PRICE
   B6_17
                   B6. BUY COMPUTER
   B6A_17
                   B6A. COMPUTER PRICE
   B7_17
                    B7. HOME/RENTERS INSURANCE
   B8_17
                   B8. PROPERTY TAXES
   B9_17
                   B9. VEHICLE INSURANCE
   B10_17
                   B10. VEHICLE MAINTENANCE
                   B11. HEALTH INSURANCE
   B11_17
   B12 17
                   B12. TRIPS AND VACATIONS
   B13_17
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_17
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B15_17
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_17
                   B16. CONTRIBUTIONS
   B17_17
                    B17. GIFTS
   B18_17
                    B18. MORTGAGE
   B18A 17
                    B18A. MORTGAGE - PER
   B19_17
                    B19. RENT
                    B19A. RENT - PER
   B19A_17
                   B20. ELECTRICITY
   B20_17
   B20A_17
                   B20A. ELECTRICITY - PER
   B21_17
                   B21. WATER
   B21A_17
                   B21A. WATER - PER
                   B22. HEAT
   B22_17
   B22A_17
                   B22A. HEAT - PER
   B23 17
                   B23. PHONE/CABLE/INTERNET
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B23A_17	B23A. PHONE/CABLE - PER B24. CAR PAYMENTS INTEREST/PRINCIPAL
B24_17	B24. CAR PAYMENTS INTEREST/PRINCIPAL
B24A_17	B24A. CAR PAYMENTS - PER
B25_17	B25. HOUSEKEEPING SUPPLIES
B25A_17	B25A. HOUSEKEEPING SUPPLIES - PER
B26_17	B26. HOUSEKEEPING SERVICES
B26A_17	B26. HOUSEKEEPING SERVICES B26A. HOUSEKEEPING SERVICES - PER
B27_17	B27. GARDENING/YARD SUPPLIES
B27A_17	B27A. GARDEN/YARD SUPPLIES - PER
B28_17	B28. GARDEN/YARD SERVICES
B28A_17	B28A. GARDEN/YARD SERVICES - PER B29. CLOTHING AND APPAREL
B29_17	B29. CLOTHING AND APPAREL
B29A_17	B29A. CLOTHING - PER
	B30. PERSONAL CARE PRODUCTS/SERVICES
B30A_17	B30A. PERSONAL CARE PROD/SERVICES - PER
B31_17	B31. DRUGS OOP B31A. DRUGS OOP - PER
B31A_17	B31A. DRUGS OOP - PER
B32_17	B32. HEALTH SERVICES
	B32A. HEALTH SERVICES - PER
B33_17	B33. MEDICAL SUPPLIES
B33A_17	B33A. MED SUPPLIES - PER B34. TICKETS
B34_17	B34. TICKETS
B34A_17	B34A. TICKETS - PER
B35_17	B35. SPORTS EQUIPMENT
B35A_17	B35A. SPORTS EQUIPMENT - PER
B36_17	B36. HOBBIES/LEISURE EQUIPMENT
B36A_17	B36. HOBBIES/LEISURE EQUIPMENT B36A. HOBBIES/LEISURE EQUIPMENT - PER
	B37. FOOD/DRINK GROCERY
	B37A. FOOD/DRINK GROC - PER
B38_17	B38. DINING OUT
B38A_17	B38A. DINING OUT - PER
B39_17	B39. GASOLINE
B39A_17	B39A. GASOLINE - PER

# 2.8 Total Durables Spending

Wave	Variable	Label	Type
5 6 7 8 9 10 11 12	H5CDURS H6CDURS H7CDURS H8CDURS H9CDURS H10CDURS H11CDURS H12CDURS H13CDURS	H5CDURS:W5 CAMS: Total HHold Durables Spending excl. auto purch. H6CDURS:W6 CAMS: Total HHold Durables Spending excl. auto purch. H7CDURS:W7 CAMS: Total HHold Durables Spending excl. auto purch. H8CDURS:W8 CAMS: Total HHold Durables Spending excl. auto purch. H9CDURS:W9 CAMS: Total HHold Durables Spending excl. auto purch. H1CDURS:W10 CAMS: Total HHold Durables Spending excl. auto purch. H1CDURS:W11 CAMS: Total HHold Durables Spending excl. auto purch. H12CDURS:W12 CAMS: Total HHold Durables Spending excl. auto purch. H13CDURS:W13 CAMS: Total HHold Durables Spending excl. auto purch.	Cont Cont Cont Cont Cont Cont Cont Cont
5 6 7 8 9 10 11 12	H5CDURSF H6CDURSF H7CDURSF H8CDURSF H9CDURSF H10CDURSF H11CDURSF H12CDURSF H13CDURSF	H5CDURSF:W5 CAMSFlag: Total HHold Durables Spending H6CDURSF:W6 CAMSFlag: Total HHold Durables Spending H7CDURSF:W7 CAMSFlag: Total HHold Durables Spending H8CDURSF:W8 CAMSFlag: Total HHold Durables Spending H9CDURSF:W9 CAMSFlag: Total HHold Durables Spending H10CDURSF:W10 CAMSFlag: Total HHold Durables Spending H11CDURSF:W11 CAMSFlag: Total HHold Durables Spending H12CDURSF:W12 CAMSFlag: Total HHold Durables Spending H13CDURSF:W13 CAMSFlag: Total HHold Durables Spending	Categ Categ Categ Categ Categ Categ Categ Categ

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CDURS	3789	316.35	678.87	0.0	7600.0
H6CDURS	3224	295.02	643.17	0.0	7322.0
H7CDURS	3832	357.66	791.86	0.0	7900.0
H8CDURS	3704	398.50	837.56	0.0	11309.0
H9CDURS	3550	366.74	713.33	0.0	6700.0
H10CDURS	4319	341.60	671.57	0.0	7189.0
H11CDURS	4017	309.14	654.95	0.0	6400.0
H12CDURS	3689	285.09	679.87	0.0	10200.0
H13CDURS	3454	286.52	669.03	0.0	8900.0
H5CDURSF	3789	0.20	0.71	0.0	4.0
H6CDURSF	3224	0.24	0.79	0.0	4.0
H7CDURSF	3832	0.25	0.81	0.0	4.0
H8CDURSF	3704	0.14	0.60	0.0	4.0
H9CDURSF	3550	0.11	0.50	0.0	4.0
H10CDURSF	4319	0.11	0.51	0.0	4.0
H11CDURSF	4017	0.10	0.49	0.0	4.0
H12CDURSF	3689	0.08	0.43	0.0	4.0
H13CDURSF	3454	0.09	0.46	0.0	4.0

	Ни	CDURSF:	CAMSFlag	: Total F	HHold Du	ırables S	Spending				
Value	I	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T Resp <10 cat						77	30	47	34	37	51
0. no winsor or imp						3498	2920	3477	3488	3376	4107
1. winsor only						41	37	38	38	40	37
2. mean imp only						51	53	51	52	71	90
3. zero imp only						198	210	253	124	57	81
4. imp & winsor	I					1	4	13	2	6	4
Value	1	w11	w12	w13							
.T Resp <10 cat		50	48	52							
0. no winsor or imp		3828	3553	3314							
1. winsor only		34	41	40							
2. mean imp only		83	42	44							
3. zero imp only		71	50	49							
4. imp & winsor	1	1	3	7							

### **General Comments**

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in the section titled "1.10 Imputation and Cleaning 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 "1.5 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 13 which asks about 2017 spending.

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

#### **How Constructed**

HwCDURS is the sum of all of the household spending on durable goods excluding autos. The durable spending categories do not vary by wave. There are five durable categories: refrigerator, washer/dryer, dishwasher, television, and computer.

HwCDURSF is a flag that indicates whether any durable components are imputed or winsorized. Please see "1.10 Imputation and Cleaning of Spending Variables" for more information.

CAMS 2001:	
B2_01	B2. BUY REFRIGERATOR
B2A_01	B2A. REFRIGERATOR PRICE
B3_01	B3. BUY WASHER/DRYER
B3A_01	B3A. WASHER/DRYER PRICE

B4_01	B4. BUY DISWASHER
B4A_01	B4A. DISHWASHER PRICE
B5_01	B5. BUY TELEVISION
B5A_01	B5A. TELEVISION PRICE
B6_01	B6. BUY COMPUTER
B6A_01	B6A. COMPUTER PRICE
CAMS 2003:	
B2_03	B2. BUY REFRIGERATOR
B2A 03	B2A. REFRIGERATOR PRICE
B3_03	B3. BUY WASHER/DRYER
B3A_03	B3A. WASHER/DRYER PRICE
B4_03	B4. BUY DISWASHER
B4A_03	B4A. DISHWASHER PRICE
B5_03	B5. BUY TELEVISION
B5A_03	B5A. TELEVISION PRICE
<del>-</del>	
B6_03	B6. BUY COMPUTER
<del>-</del>	B6A. COMPUTER PRICE
CAMS 2005:	
B2_05	B2. BUY REFRIGERATOR
B2A_05	B2A. REFRIGERATOR PRICE
B3_05	B3. BUY WASHER/DRYER
B3A_05	B3A. WASHER/DRYER PRICE
B4_05	B4. BUY DISWASHER
B4A_05	B4A. DISHWASHER PRICE
B5_05	B5. BUY TELEVISION
B5A_05	B5A. TELEVISION PRICE
B6_05	B6. BUY COMPUTER
B6A_05	B6A. COMPUTER PRICE
CAMS 2007:	
B2_07	B2. BUY REFRIGERATOR
B2A_07	B2A. REFRIGERATOR PRICE
B3_07	B3. BUY WASHER/DRYER
B3A_07	B3A. WASHER/DRYER PRICE
 B4_07	B4. BUY DISWASHER
B4A_07	B4A. DISHWASHER PRICE
B5_07	B5. BUY TELEVISION
B5A_07	B5A. TELEVISION PRICE
<del>-</del>	B6. BUY COMPUTER
<del>-</del>	B6A. COMPUTER PRICE
CAMS 2009:	Bon. Com othic rices
B2_09	B2. BUY REFRIGERATOR
B2A_09	B2A. REFRIGERATOR PRICE
B3_09	B3. BUY WASHER/DRYER
<del>-</del>	
B3A_09	B3A. WASHER/DRYER PRICE
B4_09	B4. BUY DISWASHER
B4A_09	B4A. DISHWASHER PRICE
B5_09	B5. BUY TELEVISION
B5A_09	B5A. TELEVISION PRICE
B6_09	B6. BUY COMPUTER
B6A_09	B6A. COMPUTER PRICE
CAMS 2011:	
B2_11	B2. BUY REFRIGERATOR
B2A_11	B2A. REFRIGERATOR PRICE
B3_11	B3. BUY WASHER/DRYER
B3A_11	B3A. WASHER/DRYER PRICE
B4_11	B4. BUY DISWASHER
B4A_11	B4A. DISHWASHER PRICE
B5_11	B5. BUY TELEVISION
B5A_11	B5A. TELEVISION PRICE
_	· -

B6_11	B6. BUY COMPUTER
	B6A. COMPUTER PRICE
CAMS 2013:	
B2_13	B2. BUY REFRIGERATOR
	B2A. REFRIGERATOR PRICE
	B3. BUY WASHER/DRYER
B3A_13	B3A. WASHER/DRYER PRICE
	B4. BUY DISWASHER
B4A_13	B4A. DISHWASHER PRICE
B5_13	B5. BUY TELEVISION
B5A_13	B5A. TELEVISION PRICE
B6_13	B6. BUY COMPUTER
B6A_13	B6A. COMPUTER PRICE
CAMS 2015:	
B2_15	B2. BUY REFRIGERATOR
B2A_15	B2A. REFRIGERATOR PRICE
B3_15	B3. BUY WASHER/DRYER
B3A_15	B3A. WASHER/DRYER PRICE
B4_15	B4. BUY DISWASHER
B4A_15	B4A. DISHWASHER PRICE
B5_15	B5. BUY TELEVISION
B5A_15	B5A. TELEVISION PRICE
B6_15	B6. BUY COMPUTER
B6A_15	B6A. COMPUTER PRICE
CAMS 2017:	
B2_17	B2. BUY REFRIGERATOR
B2A_17	B2A. REFRIGERATOR PRICE
B3_17	B3. BUY WASHER/DRYER
B3A_17	B3A. WASHER/DRYER PRICE
B4_17	B4. BUY DISWASHER
B4A_17	B4A. DISHWASHER PRICE
B5_17	B5. BUY TELEVISION
B5A_17	B5A. TELEVISION PRICE
B6_17	B6. BUY COMPUTER
B6A_17	B6A. COMPUTER PRICE

# 2.9 Total Nondurables Spending

Wave	Variable	Label	Туре
5	H5CNDUR	H5CNDUR:W5 CAMS: Total HHold Nondurables Spending	Cont
6	H6CNDUR	H6CNDUR:W6 CAMS: Total HHold Nondurables Spending	Cont
7	H7CNDUR	H7CNDUR:W7 CAMS: Total HHold Nondurables Spending	Cont
8	H8CNDUR	H8CNDUR:W8 CAMS: Total HHold Nondurables Spending	Cont
9	H9CNDUR	H9CNDUR:W9 CAMS: Total HHold Nondurables Spending	Cont
10	H10CNDUR	H10CNDUR:W10 CAMS: Total HHold Nondurables Spending	Cont
11	H11CNDUR	H11CNDUR:W11 CAMS: Total HHold Nondurables Spending	Cont
12	H12CNDUR	H12CNDUR:W12 CAMS: Total HHold Nondurables Spending	Cont
13	H13CNDUR	H13CNDUR:W13 CAMS: Total HHold Nondurables Spending	Cont
5	H5CNDURF	H5CNDURF:W5 CAMSFlag: Total HHold Nondurables Spending	Categ
6	H6CNDURF	H6CNDURF:W6 CAMSFlag: Total HHold Nondurables Spending	Categ
7	H7CNDURF	H7CNDURF:W7 CAMSFlag: Total HHold Nondurables Spending	Categ
8	H8CNDURF	H8CNDURF:W8 CAMSFlag: Total HHold Nondurables Spending	Categ
9	H9CNDURF	H9CNDURF:W9 CAMSFlag: Total HHold Nondurables Spending	Categ
10	H10CNDURF	H10CNDURF:W10 CAMSFlag: Total HHold Nondurables Spending	Categ
11	H11CNDURF	H11CNDURF:W11 CAMSFlag: Total HHold Nondurables Spending	Categ
12	H12CNDURF	H12CNDURF:W12 CAMSFlag: Total HHold Nondurables Spending	Categ
13	H13CNDURF	H13CNDURF:W13 CAMSFlag: Total HHold Nondurables Spending	Categ

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CNDUR	3789	21044.69	20578.03	0.0	344880.0
H6CNDUR	3224	24331.15	21756.15	0.0	276570.0
H7CNDUR	3832	22422.09	18821.10	0.0	221677.0
H8CNDUR	3704	23301.69	19181.06	0.0	235800.0
H9CNDUR	3550	22727.57	17947.02	0.0	194298.0
H10CNDUR	4319	22969.87	18927.78	0.0	194912.0
H11CNDUR	4017	23308.94	19748.06	0.0	213470.0
H12CNDUR	3689	24625.67	22306.99	0.0	257312.0
H13CNDUR	3454	25695.00	23588.78	0.0	289547.0
H5CNDURF	3789	0.63	0.94	0.0	3.0
H6CNDURF	3224	0.62	0.93	0.0	3.0
H7CNDURF	3832	0.65	0.94	0.0	3.0
H8CNDURF	3704	0.59	0.91	0.0	3.0
H9CNDURF	3550	0.60	0.93	0.0	3.0
H10CNDURF	4319	0.57	0.91	0.0	3.0
H11CNDURF	4017	0.58	0.91	0.0	3.0
H12CNDURF	3689	0.54	0.90	0.0	3.0
H13CNDURF	3454	0.52	0.88	0.0	3.0

	HwCN	IDURF: CA	MSFlag:	Total HHc	old Nonc	durables	Spending	Г			
Value	1	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T Resp <10 cat						77	30	47	34	37	51
0. no winsor or imp	- 1					2594	2186	2549	2573	2453	3045
1. winsor only	- 1					73	113	126	123	117	117
2. mean imp only	1					1067	883	1102	961	922	1113
3. imp & winsor	1					55	42	55	47	58	44
Value	I	w11	w12	w13							
.T Resp <10 cat		50	48	52							
0. no winsor or imp	1	2814	2668	2504							
1. winsor only	1	122	113	129							
2. mean imp only	1	1029	852	785							
3. imp & winsor	ĺ	52	56	36							

#### **General Comments**

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in the section titled "1.10 Imputation and Cleaning 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 "1.5 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 13 which asks about 2017 spending.

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

#### **How Constructed**

HwCNDUR is the sum of all of the nondurable spending in the household. The spending categories vary by wave, but in general include: gifts, clothing, charitable contributions, dining out, medications and medical supplies, utilities (heat, water and electricity), 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 "CAMS Variables Used" below and section "1.5 Differences Across Waves" for details of which nondurable categories are available in each wave.

HwCNDURF is a flag that indicates whether any nondurable components are imputed or winsorized. Please see "1.10 Imputation and Cleaning of Spending Variables" for more information.

### **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 "1.5 Differences Across Waves").

```
CAMS 2001:
                   B11. ELECTRICITY
   B11_01
   B11A_01
                   B11A. ELECTRICITY - PER
                   B12. WATER
   B12_01
                  B12A. WATER - PER
   B12A_01
                  B13. HEAT
   B13_01
   B13A_01
                  B13A. HEAT - PER
                  B14. PHONE/CABLE/INTERNET
   B14_01
   B14A_01
                  B14A. PHONE/CABLE - PER
   B17_01
                  B17. HEALTH INSURANCE
                  B17A. HEALTH INSUR - PER
   B17A_01
                  B18. HOUSE/YARD SUPPLIES
   B18_01
                  B18A. HOUSE/YARD - PER
   B18A_01
   B20A_01
                   B20. FOOD/DRINK GROC - PER
   B20_01
                   B20. FOOD/DRINK GROCERY
                   B21. DINING OUT
   B21_01
                   B21A. DINING OUT - PER
   B21A_01
                   B22. CLOTHING
   B22_01
   B22A_01
                   B22A. CLOTHING - PER
   B25_01
                   B25. DRUGS
   B25A_01
                   B25A. DRUGS - PER
   B26_01
                  B26. HEALTH SERVICES
   B26A_01
                  B26A. HEALTH SERVICES - PER
                  B27. MEDICAL SUPPLIES
   B27_01
   B27A_01
                  B27A. MED SUPPLIES - PER
                  B28. VACATIONS
   B28_01
                  B28A. VACATIONS - PER
   B28A_01
                   B29. TICKETS
   B29_01
                   B29A. TICKETS - PER
   B29A_01
   B30_01
                   B30. HOBBIES
   B30A_01
                   B30A. HOBBIES - PER
                   B31. CONTRIBUTIONS
   B31_01
   B31A_01
                   B31A. CONTRIBUTIONS - PER
                   B32. GIFTS
   B32_01
                  B32A. GIFTS - PER
   B32A_01
CAMS 2003:
   B11_03
                  B11. HEALTH INSURANCE
   B12_03
                  B12. TRIPS AND VACATIONS
   B15_03
                  B15. ELECTRICITY
   B15A 03
                  B15A. ELECTRICITY - PER
   B16_03
                  B16. WATER
   B16A_03
                  B16A. WATER - PER
                   B17. HEAT
   B17_03
   B17A_03
                   B17A. HEAT - PER
   B18_03
                   B18. PHONE/CABLE/INTERNET
   B18A_03
                   B18A. PHONE/CABLE - PER
                   B20. HOUSEKEEPING SUPPLIES
   B20_03
   B20A_03
                   B20A. HOUSEKEEPING SUPPLIES - PER
                   B21. HOUSEKEEPING SERVICES
   B21_03
                  B21A. HOUSEKEEPING SERVICES - PER
   B21A_03
                  B22.GARDENING/YARD SUPPLIES
   B22_03
   B22A_03
                  B22A. GARDEN/YARD SUPPLIES - PER
   B23 03
                  B23. GARDEN/YARD SERVICES
   B23A_03
                  B23A. GARDEN/YARD SERVICES - PER
                  B26. CLOTHING AND APPAREL
   B26 03
   B26A 03
                  B26A. CLOTHING - PER
   B27 03
                  B27. PERSONAL CARE PRODUCTS/SERVICES
                  B27A. PERSONAL CARE PRODUCTS/SERVICES - PER
   B27A_03
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B28_03
                   B28. DRUGS
                   B28A. DRUGS - PER
   B28A_03
   B29_03
                   B29. HEALTH SERVICES
   B29A_03
                   B29A. HEALTH SERVICES - PER
   B30_03
                   B30. MEDICAL SUPPLIES
   B30A_03
                   B30A. MED SUPPLIES - PER
   B31_03
                   B31. TICKETS
   B31A_03
                  B31A. TICKETS - PER
   B32_03
                  B32. SPORTS EQUIPMENT
   B32A_03
                  B32A. SPORTS EQUIPMENT - PER
   B33_03
                  B33. HOBBIES/LEISURE EQUIPMENT
                  B33A. HOBBIES/LEISURE EQUIPMENT - PER
   B33A_03
   B34_03
                  B34. CONTRIBUTIONS
   B34A_03
                  B34A. CONTRIBUTIONS - PER
                   B35. GIFTS
   B35_03
   B35A_03
                   B35A. GIFTS - PER
   B36A_03
                   B36. FOOD/DRINK GROC - PER
   B36_03
                   B36. FOOD/DRINK GROCERY
                   B37. DINING OUT
   B37_03
   B37A_03
                   B37A. DINING OUT - PER
CAMS 2005:
                   B11. HEALTH INSURANCE
   B11_05
                   B12. TRIPS AND VACATIONS
   B12_05
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B15_05
   B16_05
                  B16. CONTRIBUTIONS
   B17_05
                  B17. GIFTS
                  B20. ELECTRICITY
   B20_05
                  B20A. ELECTRICITY - PER
   B20A 05
                  B21. WATER
   B21_05
                  B21A. WATER - PER
   B21A_05
   B22_05
                   B22. HEAT
   B22A_05
                   B22A. HEAT - PER
   B23_05
                   B23. PHONE/CABLE/INTERNET
   B23A_05
                   B23A. PHONE/CABLE - PER
   B25_05
                   B25. HOUSEKEEPING SUPPLIES
   B25A_05
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_05
                   B26. HOUSEKEEPING SERVICES
   B26A_05
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_05
                  B27.GARDENING/YARD SUPPLIES
   B27A_05
                  B27A. GARDEN/YARD SUPPLIES - PER
   B28_05
                  B28. GARDEN/YARD SERVICES
                  B28A. GARDEN/YARD SERVICES - PER
   B28A_05
   B29 05
                  B29. CLOTHING AND APPAREL
   B29A 05
                  B29A. CLOTHING - PER
   B30 05
                  B30. PERSONAL CARE PRODUCTS/SERVICES
                  B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_05
                   B31. DRUGS OOP
   B31_05
   B31A_05
                   B31A. DRUGS OOP - PER
   B32_05
                   B32. HEALTH SERVICES
   B32A 05
                   B32A. HEALTH SERVICES - PER
   B33_05
                   B33. MEDICAL SUPPLIES
                   B33A. MED SUPPLIES - PER
   B33A_05
                   B34. TICKETS
   B34_05
                  B34A. TICKETS - PER
   B34A_05
                  B35. SPORTS EQUIPMENT
   B35_05
   B35A_05
                  B35A. SPORTS EQUIPMENT - PER
                  B36. HOBBIES/LEISURE EQUIPMENT
   B36 05
   B36A_05
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37 05
                  B37. FOOD/DRINK GROCERY
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B37A_05
                   B37A. FOOD/DRINK GROC - PER
                   B38. DINING OUT
   B38_05
   B38A_05
                   B38A. DINING OUT - PER
CAMS 2007:
   B11_07
                   B11. HEALTH INSURANCE
   B12_07
                   B12. TRIPS AND VACATIONS
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B15_07
   B16_07
                   B16. CONTRIBUTIONS
   B17_07
                  B17. GIFTS
   B20_07
                  B20. ELECTRICITY
   B20A_07
                  B20A. ELECTRICITY - PER
                  B21. WATER
   B21_07
   B21A_07
                  B21A. WATER - PER
   B22_07
                  B22. HEAT
   B22A_07
                  B22A. HEAT - PER
   B23_07
                   B23. PHONE/CABLE/INTERNET
   B23A_07
                   B23A. PHONE/CABLE - PER
   B25_07
                   B25. HOUSEKEEPING SUPPLIES
   B25A_07
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_07
                   B26. HOUSEKEEPING SERVICES
   B26A_07
                   B26A. HOUSEKEEPING SERVICES - PER
                   B27. GARDENING/YARD SUPPLIES
   B27_07
                   B27A. GARDEN/YARD SUPPLIES - PER
   B27A_07
   B28_07
                   B28. GARDEN/YARD SERVICES
   B28A_07
                  B28A. GARDEN/YARD SERVICES - PER
   B29_07
                  B29. CLOTHING AND APPAREL
   B29A_07
                  B29A. CLOTHING - PER
   B30 07
                  B30. PERSONAL CARE PRODUCTS/SERVICES
                  B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_07
   B31_07
                  B31. DRUGS OOP
                  B31A. DRUGS OOP - PER
   B31A_07
   B32_07
                   B32. HEALTH SERVICES
   B32A_07
                   B32A. HEALTH SERVICES - PER
   B33_07
                   B33. MEDICAL SUPPLIES
   B33A_07
                   B33A. MED SUPPLIES - PER
   B34_07
                   B34. TICKETS
                   B34A. TICKETS - PER
   B34A_07
   B35_07
                   B35. SPORTS EQUIPMENT
   B35A_07
                  B35A. SPORTS EQUIPMENT - PER
   B36_07
                  B36. HOBBIES/LEISURE EQUIPMENT
   B36A_07
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
                   B37. FOOD/DRINK GROCERY
   B37_07
   B37A 07
                  B37A. FOOD/DRINK GROC - PER
   B38 07
                  B38. DINING OUT
                  B38A. DINING OUT - PER
   B38A_07
CAMS 2009:
   B11_09
                   B11. HEALTH INSURANCE
   B12 09
                   B12. TRIPS AND VACATIONS
   B15_09
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16 09
                   B16. CONTRIBUTIONS
   B17_09
                   B17. GIFTS
   B20 09
                   B20. ELECTRICITY
                   B20A. ELECTRICITY - PER
   B20A_09
   B21_09
                  B21. WATER
   B21A_09
                  B21A. WATER - PER
   B22 09
                  B22. HEAT
                  B22A. HEAT - PER
   B22A_09
   B23_09
                  B23. PHONE/CABLE/INTERNET
   B23A 09
                  B23A. PHONE/CABLE - PER
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B25_09
                   B25. HOUSEKEEPING SUPPLIES
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B25A_09
   B26_09
                   B26. HOUSEKEEPING SERVICES
   B26A_09
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_09
                   B27. GARDENING/YARD SUPPLIES
   B27A_09
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_09
                   B28. GARDEN/YARD SERVICES
   B28A_09
                   B28A. GARDEN/YARD SERVICES - PER
                   B29. CLOTHING AND APPAREL
   B29_09
   B29A_09
                  B29A. CLOTHING - PER
   B30_09
                   B30. PERSONAL CARE PRODUCTS/SERVICES
                  B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_09
   B31_09
                  B31. DRUGS OOP
   B31A_09
                  B31A. DRUGS OOP - PER
   B32_09
                  B32. HEALTH SERVICES
   B32A_09
                   B32A. HEALTH SERVICES - PER
   B33_09
                   B33. MEDICAL SUPPLIES
   B33A_09
                   B33A. MED SUPPLIES - PER
                   B34. TICKETS
   B34_09
                   B34A. TICKETS - PER
   B34A_09
   B35_09
                   B35. SPORTS EQUIPMENT
                   B35A. SPORTS EQUIPMENT - PER
   B35A_09
                   B36. HOBBIES/LEISURE EQUIPMENT
   B36_09
   B36A_09
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37_09
                  B37. FOOD/DRINK GROCERY
   B37A_09
                   B37A. FOOD/DRINK GROC - PER
                  B38. DINING OUT
   B38_09
   B38A 09
                  B38A. DINING OUT - PER
CAMS 2011:
   B11 11
                  B11. HEALTH INSURANCE
   B12_11
                   B12. TRIPS AND VACATIONS
   B15_11
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_11
                   B16. CONTRIBUTIONS
   B17_11
                   B17. GIFTS
   B20_11
                   B20. ELECTRICITY
   B20A_11
                   B20A. ELECTRICITY - PER
   B21_11
                   B21. WATER
                  B21A. WATER - PER
   B21A_11
   B22_11
                  B22. HEAT
   B22A_11
                  B22A. HEAT - PER
   B23_11
                  B23. PHONE/CABLE/INTERNET
                  B23A. PHONE/CABLE - PER
   B23A_11
   B25 11
                  B25. HOUSEKEEPING SUPPLIES
   B25A 11
                  B25A. HOUSEKEEPING SUPPLIES - PER
   B26_11
                  B26. HOUSEKEEPING SERVICES
                  B26A. HOUSEKEEPING SERVICES - PER
   B26A_11
                  B27. GARDENING/YARD SUPPLIES
   B27_11
   B27A_11
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_11
                   B28. GARDEN/YARD SERVICES
   B28A 11
                   B28A. GARDEN/YARD SERVICES - PER
   B29_11
                   B29. CLOTHING AND APPAREL
                   B29A. CLOTHING - PER
   B29A_11
                   B30. PERSONAL CARE PRODUCTS/SERVICES
   B30_11
                  B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_11
                  B31. DRUGS OOP
   B31_11
   B31A 11
                  B31A. DRUGS OOP - PER
                  B32. HEALTH SERVICES
   B32_11
   B32A_11
                  B32A. HEALTH SERVICES - PER
                  B33. MEDICAL SUPPLIES
   В33 11
```

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B33A_11
                  B33A. MED SUPPLIES - PER
                   B34. TICKETS
   B34_11
    B34A_11
                   B34A. TICKETS - PER
   B35_11
                   B35. SPORTS EQUIPMENT
   B35A_11
                   B35A. SPORTS EQUIPMENT - PER
                   B36. HOBBIES/LEISURE EQUIPMENT
   B36_11
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B36A_11
                  B37. FOOD/DRINK GROCERY
   B37_11
                  B37A. FOOD/DRINK GROC - PER
   B37A_11
   B38_11
                  B38. DINING OUT
   B38A_11
                  B38A. DINING OUT - PER
CAMS 2013:
   B11_13
                   B11. HEALTH INSURANCE
   B12 13
                   B12. TRIPS AND VACATIONS
   B15_13
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_13
                   B16. CONTRIBUTIONS
   B17_13
                   B17. GIFTS
   B20_13
                   B20. ELECTRICITY
                   B20A. ELECTRICITY - PER
   B20A_13
   B21_13
                   B21. WATER
   B21A_13
                   B21A. WATER - PER
                   B22. HEAT
   B22_13
                   B22A. HEAT - PER
   B22A_13
   B23_13
                   B23. PHONE/CABLE/INTERNET
   B23A_13
                  B23A. PHONE/CABLE - PER
   B25_13
                  B25. HOUSEKEEPING SUPPLIES
   B25A_13
                  B25A. HOUSEKEEPING SUPPLIES - PER
   B26 13
                  B26. HOUSEKEEPING SERVICES
   B26A_13
                  B26A. HOUSEKEEPING SERVICES - PER
   B27_13
                  B27. GARDENING/YARD SUPPLIES
                   B27A. GARDEN/YARD SUPPLIES - PER
   B27A_13
   B28_13
                   B28. GARDEN/YARD SERVICES
   B28A_13
                   B28A. GARDEN/YARD SERVICES - PER
                   B29. CLOTHING AND APPAREL
   B29_13
   B29A_13
                   B29A. CLOTHING - PER
   B30 13
                   B30. PERSONAL CARE PRODUCTS/SERVICES
   B30A_13
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B31_13
                   B31. DRUGS OOP
   B31A_13
                  B31A. DRUGS OOP - PER
   B32_13
                  B32. HEALTH SERVICES
   B32A_13
                  B32A. HEALTH SERVICES - PER
                  B33. MEDICAL SUPPLIES
   B33_13
                  B33A. MED SUPPLIES - PER
   B33A 13
   B34_13
                  B34. TICKETS
   B34A_13
                  B34A. TICKETS - PER
                  B35. SPORTS EQUIPMENT
   B35_13
                   B35A. SPORTS EQUIPMENT - PER
   B35A_13
   B36_13
                   B36. HOBBIES/LEISURE EQUIPMENT
   B36A_13
                   B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37 13
                   B37. FOOD/DRINK GROCERY
   B37A_13
                   B37A. FOOD/DRINK GROC - PER
   B38 13
                   B38. DINING OUT
                  B38A. DINING OUT - PER
   B38A_13
CAMS 2015:
   B11_15
                  B11. HEALTH INSURANCE
   B12 15
                  B12. TRIPS AND VACATIONS
                  B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B15_15
   B16_15
                  B16. CONTRIBUTIONS
   B17 15
                  B17. GIFTS
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B20_15
                    B20. ELECTRICITY
                    B20A. ELECTRICITY - PER
   B20A_15
    B21_15
                    B21. WATER
   B21A_15
                    B21A. WATER - PER
   B22_15
                    B22. HEAT
                    B22A. HEAT - PER
   B22A_15
   B23_15
                    B23. PHONE/CABLE/INTERNET
   B23A_15
                    B23A. PHONE/CABLE - PER
                   B25. HOUSEKEEPING SUPPLIES
   B25_15
   B25A_15
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_15
                    B26. HOUSEKEEPING SERVICES
                   B26A. HOUSEKEEPING SERVICES - PER
   B26A_15
   B27_15
                   B27. GARDENING/YARD SUPPLIES
   B27A_15
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_15
                   B28. GARDEN/YARD SERVICES
   B28A_15
                   B28A. GARDEN/YARD SERVICES - PER
   B29_15
                    B29. CLOTHING AND APPAREL
   B29A_15
                    B29A. CLOTHING - PER
                    B30. PERSONAL CARE PRODUCTS/SERVICES
   B30_15
   B30A_15
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B31_15
                   B31. DRUGS OOP
                   B31A. DRUGS OOP - PER
   B31A_15
                   B32. HEALTH SERVICES
   B32_15
                   B32A. HEALTH SERVICES - PER
   B32A_15
   B33_15
                   B33. MEDICAL SUPPLIES
   B33A_15
                   B33A. MED SUPPLIES - PER
                   B34. TICKETS
   B34_15
                   B34A. TICKETS - PER
   B34A 15
                   B35. SPORTS EQUIPMENT
   B35_15
   B35A_15
                   B35A. SPORTS EQUIPMENT - PER
   B36_15
                    B36. HOBBIES/LEISURE EQUIPMENT
   B36A_15
                    B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37_15
                    B37. FOOD/DRINK GROCERY
   B37A_15
                    B37A. FOOD/DRINK GROC - PER
   B38_15
                    B38. DINING OUT
   B38A_15
                   B38A. DINING OUT - PER
CAMS 2017:
   B11_17
                   B11. HEALTH INSURANCE
   B12_17
                    B12. TRIPS AND VACATIONS
   B15_17
                    B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_17
                    B16. CONTRIBUTIONS
                    B17. GIFTS
   B17_17
   B20 17
                   B20. ELECTRICITY
   B20A 17
                   B20A. ELECTRICITY - PER
                   B21. WATER
   B21 17
                   B21A. WATER - PER
   B21A_17
                   B22. HEAT
   B22_17
   B22A_17
                    B22A. HEAT - PER
   B23_17
                    B23. PHONE/CABLE/INTERNET
   B23A 17
                    B23A. PHONE/CABLE - PER
   B25_17
                   B25. HOUSEKEEPING SUPPLIES
   B25A_17
                    B25A. HOUSEKEEPING SUPPLIES - PER
                   B26. HOUSEKEEPING SERVICES
   B26_17
                    B26A. HOUSEKEEPING SERVICES - PER
   B26A_17
   B27_17
                   B27. GARDENING/YARD SUPPLIES
   B27A 17
                    B27A. GARDEN/YARD SUPPLIES - PER
                   B28. GARDEN/YARD SERVICES
   B28_17
   B28A_17
                   B28A. GARDEN/YARD SERVICES - PER
   B29_17
                   B29. CLOTHING AND APPAREL
```

B29A_17	B29A. CLOTHING - PER
B30_17	B30. PERSONAL CARE PRODUCTS/SERVICES
B30A_17	B30A. PERSONAL CARE PROD/SERVICES - PER
B31_17	B31. DRUGS OOP
B31A_17	B31A. DRUGS OOP - PER
B32_17	B32. HEALTH SERVICES
B32A_17	B32A. HEALTH SERVICES - PER
B33_17	B33. MEDICAL SUPPLIES
B33A_17	B33A. MED SUPPLIES - PER
B34_17	B34. TICKETS
B34A_17	B34A. TICKETS - PER
B35_17	B35. SPORTS EQUIPMENT
B35A_17	B35A. SPORTS EQUIPMENT - PER
B36_17	B36. HOBBIES/LEISURE EQUIPMENT
B36A_17	B36A. HOBBIES/LEISURE EQUIPMENT - PER
B37_17	B37. FOOD/DRINK GROCERY
B37A_17	B37A. FOOD/DRINK GROC - PER
	B38. DINING OUT
B38A_17	B38A. DINING OUT - PER

# 2.10 Total Transportation Spending

Wave	Variable	Label	Type
5	H5CTRANSS	H5CTRANSS:W5 CAMS: Total Hhold Transportation Spending	Cont
6	H6CTRANSS	H6CTRANSS:W6 CAMS: Total Hhold Transportation Spending	Cont
7	H7CTRANSS	H7CTRANSS:W7 CAMS: Total Hhold Transportation Spending	Cont
8	H8CTRANSS	H8CTRANSS: W8 CAMS: Total Hhold Transportation Spending	Cont
9	H9CTRANSS	H9CTRANSS: W9 CAMS: Total Hhold Transportation Spending	Cont
10	H10CTRANSS	H10CTRANSS:W10 CAMS: Total Hhold Transportation Spending	Cont
11	H11CTRANSS	H11CTRANSS:W11 CAMS: Total Hhold Transportation Spending	Cont
12	H12CTRANSS	H12CTRANSS:W12 CAMS: Total Hhold Transportation Spending	Cont
13	H13CTRANSS	H13CTRANSS:W13 CAMS: Total Hhold Transportation Spending	Cont
5	H5CTRANSSF	H5CTRANSSF:W5 CAMSFlag: Total HHold Transportation Spending	Categ
6	H6CTRANSSF	H6CTRANSSF:W6 CAMSFlag: Total HHold Transportation Spending	Categ
7	H7CTRANSSF	H7CTRANSSF:W7 CAMSFlag: Total HHold Transportation Spending	Categ
8	H8CTRANSSF	H8CTRANSSF: W8 CAMSFlag: Total HHold Transportation Spending	Categ
9	H9CTRANSSF	H9CTRANSSF:W9 CAMSFlag: Total HHold Transportation Spending	Categ
10	H10CTRANSSF	H10CTRANSSF:W10 CAMSFlag: Total HHold Transportation Spending	Categ
11	H11CTRANSSF	H11CTRANSSF:W11 CAMSFlag: Total HHold Transportation Spending	Categ
12	H12CTRANSSF	H12CTRANSSF:W12 CAMSFlag: Total HHold Transportation Spending	Categ
13	H13CTRANSSF	H13CTRANSSF:W13 CAMSFlag: Total HHold Transportation Spending	Categ

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CTRANSS	3789	8164.41	11975.70	0.0	116031.0
H6CTRANSS	3224	8459.58	13428.89	0.0	164907.0
H7CTRANSS	3832	9131.25	13855.32	0.0	146360.0
H8CTRANSS	3704	8277.37	12137.37	0.0	130741.0
H9CTRANSS	3550	7003.04	9879.37	0.0	92428.0
H10CTRANSS	4319	7957.60	11477.63	0.0	91900.0
H11CTRANSS	4017	8391.66	13276.19	0.0	201000.0
H12CTRANSS	3689	8363.73	13286.87	0.0	113900.0
H13CTRANSS	3454	8742.34	13812.02	0.0	123099.0
H5CTRANSSF	3789	0.47	0.94	0.0	4.0
H6CTRANSSF	3224	0.44	0.95	0.0	4.0
H7CTRANSSF	3832	0.45	0.98	0.0	4.0
H8CTRANSSF	3704	0.37	0.89	0.0	4.0
H9CTRANSSF	3550	0.35	0.85	0.0	4.0
H10CTRANSSF	4319	0.35	0.86	0.0	4.0
H11CTRANSSF	4017	0.36	0.87	0.0	4.0
H12CTRANSSF	3689	0.32	0.82	0.0	4.0
H13CTRANSSF	3454	0.33	0.83	0.0	4.0

HwCTRANSSF: CAMSFlag: Total HHold Transportation Spending											
Value	ı	w1	w2	w3	w4	w5	w6	w7	w8	₩9	w10
.T Resp <10 cat						77	30	47	34	37	51
0. no winsor or imp						2981	2606	3087	3097	2980	3651
1. winsor only						33	41	40	40	36	41
2. mean/median imp only						646	420	487	399	414	473
3. zero imp only						68	106	146	128	86	102
4. imp & winsor	1					61	51	72	40	34	52
Value	I	w11	w12	w13							
.T Resp <10 cat		50	48	52							
0. no winsor or imp		3375	3155	2939							
1. winsor only		38	33	38							
2. mean/median imp only		458	383	378							
3. zero imp only		97	80	54							
4. imp & winsor	ĺ	49	38	45							

### **General Comments**

Spending measures are reported in nominal dollars. Missing values in vehicle insurance, vehicle maintenance, car payment or vehicle financing, and gasoline are imputed using the method described in the section titled "1.10 Imputation and Cleaning of Spending Variables." Missing values in a component of auto purchases are imputed using the method described in "1.11 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 13 which asks about 2017 spending.

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

#### **How Constructed**

HwCTRANSS is the sum of all of the spending in the household on up to three automobile purchases, vehicle insurance, vehicle maintenance, car payment or vehicle financing, and gasoline. 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 "1.11 Imputation of Auto Purchases" for more details.

HwCTRANSSF is a flag that indicates whether any of the components of transportation spending are imputed or winsorized. Please see "1.10 Imputation and Cleaning of Spending Variables" for more information.

### **Cross Wave Differences in Original CAMS Data**

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

```
CAMS 2001:
                   B1. PURCHASE/LEASE AUTO
   B1_01
   B1A 3 01
                   B1A_3. AUTO YEAR - 1
                   B1A_4. AUTO PRICE - 1
   B1A_4_01
   B1B_3_01
                   B1B_3. AUTO YEAR - 2
                   B1B_4. AUTO PRICE - 2
   B1B_4_01
   B1C_3_01
                   B1C_3. AUTO YEAR - 3
                   B1C_4. AUTO PRICE - 3
   B1C_4_01
   B15_01
                  B15. AUTO FINANCE CHRG
   B15A_01
                  B15A. AUTO FINANCE - PER
                  B16. AUTO INSURANCE
   B16_01
                  B16A. AUTO INSUR - PER
   B16A_01
                   B23. GASOLINE
   B23_01
   B23A_01
                   B23A. GASOLINE - PER
   B24_01
                   B24. VEHICLE SERVICE
                   B24A. VEHICLE SERVICE - PER
   B24A_01
CAMS 2003:
   B1_03
                   B1. PURCHASE/LEASE AUTO
   B1A3_03
                   B1A3. AUTO YEAR - 1
   B1A4_03
                   B1A4. AUTO PRICE - 1
   B1A5_03
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_03
                   B1B3. AUTO YEAR - 2
   B1B4_03
                   B1B4. AUTO PRICE - 2
                  B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_03
   B1C3 03
                  B1C3. AUTO YEAR - 3
                   B1C4. AUTO PRICE - 3
   B1C4_03
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_03
                   B9. VEHICLE INSURANCE
   B9_03
                   B10. VEHICLE MAINTENANCE
   B10_03
   B19_03
                   B19. CAR PAYMENTS INTEREST/PRINCIPAL
   B19A_03
                   B19A. CAR PAYMENTS - PER
                   B38. GASOLINE
   B38_03
   B38A 03
                   B38A. GASOLINE - PER
CAMS 2005:
   B1_05
                   B1. PURCHASE/LEASE AUTO
   B1A3_05
                   B1A3. AUTO YEAR - 1
   B1A4_05
                   B1A4. AUTO PRICE - 1
   B1A5_05
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_05
                   B1B3. AUTO YEAR - 2
   B1B4 05
                   B1B4. AUTO PRICE - 2
   B1B5_05
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_05
                   B1C3. AUTO YEAR - 3
   B1C4_05
                   B1C4. AUTO PRICE - 3
   B1C5_05
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_05
                   B9. VEHICLE INSURANCE
   B10_05
                   B10. VEHICLE MAINTENANCE
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24_05
   B24A_05
                   B24A. CAR PAYMENTS - PER
   B39_05
                   B39. GASOLINE
                   B39A. GASOLINE - PER
   B39A_05
CAMS 2007:
                   B1. PURCHASE/LEASE AUTO
   B1_07
   B1A3_07
                   B1A3. AUTO YEAR - 1
   B1A4_07
                   B1A4. AUTO PRICE - 1
   B1A5 07
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3 07
                  B1B3. AUTO YEAR - 2
                  B1B4. AUTO PRICE - 2
   B1B4 07
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_07
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B1C3. AUTO YEAR - 3
   B1C3_07
                    B1C4. AUTO PRICE - 3
   B1C4_07
   B1C5_07
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_07
                    B9. VEHICLE INSURANCE
   B10_07
                    B10. VEHICLE MAINTENANCE
                    B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24_07
                    B24A. CAR PAYMENTS - PER
   B24A_07
                    B39. GASOLINE
   B39_07
                   B39A. GASOLINE - PER
   B39A_07
CAMS 2009:
   B1_09
                    B1. PURCHASE/LEASE AUTO
                   B1A3. AUTO YEAR - 1
   B1A3_09
   B1A4_09
                    B1A4. AUTO PRICE - 1
   B1A5_09
                    B1A5. AUTO/TRUCK NEW OR USED - 1
                    B1B3. AUTO YEAR - 2
   B1B3_09
                    B1B4. AUTO PRICE - 2
   B1B4_09
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_09
   B1C3_09
                    B1C3. AUTO YEAR - 3
                    B1C4. AUTO PRICE - 3
   B1C4_09
   B1C5_09
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   в9 09
                   B9. VEHICLE INSURANCE
                   B10. VEHICLE MAINTENANCE
   B10_09
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24_09
                   B24A. CAR PAYMENTS - PER
   B24A_09
   B39_09
                   B39. GASOLINE
   B39A_09
                   B39A. GASOLINE - PER
CAMS 2011:
   B1 11
                    B1. PURCHASE/LEASE AUTO
                   B1A3. AUTO YEAR - 1
   B1A3_11
                    B1A4. AUTO PRICE - 1
   B1A4_11
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_11
                    B1B3. AUTO YEAR - 2
   B1B3_11
   B1B4_11
                    B1B4. AUTO PRICE - 2
   B1B5_11
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_11
                    B1C3. AUTO YEAR - 3
   B1C4_11
                    B1C4. AUTO PRICE - 3
   B1C5_11
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_11
                   B9. VEHICLE INSURANCE
   B10_11
                   B10. VEHICLE MAINTENANCE
   B24_11
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_11
                    B24A. CAR PAYMENTS - PER
                   B39. GASOLINE
   B39_11
   B39A 11
                   B39A. GASOLINE - PER
CAMS 2013:
                    B1. PURCHASE/LEASE AUTO
   B1 13
                    B1A3. AUTO YEAR - 1
   B1A3_13
                    B1A4. AUTO PRICE - 1
   B1A4_13
   B1A5_13
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_13
                    B1B3. AUTO YEAR - 2
   B1B4 13
                    B1B4. AUTO PRICE - 2
   B1B5_13
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_13
                   B1C3. AUTO YEAR - 3
                   B1C4. AUTO PRICE - 3
   B1C4_13
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_13
   B9_13
                   B9. VEHICLE INSURANCE
   B10_13
                   B10. VEHICLE MAINTENANCE
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24_13
   B24A_13
                   B24A. CAR PAYMENTS - PER
   В39 13
                   B39. GASOLINE
```

```
B39A. GASOLINE - PER
   B39A_13
CAMS 2015:
   B1_15
                    B1. PURCHASE/LEASE AUTO
   B1A3_15
                   B1A3. AUTO YEAR - 1
   B1A4_15
                   B1A4. AUTO PRICE - 1
   B1A5_15
                    B1A5. AUTO/TRUCK NEW OR USED - 1
                   B1B3. AUTO YEAR - 2
   B1B3_15
                   B1B4. AUTO PRICE - 2
   B1B4_15
   B1B5_15
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_15
                   B1C3. AUTO YEAR - 3
   B1C4_15
                   B1C4. AUTO PRICE - 3
   B1C5_15
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_15
                   B9. VEHICLE INSURANCE
   B10_15
                   B10. VEHICLE MAINTENANCE
   B24_15
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_15
                   B24A. CAR PAYMENTS - PER
                    B39. GASOLINE
   B39_15
   B39A_15
                   B39A. GASOLINE - PER
CAMS 2017:
                   B1. PURCHASE/LEASE AUTO
   B1_17
   B1A3_17
                   B1A3. AUTO YEAR - 1
   B1A4_17
                   B1A4. AUTO PRICE - 1
   B1A5_17
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_17
                   B1B3. AUTO YEAR - 2
   B1B4_17
                   B1B4. AUTO PRICE - 2
   B1B5_17
                   B1B5. AUTO/TRUCK NEW OR USED - 2
                   B1C3. AUTO YEAR - 3
   B1C3_17
                   B1C4. AUTO PRICE - 3
   B1C4_17
   B1C5_17
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_17
                   B9. VEHICLE INSURANCE
                   B10. VEHICLE MAINTENANCE
   B10_17
   B24_17
                    B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_17
                   B24A. CAR PAYMENTS - PER
   B39_17
                   B39. GASOLINE
   B39A_17
                   B39A. GASOLINE - PER
```

# 2.11 Total Housing Spending

Wave	Variable	Label	Type
5	H5CHOUSS	H5CHOUSS:W5 CAMS: Total Hhold Housing Spending	Cont
6	H6CHOUSS	H6CHOUSS:W6 CAMS: Total Hhold Housing Spending	Cont
7	H7CHOUSS	H7CHOUSS:W7 CAMS: Total Hhold Housing Spending	Cont
8	H8CHOUSS	H8CHOUSS: W8 CAMS: Total Hhold Housing Spending	Cont
9	H9CHOUSS	H9CHOUSS: W9 CAMS: Total Hhold Housing Spending	Cont
10	H10CHOUSS	H10CHOUSS:W10 CAMS: Total Hhold Housing Spending	Cont
11	H11CHOUSS	H11CHOUSS:W11 CAMS: Total Hhold Housing Spending	Cont
12	H12CHOUSS	H12CHOUSS:W12 CAMS: Total Hhold Housing Spending	Cont
13	H13CHOUSS	H13CHOUSS:W13 CAMS: Total Hhold Housing Spending	Cont
5	H5CHOUSSF	H5CHOUSSF:W5 CAMSFlag: Total HHold Housing Spending	Categ
6	H6CHOUSSF	H6CHOUSSF:W6 CAMSFlag: Total HHold Housing Spending	Categ
7	H7CHOUSSF	H7CHOUSSF:W7 CAMSFlag: Total HHold Housing Spending	Categ
8	H8CHOUSSF	H8CHOUSSF:W8 CAMSFlag: Total HHold Housing Spending	Categ
9	H9CHOUSSF	H9CHOUSSF:W9 CAMSFlag: Total HHold Housing Spending	Categ
10	H10CHOUSSF	H10CHOUSSF:W10 CAMSFlag: Total HHold Housing Spending	Categ
11	H11CHOUSSF	H11CHOUSSF:W11 CAMSFlag: Total HHold Housing Spending	Categ
12	H12CHOUSSF	H12CHOUSSF:W12 CAMSFlag: Total HHold Housing Spending	Categ
13	H13CHOUSSF	H13CHOUSSF:W13 CAMSFlag: Total HHold Housing Spending	Categ

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CHOUSS	3789	8112.18	13976.18	0.0	259212.0
H6CHOUSS	3224	7921.27	10831.65	0.0	141669.0
H7CHOUSS	3832	8043.11	9120.14	0.0	107609.0
H8CHOUSS	3704	8943.95	11861.27	0.0	220196.0
H9CHOUSS	3550	8489.92	9579.23	0.0	91200.0
H10CHOUSS	4319	9008.87	10551.47	0.0	122935.0
H11CHOUSS	4017	9084.29	10115.38	0.0	100325.0
H12CHOUSS	3689	9578.58	11922.02	0.0	112750.0
H13CHOUSS	3454	10222.30	12519.59	0.0	134617.0
H5CHOUSSF	3789	0.45	0.83	0.0	3.0
H6CHOUSSF	3224	0.46	0.84	0.0	3.0
H7CHOUSSF	3832	0.41	0.80	0.0	3.0
H8CHOUSSF	3704	0.35	0.76	0.0	3.0
H9CHOUSSF	3550	0.36	0.76	0.0	3.0
H10CHOUSSF	4319	0.38	0.78	0.0	3.0
H11CHOUSSF	4017	0.40	0.80	0.0	3.0
H12CHOUSSF	3689	0.37	0.77	0.0	3.0
H13CHOUSSF	3454	0.38	0.79	0.0	3.0

	Hw	CHOUSSF:	CAMSFla	ıg: Total	HHold H	Housing S	Spending				
Value	I	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T Resp <10 cat						77	30	47	34	37	51
0. no winsor or imp	1					2935	2472	3016	3039	2892	3479
1. winsor only	1					33	46	48	41	48	43
2. mean imp only						809	694	765	612	602	788
3. imp & winsor	I					12	12	3	12	8	9
Value	1	w11	w12	w13							
.T Resp <10 cat		50	48	52							
0. no winsor or imp	1	3211	2998	2785							
1. winsor only	i	37	41	34							
2. mean imp only	i	757	643	614							
3. imp & winsor	i	12	7	21							

#### **General Comments**

Spending measures are reported in nominal dollars. When a spending component is missing it is imputed using the method described in the section titled "1.10 Imputation and Cleaning 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 13 which asks about 2017 spending.

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

### **How Constructed**

HwCHOUSS is the sum of all of the spending on housing, including mortgage interest, rent, home/renters insurance, property taxes, and home repair and maintenance (supplies and services). The spending categories vary by wave. Mortgage payments include only interest. Please refer to "1.7 Components of Household Spending and Consumption" for details on the calculation of mortgage interest.

HwCHOUSSF is a flag that indicates whether any components are imputed or winsorized. Please see "1.10 Imputation and Cleaning of Spending Variables" for more information.

## **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 2001:
                   B7. MORTGAGE
   B7_01
   B7A_01
                   B7A. MORTAGAGE - PER
   B8_01
                   B8. HOME/RENT INS.
   B8A_01
                  B8A. HOME/RENT INS - PER
                  B9. PROPERTY TAX
   B9_01
   B9A_01
                  B9A. PROPERTY TAX - PER
   B10_01
                  B10. RENT
   B10A_01
                  B10A. RENT - PER
   B19_01
                  B19. HOME MAINTAIN
                  B19A. HOME MAINTAIN - PER
   B19A_01
CAMS 2003:
   B7_03
                  B7. HOME/RENTERS INSURANCE
   B8_03
                   B8. PROPERTY TAXES
   B13_03
                   B13. MORTGAGE
                   B13A. MORTAGAGE - PER
   B13A_03
   B14_03
                   B14. RENT
   B14A_03
                   B14A. RENT - PER
   B24_03
                   B24. HOME REPAIRS/MAINTENANCE DIY
   B24A_03
                   B24A. HOME REPAIRS/MAINTENANCE DIY - PER
   B25_03
                   B25. HOME REPAIRS/MAINTENANCE SERVICES
   B25A_03
                  B25A. HOME REPAIRS/MAINTENANCE SERVICE - PER
CAMS 2005:
   B7_05
                  B7. HOME/RENTERS INSURANCE
   B8 05
                  B8. PROPERTY TAXES
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B13_05
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_05
   B18_05
                   B18. MORTGAGE
                   B18A. MORTAGAGE - PER
   B18A_05
   B19_05
                   B19. RENT
   B19A_05
                   B19A. RENT - PER
CAMS 2007:
   B7 07
                   B7. HOME/RENTERS INSURANCE
   B8_07
                   B8. PROPERTY TAXES
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B13_07
                  B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_07
   B18_07
                  B18. MORTGAGE
                   B18A. MORTAGAGE - PER
   B18A_07
   B19_07
                  B19. RENT
   B19A 07
                  B19A. RENT - PER
CAMS 2009:
   B7 09
                  B7. HOME/RENTERS INSURANCE
   B8 09
                   B8. PROPERTY TAXES
   B13_09
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_09
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B18_09
                   B18. MORTGAGE
                   B18A. MORTAGAGE - PER
   B18A_09
   B19_09
                   B19. RENT
                  B19A. RENT - PER
   B19A_09
CAMS 2011:
                  B7. HOME/RENTERS INSURANCE
   B7_11
   B8_11
                  B8. PROPERTY TAXES
   B13_11
                  B13. HOME REPAIRS/MAINTENANCE DIY
   B14_11
                  B14. HOME REPAIRS/MAINTENANCE SERVICES
   B18 11
                  B18. MORTGAGE
   B18A 11
                  B18A. MORTAGAGE - PER
   B19 11
                  B19. RENT
                   B19A. RENT - PER
   B19A_11
```

```
CAMS 2013:
   B7_13
                  B7. HOME/RENTERS INSURANCE
   B8_13
                   B8. PROPERTY TAXES
   B13_13
                   B13. HOME REPAIRS/MAINTENANCE DIY
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_13
   B18_13
                   B18. MORTGAGE
                   B18A. MORTGAGE - PER
   B18A_13
                  B19. RENT
   B19_13
                  B19A. RENT - PER
   B19A_13
CAMS 2015:
   C2B_15
                   C2B. OWN OR RENT HOUSE
   B7_15
                  B7. HOME/RENTERS INSURANCE
   B8_15
                   B8. PROPERTY TAXES
   B13_15
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_15
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B18_15
                   B18. MORTGAGE
                   B18A. MORTGAGE - PER
   B18A_15
   B19_15
                   B19. RENT
   B19A_15
                   B19A. RENT - PER
CAMS 2017:
   в7_17
                   B7. HOME/RENTERS INSURANCE
   B8_17
                   B8. PROPERTY TAXES
   B13_17
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_17
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B18_17
                  B18. MORTGAGE
   B18A_17
                   B18A. MORTGAGE - PER
   B19_17
                  B19. RENT
   B19A_17
                  B19A. RENT - PER
```

## 2.12 Car Purchases and Payments

Wave	Variable	Label	Type
5	H5CAUTOALL	H5CAUTOALL:W5 CAMS: Total HHold Auto Spending	Cont
6	H6CAUTOALL	H6CAUTOALL:W6 CAMS: Total HHold Auto Spending	Cont
7	H7CAUTOALL	H7CAUTOALL:W7 CAMS: Total HHold Auto Spending	Cont
8	H8CAUTOALL	H8CAUTOALL: W8 CAMS: Total HHold Auto Spending	Cont
9	H9CAUTOALL	H9CAUTOALL:W9 CAMS: Total HHold Auto Spending	Cont
10	H10CAUTOALL	H10CAUTOALL:W10 CAMS: Total HHold Auto Spending	Cont
11	H11CAUTOALL	H11CAUTOALL:W11 CAMS: Total HHold Auto Spending	Cont
12	H12CAUTOALL	H12CAUTOALL:W12 CAMS: Total HHold Auto Spending	Cont
13	H13CAUTOALL	H13CAUTOALL:W13 CAMS: Total HHold Auto Spending	Cont
5	H5CVHCLFIN	H5CVHCLFIN:W5 CAMS: Car Interest Payments	Cont
6	H6CCARPAY	H6CCARPAY:W6 CAMS: Car Interest + Principal Payments	Cont
7	H7CCARPAY	H7CCARPAY:W7 CAMS: Car Interest + Principal Payments	Cont
8	H8CCARPAY	H8CCARPAY: W8 CAMS: Car Interest + Principal Payments	Cont
9	H9CCARPAY	H9CCARPAY:W9 CAMS: Car Interest + Principal Payments	Cont
10	H10CCARPAY	H10CCARPAY:W10 CAMS: Car Interest + Principal Payments	Cont
11	H11CCARPAY	H11CCARPAY:W11 CAMS: Car Interest + Principal Payments	Cont
12	H12CCARPAY	H12CCARPAY:W12 CAMS: Car Interest + Principal Payments	Cont
13	H13CCARPAY	H13CCARPAY:W13 CAMS: Car Interest + Principal Payments	Cont

# **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
_					
H5CAUTOALL	3789	4012.06	9815.52	0.0	67000.0
H6CAUTOALL	3224	3549.59	9430.89	0.0	74500.0
H7CAUTOALL	3832	4008.53	11005.34	0.0	113000.0
H8CAUTOALL	3704	3154.90	8859.12	0.0	60000.0
H9CAUTOALL	3550	2585.69	7667.49	0.0	58000.0
H10CAUTOALL	4319	2792.70	8667.03	0.0	66000.0
H11CAUTOALL	4017	3245.21	9893.22	0.0	100000.0
H12CAUTOALL	3689	3436.66	10333.99	0.0	79000.0
H13CAUTOALL	3454	3509.56	10544.61	0.0	80000.0
H5CVHCLFIN	3789	548.16	1603.22	0.0	18000.0
H6CCARPAY	3224	1994.10	6726.26	0.0	100800.0
H7CCARPAY	3832	1629.48	3634.45	0.0	46296.0
H8CCARPAY	3704	1708.69	4985.49	0.0	72000.0
H9CCARPAY	3550	1341.20	3245.02	0.0	43200.0
H10CCARPAY	4319	1460.71	3988.04	0.0	60000.0
H11CCARPAY	4017	1580.66	5027.56	0.0	77760.0
H12CCARPAY	3689	1650.61	4502.79	0.0	60000.0
H13CCARPAY	3454	1984.95	5484.82	0.0	82800.0

## **General Comments**

Spending measures are reported in nominal dollars. Missing values in vehicle finance charges and car payments are imputed using the method described in the section titled "1.10 Imputation and Cleaning of Spending Variables." When a component of auto purchases is missing it is imputed using the method described in "1.11 Imputation of Auto Purchases."

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 13 which asks about 2017 spending. The CAMS Respondent reports spending for all members of his/her household.

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 "1.6 Spending versus Consumption" for more details.

#### **How Constructed**

HwCAUTOALL 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 "1.11 Imputation of Auto Purchases" for more information.

H5CVHCLFIN is the car interest payment amount from CAMS 2001 and can be subtracted from H5CTOTS. HwCCARPAY is the car interest and principal payment amount and can be subtracted from HwCTOTS for Waves 6 onward.

```
CAMS 2001:
                    B1. PURCHASE/LEASE AUTO
   B1_01
   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. AUTO PRICE - 3
    B1C_4_01
   B15_01
                    B15. AUTO FINANCE CHRG
                    B15A. AUTO FINANCE - PER
   B15A_01
CAMS 2003:
   B1_03
                    B1. PURCHASE/LEASE AUTO
   B1A3_03
                    B1A3. AUTO YEAR - 1
   B1A4_03
                    B1A4. AUTO PRICE - 1
   B1A5_03
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_03
                    B1B3. AUTO YEAR - 2
    B1B4_03
                    B1B4. AUTO PRICE - 2
    B1B5_03
                    B1B5. AUTO/TRUCK NEW OR USED - 2
    B1C3 03
                    B1C3. AUTO YEAR - 3
   B1C4_03
                    B1C4. AUTO PRICE - 3
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_03
   B19_03
                    B19. CAR PAYMENTS INTEREST/PRINCIPAL
   B19A_03
                    B19A. CAR PAYMENTS - PER
```

```
CAMS 2005:
                    B1. PURCHASE/LEASE AUTO
   B1_05
   B1A3_05
                    B1A3. AUTO YEAR - 1
   B1A4_05
                    B1A4. AUTO PRICE - 1
   B1A5_05
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_05
                    B1B3. AUTO YEAR - 2
   B1B4_05
                   B1B4. AUTO PRICE - 2
   B1B5_05
                   B1B5. AUTO/TRUCK NEW OR USED - 2
                   B1C3. AUTO YEAR - 3
   B1C3_05
   B1C4_05
                   B1C4. AUTO PRICE - 3
   B1C5_05
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B24_05
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_05
                   B24A. CAR PAYMENTS - PER
CAMS 2007:
   B1_07
                   B1. PURCHASE/LEASE AUTO
   B1A3_07
                   B1A3. AUTO YEAR - 1
   B1A4_07
                    B1A4. AUTO PRICE - 1
   B1A5_07
                   B1A5. AUTO/TRUCK NEW OR USED - 1
                   B1B3. AUTO YEAR - 2
   B1B3_07
   B1B4_07
                   B1B4. AUTO PRICE - 2
   B1B5_07
                   B1B5. AUTO/TRUCK NEW OR USED - 2
                   B1C3. AUTO YEAR - 3
   B1C3_07
                   B1C4. AUTO PRICE - 3
   B1C4_07
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_07
   B24_07
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_07
                   B24A. CAR PAYMENTS - PER
CAMS 2009:
   B1 09
                   B1. PURCHASE/LEASE AUTO
                   B1A3. AUTO YEAR - 1
   B1A3_09
                   B1A4. AUTO PRICE - 1
   B1A4_09
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_09
                    B1B3. AUTO YEAR - 2
   B1B3_09
   B1B4_09
                    B1B4. AUTO PRICE - 2
   B1B5_09
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_09
                    B1C3. AUTO YEAR - 3
   B1C4_09
                   B1C4. AUTO PRICE - 3
   B1C5_09
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B24_09
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_09
                   B24A. CAR PAYMENTS - PER
CAMS 2011:
   B1_11
                   B1. PURCHASE/LEASE AUTO
                   B1A3. AUTO YEAR - 1
   B1A3_11
   B1A4 11
                   B1A4. AUTO PRICE - 1
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5 11
   B1B3_11
                   B1B3. AUTO YEAR - 2
                   B1B4. AUTO PRICE - 2
   B1B4_11
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_11
   B1C3_11
                   B1C3. AUTO YEAR - 3
   B1C4_11
                   B1C4. AUTO PRICE - 3
   B1C5 11
                   B1C5. AUTO/TRUCK NEW OR USED - 3
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24_11
   B24A 11
                   B24A. CAR PAYMENTS - PER
CAMS 2013:
                   B1. PURCHASE/LEASE AUTO
   B1_13
   B1A3_13
                   B1A3. AUTO YEAR - 1
   B1A4_13
                   B1A4. AUTO PRICE - 1
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_13
   B1B3_13
                   B1B3. AUTO YEAR - 2
   B1B4 13
                   B1B4. AUTO PRICE - 2
```

```
B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_13
   B1C3_13
                   B1C3. AUTO YEAR - 3
   B1C4_13
                    B1C4. AUTO PRICE - 3
   B1C5_13
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B24_13
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_13
                   B24A. CAR PAYMENTS - PER
CAMS 2015:
                   B1. PURCHASE/LEASE AUTO
   B1_15
   B1A3_15
                   B1A3. AUTO YEAR - 1
   B1A4_15
                   B1A4. AUTO PRICE - 1
   B1A5_15
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_15
                   B1B3. AUTO YEAR - 2
   B1B4_15
                   B1B4. AUTO PRICE - 2
   B1B5_15
                   B1B5. AUTO/TRUCK NEW OR USED - 2
                   B1C3. AUTO YEAR - 3
   B1C3_15
                   B1C4. AUTO PRICE - 3
   B1C4_15
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_15
   B24_15
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24A_15
                   B24A. CAR PAYMENTS - PER
CAMS 2017:
   B1_17
                   B1. PURCHASE/LEASE AUTO
   B1A3_17
                   B1A3. AUTO YEAR - 1
   B1A4_17
                   B1A4. AUTO PRICE - 1
   B1A5_17
                   B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_17
                   B1B3. AUTO YEAR - 2
   B1B4_17
                   B1B4. AUTO PRICE - 2
                   B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_17
                   B1C3. AUTO YEAR - 3
   B1C3_17
                   B1C4. AUTO PRICE - 3
   B1C4_17
                   B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_17
                   B24. CAR PAYMENTS INTEREST/PRINCIPAL
   B24_17
                   B24A. CAR PAYMENTS - PER
   B24A_17
```

# 2.13 Mortgage Payments and Interest

Wave	Variable	Label	Type
5	H5CMORT	H5CMORT:W5 CAMS: Mortgage Interest + Principal Payments	Cont
6	H6CMORT	H6CMORT:W6 CAMS: Mortgage Interest + Principal Payments	Cont
7	H7CMORT	H7CMORT:W7 CAMS: Mortgage Interest + Principal Payments	Cont
8	H8CMORT	H8CMORT: W8 CAMS: Mortgage Interest + Principal Payments	Cont
9	H9CMORT	H9CMORT: W9 CAMS: Mortgage Interest + Principal Payments	Cont
10	H10CMORT	H10CMORT:W10 CAMS: Mortgage Interest + Principal Payments	Cont
11	H11CMORT	H11CMORT:W11 CAMS: Mortgage Interest + Principal Payments	Cont
12	H12CMORT	H12CMORT:W12 CAMS: Mortgage Interest + Principal Payments	Cont
13	H13CMORT	H13CMORT:W13 CAMS: Mortgage Interest + Principal Payments	Cont
5	H5CMORTINT	H5CMORTINT:W5 CAMS: Mortgage Interest	Cont
6	H6CMORTINT	H6CMORTINT:W6 CAMS: Mortgage Interest	Cont
7	H7CMORTINT	H7CMORTINT:W7 CAMS: Mortgage Interest	Cont
8	H8CMORTINT	H8CMORTINT: W8 CAMS: Mortgage Interest	Cont
9	H9CMORTINT	H9CMORTINT:W9 CAMS: Mortgage Interest	Cont
10	H10CMORTINT	H10CMORTINT:W10 CAMS: Mortgage Interest	Cont
11	H11CMORTINT	H11CMORTINT:W11 CAMS: Mortgage Interest	Cont
12	H12CMORTINT	H12CMORTINT: W12 CAMS: Mortgage Interest	Cont
13	H13CMORTINT	H13CMORTINT:W13 CAMS: Mortgage Interest	Cont

# **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CMORT	3789	3094.47	5804.00	0.0	52000.0
H6CMORT	3224	3357.67	6683.57	0.0	70000.0
H7CMORT	3832	4060.72	8926.71	0.0	138000.0
H8CMORT	3704	4547.91	9678.60	0.0	126048.0
H9CMORT	3550	4387.70	9887.94	0.0	123600.0
H10CMORT	4319	4575.35	8444.19	0.0	82368.0
H11CMORT	4017	4284.98	8534.49	0.0	102000.0
H12CMORT	3689	4426.69	9801.59	0.0	123052.0
H13CMORT	3454	4456.53	9353.33	0.0	114000.0
H5CMORTINT	3789	1836.25	3490.58	0.0	33137.0
H6CMORTINT	3224	1881.99	3791.49	0.0	40299.0
H7CMORTINT	3832	2180.23	4795.70	0.0	73209.0
H8CMORTINT	3704	2561.50	5391.46	0.0	67108.0
H9CMORTINT	3550	2365.49	5319.02	0.0	64536.0
H10CMORTINT	4319	2489.47	4592.79	0.0	42988.0
H11CMORTINT	4017	2447.85	4853.93	0.0	56590.0
H12CMORTINT	3689	2360.19	5224.89	0.0	66990.0
H13CMORTINT	3454	2554.67	5521.40	0.0	72572.0

## **General Comments**

Generally, Wave 5 questions ask about 2001 spending, Wave 6 asks about 2003 spending, and so forth until Wave 13 which asks about 2017 spending. The CAMS Respondent reports spending for all members of his/her household.

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 the section "1.6 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" and our imputed "mortgage interest" 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 "1.7 Components of Household Spending and Consumption" for more details on the calculation of mortgage interest.

#### **How Constructed**

HwCMORT is the mortgage payment amount and includes interest and principal.

HwCMORTINT is the mortgage interest amount that is a component of HwCTOTS. It can be subtracted from HwCTOTS should the analyst choose to develop an alternative measure of mortgage spending. We approximated households' interest using Consumer Expenditure Survey data. Please see the section "1.7 Components of Household Spending and Consumption" for details.

```
CAMS 2001:
   B7_01
                  B7. MORTGAGE
   B7A_01
                 B7A. MORTAGAGE - PER
CAMS 2003:
                 B13. MORTGAGE
   B13_03
                 B13A. MORTAGAGE - PER
   B13A_03
CAMS 2005:
                B18. MORTGAGE
   B18_05
                 B18A. MORTAGAGE - PER
   B18A_05
CAMS 2007:
                B18. MORTGAGE
B18A. MORTAGAGE - PER
   B18 07
   B18A 07
CAMS 2009:
               B18. MORTGAGE
   B18_09
   B18A_09
                  B18A. MORTAGAGE - PER
CAMS 2011:
               B18. MORTGAGE
   B18 11
   B18A_11
                 B18A. MORTAGAGE - PER
CAMS 2013:
                B18. MORTGAGE
   B18_13
   B18A_13
                 B18A. MORTGAGE - PER
CAMS 2015:
   B18_15
                 B18. MORTGAGE
   B18A_15
                 B18A. MORTGAGE - PER
CAMS 2017:
   B18 17
                 B18. MORTGAGE
   B18A_17
                 B18A. MORTGAGE - PER
```

## 2.14 Total Household Consumption

Wave	Variable	Label	Type
5	H5CTOTC	H5CTOTC: Total HHold Consumption	Cont
6	н6стотс	H6CTOTC: Total HHold Consumption	Cont
7	Н7СТОТС	H7CTOTC: Total HHold Consumption	Cont
8	H8CTOTC	H8CTOTC: Total HHold Consumption	Cont
9	Н9СТОТС	H9CTOTC: Total HHold Consumption	Cont
10	H10CTOTC	H10CTOTC: Total HHold Consumption	Cont
11	H11CTOTC	H11CTOTC: Total HHold Consumption	Cont
12	H12CTOTC	H12CTOTC: Total HHold Consumption	Cont

## **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CTOTC	3789	41718.94	32368.92	238.0	399257.0
H6CTOTC	3224	45522.42	33713.04	131.0	394655.0
H7CTOTC	3832	45664.27	34365.43	0.0	354162.0
H8CTOTC	3704	49062.41	36922.67	122.0	471865.0
H9CTOTC	3550	46827.06	35198.21	117.0	513050.0
H10CTOTC	4319	44214.56	33241.45	78.0	457798.0
H11CTOTC	4017	43129.76	31748.60	72.0	383732.0
H12CTOTC	3689	45214.25	35554.82	65.0	456268.0

### **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 "1.7 Components of Household Spending and Consumption." Consumption variables for 2017 are not calculated for the RAND HRS CAMS Data File 2017 (V1) because the imputation of these variables relies on HRS 2018 core data for house value and transportation value, which are not yet available. The next version of the RAND HRS CAMS Data File will be published once the HRS 2018 early release data has been released, and will incorporate the CAMS 2017 consumption variables.

#### **How Constructed**

HwCTOTC is the sum of all of the consumption in the household, including durable consumption, housing consumption, transportation consumption and nondurable spending. Details on the specification of each of these measures can be found on the following pages of the data codebook and also in section "1.7 Components of Household Spending and Consumption." The nondurable spending categories vary by wave. Please see "1.5 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 "1.5 Differences Across Waves").

### RAND HRS Longitudinal File 2016 (V1) Variables Used

```
RABYEAR
          RABYEAR: R birth year
RAEDUC
         RAEDUC: R education (categ)
RAGENDER RAGENDER: R Gender
H5AHOUS
         H5AHOUS:W5 Assets:Primary Residence--Cross-wave
         H6AHOUS: W6 Assets: Primary Residence -- Cross-wave
H6AHOUS
H7AHOUS
         H7AHOUS:W7 Assets:Primary Residence--Cross-wave
         H8AHOUS: W8 Assets: Primary Residence -- Cross-wave
H8AHOUS
H9AHOUS
         H9AHOUS: W9 Assets: Primary Residence -- Cross-wave
H10AHOUS H10AHOUS: W10 Assets: Primary Residence -- Cross-wave
H11AHOUS H11AHOUS:W11 Assets:Primary Residence--Cross-wave
H12AHOUS H12AHOUS:W12 Assets:Primary Residence--Cross-wave
H13AHOUS H13AHOUS:W13 Assets:Primary Residence--Cross-wave
H5ATOTA
         H5ATOTA:W5 Total of all Assets--Cross-wave
H6ATOTA
         H6ATOTA:W6 Total of all Assets--Cross-wave
H7ATOTA
        H7ATOTA:W7 Total of all Assets--Cross-wave
H8ATOTA
        H8ATOTA: W8 Total of all Assets--Cross-wave
H9ATOTA
        H9ATOTA: W9 Total of all Assets--Cross-wave
H10ATOTA H10ATOTA: W10 Total of all Assets--Cross-wave
H11ATOTA H11ATOTA: W11 Total of all Assets--Cross-wave
H12ATOTA H12ATOTA: W12 Total of all Assets--Cross-wave
H13ATOTA H13ATOTA: W13 Total of all Assets--Cross-wave
H5ATRAN H5ATRAN: W5 Assets: Transportation -- Cross-wave
H6ATRAN H6ATRAN: W6 Assets: Transportation -- Cross-wave
H7ATRAN H7ATRAN: W7 Assets: Transportation -- Cross-wave
H8ATRAN
        H8ATRAN: W8 Assets: Transportation -- Cross-wave
        H9ATRAN: W9 Assets: Transportation -- Cross-wave
H9ATRAN
H10ATRAN H10ATRAN: W10 Assets: Transportation -- Cross-wave
H11ATRAN H11ATRAN: W11 Assets: Transportation -- Cross-wave
H12ATRAN H12ATRAN:W12 Assets:Transportation--Cross-wave
H13ATRAN H13ATRAN: W13 Assets: Transportation -- Cross-wave
H5HHRES: W5 Number of people in HH
H6HHRES: W6 Number of people in HH
H7HHRES: W7 Number of people in HH
H8HHRES: W8 Number of people in HH
H9HHRES: W9 Number of people in HH
H10HHRES H10HHRES: W10 Number of people in HH
H11HHRES H11HHRES: W11 Number of people in HH
H12HHRES H12HHRES: W12 Number of people in HH
H13HHRES H13HHRES:W13 Number of people in HH
         H5ITOT:W5 Incm: Total HHold / R+Sp only
H5ITOT
         H6ITOT:W6 Incm: Total HHold / R+Sp only
H6ITOT
H7ITOT
         H7ITOT:W7 Incm: Total HHold / R+Sp only
         H8ITOT: W8 Incm: Total HHold / R+Sp only
H8ITOT
H9ITOT
         H9ITOT: W9 Incm: Total HHold / R+Sp only
H10ITOT H10ITOT: W10 Incm: Total HHold / R+Sp only
H11ITOT
         H11ITOT: W11 Incm: Total HHold / R+Sp only
H12ITOT
         H12ITOT:W12 Incm: Total HHold / R+Sp only
H13ITOT
        H13ITOT:W13 Incm: Total HHold / R+Sp only
```

CAMS 2001:	
B2_01	B2. BUY REFRIGERATOR
B2A_01	B2A. REFRIGERATOR PRICE
B3_01	B3. BUY WASHER/DRYER
B3A_01	B3A. WASHER/DRYER PRICE
B4_01	B4. BUY DISWASHER
B4A_01	B4A. DISHWASHER PRICE
 B5_01	B5. BUY TELEVISION
<del>-</del>	B5A. TELEVISION PRICE
B6_01	B6. BUY COMPUTER
B6A_01	B6A. COMPUTER PRICE
	B8. HOME/RENT INS.
	B8A. HOME/RENT INS - PER
B9 01	B9. PROPERTY TAX
B9A_01	B9A. PROPERTY TAX - PER
B10_01	B10. RENT
B10A_01	B10A. RENT - PER
B11_01	B11. ELECTRICITY
	B11A. ELECTRICITY - PER
	B12. WATER
	B12A. WATER - PER
	B13. HEAT
B13A_01	B13A. HEAT - PER
	B14. PHONE/CABLE/INTERNET
B14A_01	B14A. PHONE/CABLE - PER
B17_01	B17. HEALTH INSURANCE
B17A_01	B17A. HEALTH INSUR - PER
B18_01	B18. HOUSE/YARD SUPPLIES
B18A_01	B18A. HOUSE/YARD - PER
B19_01	B19. HOME MAINTAIN
B19A_01	B19A. HOME MAINTAIN - PER
B20A_01	B20. FOOD/DRINK GROC - PER
B20_01	B20. FOOD/DRINK GROCERY
B21_01	B21. DINING OUT
	B21A. DINING OUT - PER
B22_01	B22. CLOTHING
	B22A. CLOTHING - PER
B23_01	B23. GASOLINE
B23A_01	B23A. GASOLINE - PER
	B25. DRUGS
B25A_01	B25A. DRUGS - PER
B26_01	B26. HEALTH SERVICES
B26A_01	B26A. HEALTH SERVICES - PER
B27_01	B27. MEDICAL SUPPLIES
B27A_01	B27A. MED SUPPLIES - PER
B28_01	B28. VACATIONS
B28A_01	B28A. VACATIONS - PER
B29_01	B29. TICKETS
B29A_01	B29A. TICKETS - PER
B30_01	B30. HOBBIES
B30A_01	B30A. HOBBIES - PER
B31_01	B31. CONTRIBUTIONS
B31A_01	B31A. CONTRIBUTIONS - PER
B32_01	B32. GIFTS
B32A_01	B32A. GIFTS - PER
CAMS 2003:	
B2_03	B2. BUY REFRIGERATOR
B2A_03	B2A. REFRIGERATOR PRICE

```
B3_03
               B3. BUY WASHER/DRYER
               B3A. WASHER/DRYER PRICE
B3A_03
B4_03
               B4. BUY DISWASHER
B4A_03
               B4A. DISHWASHER PRICE
B5_03
               B5. BUY TELEVISION
B5A_03
               B5A. TELEVISION PRICE
               B6. BUY COMPUTER
B6_03
B6A_03
               B6A. COMPUTER PRICE
               B7. HOME/RENTERS INSURANCE
B7_03
B8_03
               B8. PROPERTY TAXES
B11_03
              B11. HEALTH INSURANCE
               B12. TRIPS AND VACATIONS
B12_03
B14_03
               B14. RENT
B14A_03
               B14A. RENT - PER
               B15. ELECTRICITY
B15_03
               B15A. ELECTRICITY - PER
B15A_03
B16_03
               B16. WATER
B16A_03
               B16A. WATER - PER
               B17. HEAT
B17_03
               B17A. HEAT - PER
B17A_03
B18_03
               B18. PHONE/CABLE/INTERNET
               B18A. PHONE/CABLE - PER
B18A_03
               B20. HOUSEKEEPING SUPPLIES
B20_03
B20A_03
               B20A. HOUSEKEEPING SUPPLIES - PER
B21_03
               B21. HOUSEKEEPING SERVICES
B21A_03
              B21A. HOUSEKEEPING SERVICES - PER
B22_03
              B22.GARDENING/YARD SUPPLIES
B22A 03
              B22A. GARDEN/YARD SUPPLIES - PER
               B23. GARDEN/YARD SERVICES
B23_03
               B23A. GARDEN/YARD SERVICES - PER
B23A_03
B24_03
               B24. HOME REPAIRS/MAINTENANCE DIY
B24A_03
               B24A. HOME REPAIRS/MAINTENANCE DIY - PER
B25_03
               B25. HOME REPAIRS/MAINTENANCE SERVICES
B25A_03
                B25A. HOME REPAIRS/MAINTENANCE SERVICE - PER
B26_03
               B26. CLOTHING AND APPAREL
B26A_03
               B26A. CLOTHING - PER
B27_03
               B27. PERSONAL CARE PRODUCTS/SERVICES
               B27A. PERSONAL CARE PRODUCTS/SERVICES - PER
B27A_03
B28_03
               B28. DRUGS
B28A_03
               B28A. DRUGS - PER
B29_03
               B29. HEALTH SERVICES
               B29A. HEALTH SERVICES - PER
B29A_03
B30 03
              B30. MEDICAL SUPPLIES
B30A 03
              B30A. MED SUPPLIES - PER
               B31. TICKETS
B31 03
               B31A. TICKETS - PER
B31A_03
               B32. SPORTS EQUIPMENT
B32_03
B32A_03
               B32A. SPORTS EQUIPMENT - PER
B33_03
               B33. HOBBIES/LEISURE EQUIPMENT
B33A 03
               B33A. HOBBIES/LEISURE EQUIPMENT - PER
B34_03
               B34. CONTRIBUTIONS
               B34A. CONTRIBUTIONS - PER
B34A_03
B35_03
               B35. GIFTS
               B35A. GIFTS - PER
B35A_03
B36A_03
               B36. FOOD/DRINK GROC - PER
B36 03
               B36. FOOD/DRINK GROCERY
               B37. DINING OUT
B37_03
B37A_03
              B37A. DINING OUT - PER
B38 03
               B38. GASOLINE
```

```
B38A_03
                  B38A. GASOLINE - PER
CAMS 2005:
   B2_05
                   B2. BUY REFRIGERATOR
    B2A_05
                   B2A. REFRIGERATOR PRICE
   B3_05
                   B3. BUY WASHER/DRYER
   B3A_05
                   B3A. WASHER/DRYER PRICE
                   B4. BUY DISWASHER
   B4_05
                  B4A. DISHWASHER PRICE
   B4A_05
                   B5. BUY TELEVISION
   B5_05
   B5A_05
                  B5A. TELEVISION PRICE
    B6_05
                   B6. BUY COMPUTER
                  B6A. COMPUTER PRICE
   B6A_05
   B7_05
                   B7. HOME/RENTERS INSURANCE
   B8 05
                  B8. PROPERTY TAXES
   B11_05
                   B11. HEALTH INSURANCE
   B12_05
                   B12. TRIPS AND VACATIONS
   B13_05
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_05
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B15_05
   B16_05
                   B16. CONTRIBUTIONS
   B17_05
                   B17. GIFTS
                   B19. RENT
   B19_05
                   B19A. RENT - PER
   B19A_05
   B20_05
                   B20. ELECTRICITY
   B20A_05
                   B20A. ELECTRICITY - PER
   B21_05
                  B21. WATER
                  B21A. WATER - PER
   B21A_05
   B22 05
                  B22. HEAT
                  B22A. HEAT - PER
   B22A_05
                   B23. PHONE/CABLE/INTERNET
   B23_05
                   B23A. PHONE/CABLE - PER
   B23A_05
   B25_05
                   B25. HOUSEKEEPING SUPPLIES
   B25A_05
                   B25A. HOUSEKEEPING SUPPLIES - PER
                   B26. HOUSEKEEPING SERVICES
   B26_05
   B26A_05
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_05
                   B27.GARDENING/YARD SUPPLIES
   B27A_05
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_05
                   B28. GARDEN/YARD SERVICES
   B28A_05
                  B28A. GARDEN/YARD SERVICES - PER
   B29_05
                  B29. CLOTHING AND APPAREL
   B29A_05
                  B29A. CLOTHING - PER
                  B30. PERSONAL CARE PRODUCTS/SERVICES
   B30_05
   B30A 05
                  B30A. PERSONAL CARE PROD/SERVICES - PER
   B31 05
                  B31. DRUGS OOP
                  B31A. DRUGS OOP - PER
   B31A_05
   B32_05
                  B32. HEALTH SERVICES
                   B32A. HEALTH SERVICES - PER
   B32A_05
   B33 05
                   B33. MEDICAL SUPPLIES
   B33A_05
                   B33A. MED SUPPLIES - PER
   B34 05
                   B34. TICKETS
   B34A_05
                   B34A. TICKETS - PER
                   B35. SPORTS EQUIPMENT
   B35 05
                   B35A. SPORTS EQUIPMENT - PER
   B35A_05
   B36_05
                  B36. HOBBIES/LEISURE EQUIPMENT
   B36A_05
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B37 05
                  B37. FOOD/DRINK GROCERY
                   B37A. FOOD/DRINK GROC - PER
   B37A_05
   B38_05
                  B38. DINING OUT
   B38A 05
                  B38A. DINING OUT - PER
```

```
B39_05
                   B39. GASOLINE
                   B39A. GASOLINE - PER
   B39A_05
CAMS 2007:
   B2_07
                   B2. BUY REFRIGERATOR
   B2A_07
                   B2A. REFRIGERATOR PRICE
                   B3. BUY WASHER/DRYER
   B3_07
                   B3A. WASHER/DRYER PRICE
   B3A_07
                   B4. BUY DISWASHER
   B4_07
   B4A_07
                   B4A. DISHWASHER PRICE
   B5_07
                   B5. BUY TELEVISION
   B5A_07
                   B5A. TELEVISION PRICE
                   B6. BUY COMPUTER
   B6_07
   B6A_07
                   B6A. COMPUTER PRICE
   в7 07
                   B7. HOME/RENTERS INSURANCE
   B8_07
                   B8. PROPERTY TAXES
   B11_07
                   B11. HEALTH INSURANCE
                   B12. TRIPS AND VACATIONS
   B12_07
   B13_07
                   B13. HOME REPAIRS/MAINTENANCE DIY
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_07
   B15_07
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_07
                   B16. CONTRIBUTIONS
                   B17. GIFTS
   B17_07
   B19_07
                   B19. RENT
   B19A_07
                   B19A. RENT - PER
   B20_07
                  B20. ELECTRICITY
   B20A_07
                  B20A. ELECTRICITY - PER
                  B21. WATER
   B21_07
   B21A 07
                  B21A. WATER - PER
   B22_07
                  B22. HEAT
                   B22A. HEAT - PER
   B22A_07
                   B23. PHONE/CABLE/INTERNET
   B23_07
                   B23A. PHONE/CABLE - PER
   B23A_07
   B25_07
                   B25. HOUSEKEEPING SUPPLIES
   B25A_07
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_07
                   B26. HOUSEKEEPING SERVICES
   B26A_07
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_07
                   B27. GARDENING/YARD SUPPLIES
   B27A_07
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_07
                   B28. GARDEN/YARD SERVICES
   B28A_07
                   B28A. GARDEN/YARD SERVICES - PER
   B29_07
                  B29. CLOTHING AND APPAREL
                  B29A. CLOTHING - PER
   B29A_07
   B30 07
                  B30. PERSONAL CARE PRODUCTS/SERVICES
   B30A 07
                  B30A. PERSONAL CARE PROD/SERVICES - PER
                  B31. DRUGS OOP
   B31 07
                   B31A. DRUGS OOP - PER
   B31A_07
                   B32. HEALTH SERVICES
   B32_07
   B32A_07
                   B32A. HEALTH SERVICES - PER
   B33_07
                   B33. MEDICAL SUPPLIES
                   B33A. MED SUPPLIES - PER
   B33A 07
   B34_07
                   B34. TICKETS
                   B34A. TICKETS - PER
   B34A_07
                   B35. SPORTS EQUIPMENT
   B35_07
                   B35A. SPORTS EQUIPMENT - PER
   B35A_07
   B36_07
                  B36. HOBBIES/LEISURE EQUIPMENT
   B36A_07
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
                  B37. FOOD/DRINK GROCERY
   B37_07
   B37A_07
                  B37A. FOOD/DRINK GROC - PER
   B38 07
                  B38. DINING OUT
```

```
B38A_07
                   B38A. DINING OUT - PER
   B39_07
                   B39. GASOLINE
   B39A_07
                   B39A. GASOLINE - PER
CAMS 2009:
   B2_09
                   B2. BUY REFRIGERATOR
   B2A_09
                   B2A. REFRIGERATOR PRICE
                   B3. BUY WASHER/DRYER
   B3_09
                   B3A. WASHER/DRYER PRICE
   B3A_09
                   B4. BUY DISWASHER
   B4_09
    B4A_09
                   B4A. DISHWASHER PRICE
    B5_09
                   B5. BUY TELEVISION
                   B5A. TELEVISION PRICE
    B5A_09
   B6_09
                   B6. BUY COMPUTER
   B6A_09
                   B6A. COMPUTER PRICE
   B7_09
                   B7. HOME/RENTERS INSURANCE
   B8 09
                   B8. PROPERTY TAXES
   B11_09
                   B11. HEALTH INSURANCE
   B12_09
                   B12. TRIPS AND VACATIONS
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B13_09
   B14_09
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B15_09
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
                   B16. CONTRIBUTIONS
   B16_09
                   B17. GIFTS
   B17_09
   B19_09
                   B19. RENT
   B19A_09
                   B19A. RENT - PER
   B20_09
                   B20. ELECTRICITY
   B20A_09
                  B20A. ELECTRICITY - PER
   B21 09
                  B21. WATER
                  B21A. WATER - PER
   B21A_09
   B22_09
                   B22. HEAT
                   B22A. HEAT - PER
   B22A_09
   B23_09
                   B23. PHONE/CABLE/INTERNET
   B23A_09
                   B23A. PHONE/CABLE - PER
                   B25. HOUSEKEEPING SUPPLIES
   B25_09
   B25A_09
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_09
                   B26. HOUSEKEEPING SERVICES
   B26A_09
                   B26A. HOUSEKEEPING SERVICES - PER
                   B27. GARDENING/YARD SUPPLIES
   B27_09
   B27A_09
                   B27A. GARDEN/YARD SUPPLIES - PER
   B28_09
                   B28. GARDEN/YARD SERVICES
   B28A_09
                  B28A. GARDEN/YARD SERVICES - PER
                  B29. CLOTHING AND APPAREL
   B29_09
   B29A 09
                  B29A. CLOTHING - PER
   B30 09
                  B30. PERSONAL CARE PRODUCTS/SERVICES
   B30A_09
                  B30A. PERSONAL CARE PROD/SERVICES - PER
   B31_09
                   B31. DRUGS OOP
                   B31A. DRUGS OOP - PER
   B31A_09
   B32 09
                   B32. HEALTH SERVICES
   B32A_09
                   B32A. HEALTH SERVICES - PER
   B33 09
                   B33. MEDICAL SUPPLIES
   B33A_09
                   B33A. MED SUPPLIES - PER
                   B34. TICKETS
   B34 09
                   B34A. TICKETS - PER
   B34A_09
   B35_09
                   B35. SPORTS EQUIPMENT
   B35A_09
                  B35A. SPORTS EQUIPMENT - PER
   B36 09
                  B36. HOBBIES/LEISURE EQUIPMENT
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   B36A_09
   B37_09
                  B37. FOOD/DRINK GROCERY
   B37A_09
                  B37A. FOOD/DRINK GROC - PER
```

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B38_09
                   B38. DINING OUT
                   B38A. DINING OUT - PER
   B38A_09
   B39_09
                   B39. GASOLINE
   B39A_09
                   B39A. GASOLINE - PER
CAMS 2011:
   B2_11
                   B2. BUY REFRIGERATOR
                   B2A. REFRIGERATOR PRICE
   B2A_11
                   B3. BUY WASHER/DRYER
   B3_11
                   B3A. WASHER/DRYER PRICE
   B3A_11
    B4_11
                   B4. BUY DISWASHER
    B4A_11
                   B4A. DISHWASHER PRICE
                   B5. BUY TELEVISION
   B5_11
   B5A_11
                   B5A. TELEVISION PRICE
   B6_11
                   B6. BUY COMPUTER
   B6A_11
                   B6A. COMPUTER PRICE
   B7_11
                   B7. HOME/RENTERS INSURANCE
   B8_11
                   B8. PROPERTY TAXES
   B11_11
                   B11. HEALTH INSURANCE
                   B12. TRIPS AND VACATIONS
   B12_11
   B13_11
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_11
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B15_11
                   B16. CONTRIBUTIONS
   B16_11
   B17_11
                   B17. GIFTS
   B19_11
                   B19. RENT
   B19A_11
                   B19A. RENT - PER
                   B20. ELECTRICITY
   B20_11
   B20A 11
                  B20A. ELECTRICITY - PER
                   B21. WATER
   B21_11
                   B21A. WATER - PER
   B21A_11
                   B22. HEAT
   B22_11
                   B22A. HEAT - PER
   B22A_11
   B23_11
                   B23. PHONE/CABLE/INTERNET
   B23A_11
                   B23A. PHONE/CABLE - PER
   B25_11
                   B25. HOUSEKEEPING SUPPLIES
   B25A_11
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_11
                   B26. HOUSEKEEPING SERVICES
                   B26A. HOUSEKEEPING SERVICES - PER
   B26A_11
   B27_11
                   B27. GARDENING/YARD SUPPLIES
   B27A_11
                  B27A. GARDEN/YARD SUPPLIES - PER
   B28_11
                  B28. GARDEN/YARD SERVICES
                  B28A. GARDEN/YARD SERVICES - PER
   B28A_11
   B29 11
                  B29. CLOTHING AND APPAREL
   B29A 11
                  B29A. CLOTHING - PER
   B30 11
                   B30. PERSONAL CARE PRODUCTS/SERVICES
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_11
                   B31. DRUGS OOP
   B31_11
   B31A_11
                   B31A. DRUGS OOP - PER
   B32_11
                   B32. HEALTH SERVICES
   B32A 11
                   B32A. HEALTH SERVICES - PER
   B33_11
                   B33. MEDICAL SUPPLIES
                   B33A. MED SUPPLIES - PER
   B33A_11
                   B34. TICKETS
   B34_11
                   B34A. TICKETS - PER
   B34A_11
                   B35. SPORTS EQUIPMENT
   B35_11
   B35A 11
                   B35A. SPORTS EQUIPMENT - PER
                  B36. HOBBIES/LEISURE EQUIPMENT
   B36_11
   B36A_11
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
   В37 11
                  B37. FOOD/DRINK GROCERY
```

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B37A_11
                   B37A. FOOD/DRINK GROC - PER
                   B38. DINING OUT
   B38_11
   B38A_11
                    B38A. DINING OUT - PER
   B39_11
                    B39. GASOLINE
   B39A_11
                   B39A. GASOLINE - PER
CAMS 2013:
                   B2. BUY REFRIGERATOR
   B2_13
   B2A_13
                   B2A. REFRIGERATOR PRICE
                   B3. BUY WASHER/DRYER
   B3_13
    B3A_13
                   B3A. WASHER/DRYER PRICE
                   B4. BUY DISWASHER
    B4 13
                   B4A. DISHWASHER PRICE
    B4A_13
   B5_13
                   B5. BUY TELEVISION
   B5A_13
                   B5A. TELEVISION PRICE
   B6_13
                   B6. BUY COMPUTER
   B6A_13
                   B6A. COMPUTER PRICE
   B7_13
                   B7. HOME/RENTERS INSURANCE
   B8_13
                   B8. PROPERTY TAXES
                   B11. HEALTH INSURANCE
   B11_13
   B12_13
                   B12. TRIPS AND VACATIONS
   B13_13
                   B13. HOME REPAIRS/MAINTENANCE DIY
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_13
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B15_13
   B16_13
                   B16. CONTRIBUTIONS
   B17_13
                   B17. GIFTS
   B19_13
                   B19. RENT
   B19A_13
                   B19A. RENT - PER
   B20 13
                   B20. ELECTRICITY
                   B20A. ELECTRICITY - PER
   B20A_13
   B21_13
                   B21. WATER
                   B21A. WATER - PER
   B21A_13
   B22_13
                   B22. HEAT
   B22A_13
                   B22A. HEAT - PER
                    B23. PHONE/CABLE/INTERNET
   B23_13
   B23A_13
                   B23A. PHONE/CABLE - PER
   B25_13
                   B25. HOUSEKEEPING SUPPLIES
   B25A_13
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_13
                   B26. HOUSEKEEPING SERVICES
   B26A_13
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_13
                   B27. GARDENING/YARD SUPPLIES
   B27A_13
                   B27A. GARDEN/YARD SUPPLIES - PER
                   B28. GARDEN/YARD SERVICES
   B28_13
   B28A 13
                   B28A. GARDEN/YARD SERVICES - PER
                   B29. CLOTHING AND APPAREL
   B29 13
   B29A_13
                   B29A. CLOTHING - PER
   B30_13
                   B30. PERSONAL CARE PRODUCTS/SERVICES
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B30A_13
   B31 13
                   B31. DRUGS OOP
   B31A_13
                   B31A. DRUGS OOP - PER
   B32 13
                   B32. HEALTH SERVICES
   B32A_13
                   B32A. HEALTH SERVICES - PER
                   B33. MEDICAL SUPPLIES
   B33 13
                   B33A. MED SUPPLIES - PER
   B33A_13
                   B34. TICKETS
   B34_13
                   B34A. TICKETS - PER
   B34A_13
   B35 13
                   B35. SPORTS EQUIPMENT
                   B35A. SPORTS EQUIPMENT - PER
   B35A_13
   B36_13
                  B36. HOBBIES/LEISURE EQUIPMENT
   B36A 13
                  B36A. HOBBIES/LEISURE EQUIPMENT - PER
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B37_13
                   B37. FOOD/DRINK GROCERY
                   B37A. FOOD/DRINK GROC - PER
   B37A_13
   B38_13
                    B38. DINING OUT
   B38A_13
                    B38A. DINING OUT - PER
   B39_13
                   B39. GASOLINE
                   B39A. GASOLINE - PER
   B39A_13
CAMS 2015:
                   B2. BUY REFRIGERATOR
   B2_15
                   B2A. REFRIGERATOR PRICE
   B2A_15
   B3_15
                   B3. BUY WASHER/DRYER
    B3A_15
                   B3A. WASHER/DRYER PRICE
                   B4. BUY DISWASHER
    B4_15
   B4A_15
                   B4A. DISHWASHER PRICE
   B5_15
                   B5. BUY TELEVISION
                   B5A. TELEVISION PRICE
   B5A_15
   B6_15
                   B6. BUY COMPUTER
    B6A_15
                   B6A. COMPUTER PRICE
   B7_15
                   B7. HOME/RENTERS INSURANCE
                   B8. PROPERTY TAXES
   B8_15
   B11_15
                   B11. HEALTH INSURANCE
                   B12. TRIPS AND VACATIONS
   B12_15
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B13_15
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_15
   B15_15
                   B15. HOUSEHOLD FURNISHINGS AND EQUIPMENT
   B16_15
                   B16. CONTRIBUTIONS
   B17_15
                   B17. GIFTS
                   B19. RENT
   B19_15
   B19A 15
                   B19A. RENT - PER
                   B20. ELECTRICITY
   B20_15
                   B20A. ELECTRICITY - PER
   B20A_15
   B21_15
                   B21. WATER
                   B21A. WATER - PER
   B21A_15
   B22_15
                   B22. HEAT
   B22A_15
                    B22A. HEAT - PER
   B23_15
                   B23. PHONE/CABLE/INTERNET
   B23A_15
                   B23A. PHONE/CABLE - PER
   B25_15
                   B25. HOUSEKEEPING SUPPLIES
   B25A_15
                   B25A. HOUSEKEEPING SUPPLIES - PER
   B26_15
                   B26. HOUSEKEEPING SERVICES
   B26A_15
                   B26A. HOUSEKEEPING SERVICES - PER
   B27_15
                   B27. GARDENING/YARD SUPPLIES
                   B27A. GARDEN/YARD SUPPLIES - PER
   B27A_15
   B28 15
                   B28. GARDEN/YARD SERVICES
   B28A 15
                   B28A. GARDEN/YARD SERVICES - PER
                   B29. CLOTHING AND APPAREL
   B29 15
                   B29A. CLOTHING - PER
   B29A_15
                   B30. PERSONAL CARE PRODUCTS/SERVICES
   B30_15
   B30A_15
                   B30A. PERSONAL CARE PROD/SERVICES - PER
   B31_15
                   B31. DRUGS OOP
                   B31A. DRUGS OOP - PER
   B31A 15
   B32_15
                   B32. HEALTH SERVICES
                   B32A. HEALTH SERVICES - PER
   B32A_15
   B33_15
                   B33. MEDICAL SUPPLIES
                   B33A. MED SUPPLIES - PER
   B33A_15
                   B34. TICKETS
   B34_15
   B34A_15
                   B34A. TICKETS - PER
                   B35. SPORTS EQUIPMENT
   B35_15
   B35A 15
                   B35A. SPORTS EQUIPMENT - PER
   B36 15
                   B36. HOBBIES/LEISURE EQUIPMENT
```

B36A_15	B36A. HOBBIES/LEISURE EQUIPMENT - PER
B37_15	B37. FOOD/DRINK GROCERY
B37A_15	B37A. FOOD/DRINK GROC - PER
B38_15	B38. DINING OUT
B38A_15	B38A. DINING OUT - PER
B39_15	B39. GASOLINE
B39A_15	B39A. GASOLINE - PER

### 2.15 Total Durable Consumption

Wave	Variable	Label	Туре
5	H5CDURC	H5CDURC:W5 CAMS: Total HHold Durables Consumption excl. trans cons	Cont
6	H6CDURC	H6CDURC:W6 CAMS: Total HHold Durables Consumption excl. trans cons	Cont
7	H7CDURC	H7CDURC:W7 CAMS: Total HHold Durables Consumption excl. trans cons	Cont
8	H8CDURC	H8CDURC: W8 CAMS: Total HHold Durables Consumption excl. trans cons	Cont
9	H9CDURC	H9CDURC: W9 CAMS: Total HHold Durables Consumption excl. trans cons	Cont
10	H10CDURC	H10CDURC: W10 CAMS: Total HHold Durables Consumption excl. trans con	Cont
11	H11CDURC	H11CDURC: W11 CAMS: Total HHold Durables Consumption excl. trans con	Cont
12	H12CDURC	H12CDURC: W12 CAMS: Total HHold Durables Consumption excl. trans con	Cont

## **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CDURC	3789	255.65	161.78	39.0	1366.0
H6CDURC	3224	230.05	145.70	46.0	1459.0
H7CDURC	3832	266.55	184.70	0.0	1780.0
H8CDURC	3704	302.21	226.12	34.0	3803.0
H9CDURC	3550	282.58	165.21	33.0	1267.0
H10CDURC	4319	265.50	169.63	21.0	1192.0
H11CDURC	4017	230.44	134.94	37.0	1198.0
H12CDURC	3689	218.38	148.40	24.0	1004.0

#### **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 "1.7 Components of Household Spending and Consumption." Consumption variables for 2017 are not calculated for the RAND HRS CAMS Data File 2017 (V1) because the imputation of these variables relies on HRS 2018 core data for house value and transportation value, which are not yet available. The next version of the RAND HRS CAMS Data File will be published once the HRS 2018 early release data has been released, and will incorporate the CAMS 2017 consumption variables.

#### **How Constructed**

HwCDURC is the annual service flow for the five durables (excluding transportation consumption): televisions, computers, and white metal items (refrigerator, washer/dryer, and dishwasher).

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 section "1.7 Components of Household Spending and Consumption" for details.

## RAND HRS Longitudinal File 2016 (V1) Variables Used

```
RABYEAR: R birth year
         RAEDUC: R education (categ)
RAEDUC
RAGENDER RAGENDER: R Gender
H5ATOTA H5ATOTA:W5 Total of all Assets--Cross-wave
H6ATOTA H6ATOTA:W6 Total of all Assets--Cross-wave
H7ATOTA H7ATOTA: W7 Total of all Assets--Cross-wave
H8ATOTA H8ATOTA: W8 Total of all Assets--Cross-wave
H9ATOTA H9ATOTA: W9 Total of all Assets--Cross-wave
H10ATOTA H10ATOTA:W10 Total of all Assets--Cross-wave
H11ATOTA H11ATOTA: W11 Total of all Assets--Cross-wave
H12ATOTA H12ATOTA:W12 Total of all Assets--Cross-wave
H13ATOTA H13ATOTA:W13 Total of all Assets--Cross-wave
        H5HHRES:W5 Number of people in HH
H5HHRES
        H6HHRES:W6 Number of people in HH
H6HHRES
         H7HHRES:W7 Number of people in HH
H7HHRES
         H8HHRES: W8 Number of people in HH
H8HHRES
H9HHRES
         H9HHRES: W9 Number of people in HH
H10HHRES H10HHRES: W10 Number of people in HH
H11HHRES H11HHRES:W11 Number of people in HH
H12HHRES H12HHRES: W12 Number of people in HH
H13HHRES H13HHRES:W13 Number of people in HH
H5ITOT H5ITOT: W5 Incm: Total HHold / R+Sp only
H6ITOT
         H6ITOT:W6 Incm: Total HHold / R+Sp only
H7ITOT H7ITOT:W7 Incm: Total HHold / R+Sp only
H8ITOT
         H8ITOT: W8 Incm: Total HHold / R+Sp only
         H9ITOT: W9 Incm: Total HHold / R+Sp only
H9TTOT
H10ITOT H10ITOT: W10 Incm: Total HHold / R+Sp only
        H11ITOT:W11 Incm: Total HHold / R+Sp only
H11ITOT
         H12ITOT:W12 Incm: Total HHold / R+Sp only
H12ITOT
H13ITOT
        H13ITOT:W13 Incm: Total HHold / R+Sp only
```

#### **CAMS Variables Used**

```
CAMS 2001:
   B2 01
                   B2. BUY REFRIGERATOR
   B2A_01
                  B2A. REFRIGERATOR PRICE
   B3_01
                  B3. BUY WASHER/DRYER
   B3A_01
                  B3A. WASHER/DRYER PRICE
   B4 01
                  B4. BUY DISWASHER
                 B4A. DISHWASHER PRICE
   B4A_01
   B5 01
                  B5. BUY TELEVISION
   B5A 01
                  B5A. TELEVISION PRICE
                  B6. BUY COMPUTER
   B6 01
   B6A_01
                  B6A. COMPUTER PRICE
CAMS 2003:
   B2_03
                  B2. BUY REFRIGERATOR
   B2A_03
                   B2A. REFRIGERATOR PRICE
   B3 03
                   B3. BUY WASHER/DRYER
   B3A_03
                  B3A. WASHER/DRYER PRICE
                  B4. BUY DISWASHER
   B4_03
   B4A_03
                  B4A. DISHWASHER PRICE
   B5_03
                  B5. BUY TELEVISION
                 B5A. TELEVISION PRICE
   B5A_03
   B6_03
                  B6. BUY COMPUTER
   B6A_03
                  B6A. COMPUTER PRICE
CAMS 2005:
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	_
B2_05	B2. BUY REFRIGERATOR
B2A_05	B2A. REFRIGERATOR PRICE
B3_05	B3. BUY WASHER/DRYER
B3A_05	B3A. WASHER/DRYER PRICE
B4_05	B4. BUY DISWASHER
B4A_05	B4A. DISHWASHER PRICE
B5_05	B5. BUY TELEVISION
B5A_05	B5A. TELEVISION PRICE
В6_05	B6. BUY COMPUTER
B6A 05	B6A. COMPUTER PRICE
CAMS 2007:	
B2_07	B2. BUY REFRIGERATOR
<del>-</del>	
B2A_07	B2A. REFRIGERATOR PRICE
В3_07	B3. BUY WASHER/DRYER
B3A_07	B3A. WASHER/DRYER PRICE
B4_07	B4. BUY DISWASHER
B4A_07	B4A. DISHWASHER PRICE
B5_07	B5. BUY TELEVISION
B5A_07	B5A. TELEVISION PRICE
	B6. BUY COMPUTER
B6_07	
B6A_07	B6A. COMPUTER PRICE
CAMS 2009:	
B2_09	B2. BUY REFRIGERATOR
B2A_09	B2A. REFRIGERATOR PRICE
B3_09	B3. BUY WASHER/DRYER
B3A_09	B3A. WASHER/DRYER PRICE
B4_09	B4. BUY DISWASHER
B4A_09	B4A. DISHWASHER PRICE
<del>-</del>	
B5_09	B5. BUY TELEVISION
B5A_09	B5A. TELEVISION PRICE
B6_09	B6. BUY COMPUTER
B6A_09	B6A. COMPUTER PRICE
CAMS 2011:	
B2_11	B2. BUY REFRIGERATOR
 B2A_11	B2A. REFRIGERATOR PRICE
B3_11	B3. BUY WASHER/DRYER
B3A_11	B3A. WASHER/DRYER PRICE
B4_11	B4. BUY DISWASHER
B4A_11	B4A. DISHWASHER PRICE
B5_11	B5. BUY TELEVISION
B5A_11	B5A. TELEVISION PRICE
B6_11	B6. BUY COMPUTER
B6A_11	B6A. COMPUTER PRICE
CAMS 2013:	
B2_13	B2. BUY REFRIGERATOR
B2A_13	B2A. REFRIGERATOR PRICE
В3_13	B3. BUY WASHER/DRYER
B3A_13	B3A. WASHER/DRYER PRICE
B4_13	B4. BUY DISWASHER
B4A_13	B4A. DISHWASHER PRICE
B5_13	B5. BUY TELEVISION
B5A_13	B5A. TELEVISION PRICE
B6_13	B6. BUY COMPUTER
B6A_13	
<del>-</del>	B6A. COMPUTER PRICE
CAMS 2015:	DO DIW DEED - 2
B2_15	B2. BUY REFRIGERATOR
B2A_15	B2A. REFRIGERATOR PRICE
B3_15	
D3_13	B3. BUY WASHER/DRYER
B3A_15	B3. BUY WASHER/DRYER B3A. WASHER/DRYER PRICE

B4_15	B4. BUY DISWASHER
B4A_15	B4A. DISHWASHER PRICE
B5_15	B5. BUY TELEVISION
B5A_15	B5A. TELEVISION PRICE
B6_15	B6. BUY COMPUTER
B6A 15	B6A. COMPUTER PRICE

## 2.16 Total Transportation Consumption

Wave	Variable	Label	Type
5	H5CTRANSC	H5CTRANSC:W5 CAMS: Total Hhold Transportation Consumption	Cont
6	H6CTRANSC	H6CTRANSC:W6 CAMS: Total Hhold Transportation Consumption	Cont
7	H7CTRANSC	H7CTRANSC:W7 CAMS: Total Hhold Transportation Consumption	Cont
8	H8CTRANSC	H8CTRANSC: W8 CAMS: Total Hhold Transportation Consumption	Cont
9	H9CTRANSC	H9CTRANSC: W9 CAMS: Total Hhold Transportation Consumption	Cont
10	H10CTRANSC	H10CTRANSC:W10 CAMS: Total Hhold Transportation Consumption	Cont
11	H11CTRANSC	H11CTRANSC:W11 CAMS: Total Hhold Transportation Consumption	Cont
12	H12CTRANSC	H12CTRANSC:W12 CAMS: Total Hhold Transportation Consumption	Cont

## **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
W5 000 1 110 0	0.000	4000 54	4604 40	0 0	45000
H5CTRANSC	3789	4803.54	4691.49	0.0	47229.0
H6CTRANSC	3224	4770.68	4551.88	0.0	57012.0
H7CTRANSC	3832	5221.08	5609.30	0.0	86633.0
H8CTRANSC	3704	5273.79	5195.97	0.0	64820.0
H9CTRANSC	3550	4826.65	4866.14	0.0	67657.0
H10CTRANSC	4319	5244.72	5061.46	0.0	69087.0
H11CTRANSC	4017	4935.70	4686.63	0.0	52755.0
H12CTRANSC	3689	4627.97	4770.72	0.0	55915.0

#### **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 "1.7 Components of Household Spending and Consumption." Consumption variables for 2017 are not calculated for the RAND HRS CAMS Data File 2017 (V1) because the imputation of these variables relies on HRS 2018 core data for house value and transportation value, which are not yet available. The next version of the RAND HRS CAMS Data File will be published once the HRS 2018 early release data has been released, and will incorporate the CAMS 2017 consumption variables.

#### **How Constructed**

HwCTRANSC is composed of automobile usage and spending on gasoline. 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 section "1.7 Components of Household Spending and Consumption" for details.

## RAND HRS Longitudinal File 2016 (V1) Variables Used

```
RABYEAR: R birth year
RAEDUC
         RAEDUC: R education (categ)
RAGENDER RAGENDER: R Gender
H5ATOTA H5ATOTA:W5 Total of all Assets--Cross-wave
H6ATOTA H6ATOTA:W6 Total of all Assets--Cross-wave
H7ATOTA H7ATOTA: W7 Total of all Assets--Cross-wave
H8ATOTA H8ATOTA: W8 Total of all Assets--Cross-wave
H9ATOTA H9ATOTA: W9 Total of all Assets--Cross-wave
H10ATOTA H10ATOTA:W10 Total of all Assets--Cross-wave
H11ATOTA H11ATOTA: W11 Total of all Assets--Cross-wave
H12ATOTA H12ATOTA:W12 Total of all Assets--Cross-wave
H13ATOTA H13ATOTA:W13 Total of all Assets--Cross-wave
        H5ATRAN:W5 Assets:Transportation--Cross-wave
H5ATRAN
H6ATRAN
         H6ATRAN:W6 Assets:Transportation--Cross-wave
         H7ATRAN:W7 Assets:Transportation--Cross-wave
H7ATRAN
H8ATRAN
         H8ATRAN: W8 Assets: Transportation -- Cross-wave
H9ATRAN
         H9ATRAN: W9 Assets: Transportation -- Cross-wave
H10ATRAN H10ATRAN: W10 Assets: Transportation -- Cross-wave
H11ATRAN H11ATRAN: W11 Assets: Transportation -- Cross-wave
H12ATRAN H12ATRAN: W12 Assets: Transportation -- Cross-wave
H13ATRAN H13ATRAN: W13 Assets: Transportation -- Cross-wave
H5HHRES
        H5HHRES:W5 Number of people in HH
        H6HHRES:W6 Number of people in HH
H6HHRES
        H7HHRES:W7 Number of people in HH
H7HHRES
        H8HHRES: W8 Number of people in HH
H8HHRES
         H9HHRES:W9 Number of people in HH
H9HHRES
H10HHRES H10HHRES: W10 Number of people in HH
H11HHRES: W11 Number of people in HH
H12HHRES H12HHRES:W12 Number of people in HH
H13HHRES H13HHRES:W13 Number of people in HH
H5ITOT
         H5ITOT:W5 Incm: Total HHold / R+Sp only
H6ITOT
         H6ITOT:W6 Incm: Total HHold / R+Sp only
H7ITOT
         H7ITOT:W7 Incm: Total HHold / R+Sp only
H8ITOT
         H8ITOT: W8 Incm: Total HHold / R+Sp only
         H9ITOT:W9 Incm: Total HHold / R+Sp only
H9ITOT
H10ITOT H10ITOT: W10 Incm: Total HHold / R+Sp only
H11ITOT
        H11ITOT:W11 Incm: Total HHold / R+Sp only
        H12ITOT:W12 Incm: Total HHold / R+Sp only
H12TTOT
H13ITOT
        H13ITOT:W13 Incm: Total HHold / R+Sp only
```

#### **CAMS Variables Used**

```
CAMS 2001:
   B1_01
                   B1. PURCHASE/LEASE AUTO
   B1A_3_01
                   B1A_3. AUTO YEAR - 1
                   B1A_4. AUTO PRICE - 1
   B1A_4_01
   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. AUTO PRICE - 3
   B1C_4_01
                   B16. AUTO INSURANCE
   B16_01
                  B16A. AUTO INSUR - PER
   B16A_01
   B23_01
                  B23. GASOLINE
   B23A_01
                  B23A. GASOLINE - PER
CAMS 2003:
   B1_03
                   B1. PURCHASE/LEASE AUTO
```

```
B1A3_03
                    B1A3. AUTO YEAR - 1
                    B1A4. AUTO PRICE - 1
   B1A4_03
   B1A5_03
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_03
                    B1B3. AUTO YEAR - 2
   B1B4_03
                    B1B4. AUTO PRICE - 2
   B1B5_03
                    B1B5. AUTO/TRUCK NEW OR USED - 2
                    B1C3. AUTO YEAR - 3
   B1C3_03
   B1C4_03
                    B1C4. AUTO PRICE - 3
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_03
   B9_03
                    B9. VEHICLE INSURANCE
    B38_03
                    B38. GASOLINE
                    B38A. GASOLINE - PER
   B38A_03
CAMS 2005:
   B1_05
                    B1. PURCHASE/LEASE AUTO
   B1A3_05
                    B1A3. AUTO YEAR - 1
   B1A4_05
                    B1A4. AUTO PRICE - 1
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_05
   B1B3_05
                    B1B3. AUTO YEAR - 2
                    B1B4. AUTO PRICE - 2
   B1B4_05
   B1B5_05
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_05
                    B1C3. AUTO YEAR - 3
                    B1C4. AUTO PRICE - 3
   B1C4_05
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_05
                    B9. VEHICLE INSURANCE
   B9_05
   B39_05
                    B39. GASOLINE
   B39A_05
                    B39A. GASOLINE - PER
CAMS 2007:
   B1 07
                    B1. PURCHASE/LEASE AUTO
                    B1A3. AUTO YEAR - 1
   B1A3_07
                    B1A4. AUTO PRICE - 1
   B1A4_07
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_07
                    B1B3. AUTO YEAR - 2
   B1B3_07
   B1B4_07
                    B1B4. AUTO PRICE - 2
   B1B5_07
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_07
                    B1C3. AUTO YEAR - 3
   B1C4_07
                    B1C4. AUTO PRICE - 3
   B1C5_07
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_07
                    B9. VEHICLE INSURANCE
   B39_07
                    B39. GASOLINE
   B39A_07
                    B39A. GASOLINE - PER
CAMS 2009:
                    B1. PURCHASE/LEASE AUTO
   B1_09
   B1A3 09
                    B1A3. AUTO YEAR - 1
   B1A4 09
                    B1A4. AUTO PRICE - 1
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1A5_09
                    B1B3. AUTO YEAR - 2
   B1B3_09
                    B1B4. AUTO PRICE - 2
   B1B4_09
   B1B5_09
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_09
                    B1C3. AUTO YEAR - 3
   B1C4 09
                    B1C4. AUTO PRICE - 3
   B1C5_09
                    B1C5. AUTO/TRUCK NEW OR USED - 3
                    B9. VEHICLE INSURANCE
   B9 09
   B39_09
                    B39. GASOLINE
   B39A_09
                    B39A. GASOLINE - PER
CAMS 2011:
   B1 11
                    B1. PURCHASE/LEASE AUTO
                    B1A3. AUTO YEAR - 1
   B1A3_11
   B1A4_11
                    B1A4. AUTO PRICE - 1
   B1A5_11
                    B1A5. AUTO/TRUCK NEW OR USED - 1
```

```
B1B3. AUTO YEAR - 2
   B1B3_11
   B1B4_11
                    B1B4. AUTO PRICE - 2
   B1B5_11
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1C3_11
                    B1C3. AUTO YEAR - 3
   B1C4_11
                    B1C4. AUTO PRICE - 3
   B1C5_11
                    B1C5. AUTO/TRUCK NEW OR USED - 3
                    B9. VEHICLE INSURANCE
   B9_11
   B39_11
                    B39. GASOLINE
   B39A_11
                   B39A. GASOLINE - PER
CAMS 2013:
   B1_13
                    B1. PURCHASE/LEASE AUTO
   B1A3_13
                    B1A3. AUTO YEAR - 1
   B1A4_13
                    B1A4. AUTO PRICE - 1
   B1A5_13
                    B1A5. AUTO/TRUCK NEW OR USED - 1
                    B1B3. AUTO YEAR - 2
   B1B3_13
                    B1B4. AUTO PRICE - 2
   B1B4_13
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_13
                    B1C3. AUTO YEAR - 3
   B1C3_13
   B1C4_13
                    B1C4. AUTO PRICE - 3
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B1C5_13
   B9_13
                    B9. VEHICLE INSURANCE
                    B39. GASOLINE
   B39_13
                   B39A. GASOLINE - PER
   B39A_13
CAMS 2015:
   B1_15
                    B1. PURCHASE/LEASE AUTO
   B1A3_15
                    B1A3. AUTO YEAR - 1
                    B1A4. AUTO PRICE - 1
   B1A4_15
   B1A5_15
                    B1A5. AUTO/TRUCK NEW OR USED - 1
   B1B3_15
                    B1B3. AUTO YEAR - 2
                    B1B4. AUTO PRICE - 2
   B1B4_15
                    B1B5. AUTO/TRUCK NEW OR USED - 2
   B1B5_15
                    B1C3. AUTO YEAR - 3
   B1C3_15
   B1C4_15
                    B1C4. AUTO PRICE - 3
   B1C5_15
                    B1C5. AUTO/TRUCK NEW OR USED - 3
   B9_15
                    B9. VEHICLE INSURANCE
   B39_15
                    B39. GASOLINE
   B39A_15
                    B39A. GASOLINE - PER
```

## 2.17 Total Housing Consumption

Wave	Variable	Label	Type
5	H5CHOUSC	H5CHOUSC:W5 CAMS: Total Hhold Housing Consumption	Cont
6	H6CHOUSC	H6CHOUSC:W6 CAMS: Total Hhold Housing Consumption	Cont
7	H7CHOUSC	H7CHOUSC:W7 CAMS: Total Hhold Housing Consumption	Cont
8	H8CHOUSC	H8CHOUSC:W8 CAMS: Total Hhold Housing Consumption	Cont
9	H9CHOUSC	H9CHOUSC:W9 CAMS: Total Hhold Housing Consumption	Cont
10	H10CHOUSC	H10CHOUSC:W10 CAMS: Total Hhold Housing Consumption	Cont
11	H11CHOUSC	H11CHOUSC:W11 CAMS: Total Hhold Housing Consumption	Cont
12	H12CHOUSC	H12CHOUSC:W12 CAMS: Total Hhold Housing Consumption	Cont
5	H5CHMEQF	H5CHMEQF:W5 CAMSFlag: Home Rental Equivalent	Categ
6	H6CHMEQF	H6CHMEQF:W6 CAMSFlag: Home Rental Equivalent	Categ
7	H7CHMEQF	H7CHMEQF:W7 CAMSFlag: Home Rental Equivalent	Categ
8	H8CHMEQF	H8CHMEQF:W8 CAMSFlag: Home Rental Equivalent	Categ
9	H9CHMEQF	H9CHMEQF:W9 CAMSFlag: Home Rental Equivalent	Categ
10	H10CHMEQF	H10CHMEQF:W10 CAMSFlag: Home Rental Equivalent	Categ
11	H11CHMEQF	H11CHMEQF:W11 CAMSFlag: Home Rental Equivalent	Categ
12	H12CHMEQF	H12CHMEQF:W12 CAMSFlag: Home Rental Equivalent	Categ

# **Descriptive Statistics**

Variable	N	Mean	Std Dev	Minimum	Maximum
H5CHOUSC	3789	15615.07	15295.19	60.0	255165.0
H6CHOUSC	3224	16190.54	14994.42	48.0	148299.0
H7CHOUSC	3832	17754.54	17494.36	0.0	217132.0
H8CHOUSC	3704	20184.72	20423.35	17.0	271662.0
H9CHOUSC	3550	18990.25	20281.97	51.0	475622.0
H10CHOUSC	4319	15734.48	16959.26	32.0	406815.0
H11CHOUSC	4017	14654.68	14340.19	27.0	226295.0
H12CHOUSC	3689	15742.25	16237.81	25.0	183191.0
H5CHMEQF	3789	2.77	1.23	0.0	6.0
H6CHMEQF	3224	2.82	1.23	0.0	6.0
H7CHMEQF	3832	2.73	1.30	0.0	6.0
H8CHMEQF	3704	2.76	1.33	0.0	6.0
H9CHMEQF	3550	2.80	1.36	0.0	6.0
H10CHMEQF	4319	2.66	1.47	0.0	6.0
H11CHMEQF	4017	2.64	1.48	0.0	6.0
H12CHMEQF	3689	2.63	1.50	0.0	6.0

## **Categorical Variable Codes**

		HwCHMEQ	F: CAMSF	lag: Home	e Rental	. Equival	ent.				
Value	ı	w1	w2	w3	w4	w5	w6	w7	w8	w9	w10
.T Resp <10 cat						77	30	47	34	37	51
0. Renter	- 1					458	359	523	507	491	763
1. Homeowner: val from prev	- 1					82	60	98	77	64	102
2. Homeowner: val from foll	- 1					34	34	36	49	39	35
3. Homeowner: val from prev	- 1					2792	2410	2740	2610	2455	2875
4. Own trans: half of val f	- 1					210	157	198	201	226	193
5. Homeowner: no val from p	- 1					133	110	137	141	137	173
6. Not renter or homeowner	I					80	94	100	119	138	178
Value	ı	w11	w12	w13							
.T Resp <10 cat		50	48								
0. Renter	ì	741	699								
1. Homeowner: val from prev	ì	83	100								
2. Homeowner: val from foll	Ì	48	36								
3. Homeowner: val from prev	Ì	2616	2322								
4. Own trans: half of val f	Ì	203	238								
5. Homeowner: no val from p	Ì	174	151								
6. Not renter or homeowner	Ì	152	143								

#### **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 "1.6 Spending versus Consumption." Consumption variables for 2017 are not calculated for the RAND HRS CAMS Data File 2017 (V1) because the imputation of these variables relies on HRS 2018 core data for house value and transportation value, which are not yet available. The next version of the RAND HRS CAMS Data File will be published once the HRS 2018 early release data has been released, and will incorporate the CAMS 2017 consumption variables.

#### **How Constructed**

HwCHOUSC is composed of spending on rent, property taxes, home/renters insurance and a derived measure of home rental equivalent. 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 section "1.7 Components of Household Spending and Consumption" for details.

For renters, HwCHOUSC 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.

HwCHMEQF 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 (HwCHMEQF=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 (HwCHMEQF=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 (HwCHMEQF=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 (HwCHMEQF=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 (HwCHMEQF=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 (HwCHMEOF=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 (HwCHMEQF=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 section "1.7 Components of Household Spending and Consumption."

### RAND HRS Longitudinal File 2016 (V1) Variables Used

```
RABYEAR
          RABYEAR: R birth year
RAEDUC
         RAEDUC: R education (categ)
RAGENDER
         RAGENDER: R Gender
H5AHOUS
         H5AHOUS:W5 Assets:Primary Residence--Cross-wave
         H6AHOUS:W6 Assets:Primary Residence--Cross-wave
H6AHOUS
H7AHOUS
         H7AHOUS:W7 Assets:Primary Residence--Cross-wave
H8AHOUS
         H8AHOUS: W8 Assets: Primary Residence -- Cross-wave
H9AHOUS
         H9AHOUS: W9 Assets: Primary Residence -- Cross-wave
H10AHOUS H10AHOUS: W10 Assets: Primary Residence -- Cross-wave
H11AHOUS H11AHOUS:W11 Assets:Primary Residence--Cross-wave
H12AHOUS H12AHOUS:W12 Assets:Primary Residence--Cross-wave
H13AHOUS H13AHOUS:W13 Assets:Primary Residence--Cross-wave
H5ATOTA
         H5ATOTA:W5 Total of all Assets--Cross-wave
         H6ATOTA:W6 Total of all Assets--Cross-wave
н6АТОТА
Н7АТОТА
         H7ATOTA:W7 Total of all Assets--Cross-wave
ATOTA
         H8ATOTA:W8 Total of all Assets--Cross-wave
Н9АТОТА
         H9ATOTA: W9 Total of all Assets--Cross-wave
H10ATOTA
         H10ATOTA: W10 Total of all Assets--Cross-wave
H11ATOTA
         H11ATOTA: W11 Total of all Assets--Cross-wave
H12ATOTA H12ATOTA: W12 Total of all Assets--Cross-wave
H13ATOTA H13ATOTA:W13 Total of all Assets--Cross-wave
H5HHRES: W5 Number of people in HH
H6HHRES: W6 Number of people in HH
H7HHRES: W7 Number of people in HH
H8HHRES: W8 Number of people in HH
H9HHRES: W9 Number of people in HH
H10HHRES H10HHRES: W10 Number of people in HH
H11HHRES H11HHRES:W11 Number of people in HH
H12HHRES H12HHRES: W12 Number of people in HH
H13HHRES H13HHRES: W13 Number of people in HH
```

```
H5ITOT:W5 Incm: Total HHold / R+Sp only
H5ITOT
         H6ITOT:W6 Incm: Total HHold / R+Sp only
H6ITOT
H7ITOT
         H7ITOT:W7 Incm: Total HHold / R+Sp only
TOTI8H
         H8ITOT: W8 Incm: Total HHold / R+Sp only
H9ITOT
         H9ITOT: W9 Incm: Total HHold / R+Sp only
         H10ITOT:W10 Incm: Total HHold / R+Sp only
H10ITOT
         H11ITOT:W11 Incm: Total HHold / R+Sp only
H11ITOT
         H12ITOT:W12 Incm: Total HHold / R+Sp only
H12ITOT
H13ITOT
         H13ITOT:W13 Incm: Total HHold / R+Sp only
```

#### **CAMS Variables Used**

```
CAMS 2001:
   B8_01
                   B8. HOME/RENT INS.
   B8A_01
                   B8A. HOME/RENT INS - PER
   B9_01
                   B9. PROPERTY TAX
   B9A_01
                   B9A. PROPERTY TAX - PER
   B10_01
                   B10. RENT
                  B10A. RENT - PER
   B10A_01
                  B19. HOME MAINTAIN
   B19_01
   B19A_01
                  B19A. HOME MAINTAIN - PER
CAMS 2003:
   B7_03
                  B7. HOME/RENTERS INSURANCE
                  B8. PROPERTY TAXES
   B8_03
   B14 03
                  B14. RENT
                  B14A. RENT - PER
   B14A_03
   B24_03
                  B24. HOME REPAIRS/MAINTENANCE DIY
                   B24A. HOME REPAIRS/MAINTENANCE DIY - PER
   B24A_03
   B25_03
                   B25. HOME REPAIRS/MAINTENANCE SERVICES
   B25A_03
                   B25A. HOME REPAIRS/MAINTENANCE SERVICE - PER
CAMS 2005:
   B7 05
                   B7. HOME/RENTERS INSURANCE
   B8_05
                   B8. PROPERTY TAXES
   B13_05
                   B13. HOME REPAIRS/MAINTENANCE DIY
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14_05
   B19_05
                   B19. RENT
   B19A_05
                   B19A. RENT - PER
CAMS 2007:
   В7 07
                  B7. HOME/RENTERS INSURANCE
                  B8. PROPERTY TAXES
   B8 07
   B13_07
                  B13. HOME REPAIRS/MAINTENANCE DIY
   B14_07
                  B14. HOME REPAIRS/MAINTENANCE SERVICES
   B19_07
                   B19. RENT
   B19A_07
                   B19A. RENT - PER
CAMS 2009:
   B7_09
                   B7. HOME/RENTERS INSURANCE
   B8 09
                   B8. PROPERTY TAXES
   B13_09
                   B13. HOME REPAIRS/MAINTENANCE DIY
   B14_09
                   B14. HOME REPAIRS/MAINTENANCE SERVICES
   B19_09
                   B19. RENT
   B19A_09
                  B19A. RENT - PER
CAMS 2011:
                  B7. HOME/RENTERS INSURANCE
   B7_11
   B8 11
                  B8. PROPERTY TAXES
   B13 11
                  B13. HOME REPAIRS/MAINTENANCE DIY
                  B14. HOME REPAIRS/MAINTENANCE SERVICES
   B14 11
   B19_11
                   B19. RENT
                   B19A. RENT - PER
   B19A_11
```

CAMS 2013:	
в7_13	B7. HOME/RENTERS INSURANCE
B8_13	B8. PROPERTY TAXES
B13_13	B13. HOME REPAIRS/MAINTENANCE DIY
B14_13	B14. HOME REPAIRS/MAINTENANCE SERVICES
B19_13	B19. RENT
B19A_13	B19A. RENT - PER
CAMS 2015:	
B7_15	B7. HOME/RENTERS INSURANCE
B8_15	B8. PROPERTY TAXES
B13_15	B13. HOME REPAIRS/MAINTENANCE DIY
B14_15	B14. HOME REPAIRS/MAINTENANCE SERVICES
B19_15	B19. RENT
B19A_15	B19A. RENT - PER