

CONSUMER EXPENDITURE INTERVIEW SURVEY
PUBLIC USE MICRODATA
2011 User's Documentation
September 25, 2012

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I. INTRODUCTION

The Consumer Expenditure Survey (CE) program provides a continuous and comprehensive flow of data on the buying habits of American consumers. These data are used widely in economic research and analysis, and in support of revisions of the Consumer Price Index. To meet the needs of users, the Bureau of Labor Statistics (BLS) produces population estimates for consumer units (CUs) of average expenditures in news releases, reports, issues, and articles in the Monthly Labor Review. Tabulated CE data are also available on the Internet and by facsimile transmission (See [Section XV. APPENDIX 4](#)). The microdata are available on the public BLS website for free download.

These microdata files present detailed expenditure and income data from the Interview component of the CE for 2011 and the first quarter of 2012. The Interview survey collects data on up to 95 percent of total household expenditures. In addition to the FMLY, MEMB, MTBI, FPAR, MCHI, ITBI, and ITII files, the microdata include files created directly from the expenditure sections of the Interview survey (EXPN files). The EXPN files contain expenditure data and ancillary descriptive information, often not available on the FMLY or MTBI files, in a format similar to the Interview questionnaire. In addition to the extra information available on the EXPN files, users can identify distinct spending categories easily and reduce processing time due to the organization of the files by type of expenditure. Starting in 2009, the FPAR and MCHI files are included. These files include paradata, which is data about the interview survey process.

Estimates of average expenditures in 2011 from the Interview Survey, integrated with data from the Diary Survey, will be published online in CE annual reports. A number of recent publications containing data from the CE are available on the public website as well.

The microdata files are in the public domain and, with appropriate credit, may be reproduced without permission. A suggested citation is: "U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, Interview Survey, 2011."

II. CHANGES FROM THE 2010 MICRODATA FILES

A. FMLY file

Variable Additions

Beginning in 2011Q2, the following variables will be added to the data:

Variable name	Description	Format
HIGH_EDU	Highest level of education within the CU 00 Never Attended 10 1 st -8 th Grade 11 9 th -12 th Grade (no high school diploma) 12 HS Graduate 13 Some college, no degree 14 AA degree 15 Bachelors degree 16 Masters degree 17 Professional/doctorate degree	CHAR(2)
BUILT	The year range that the property was built: REPORTED IN RANGE: VALUE OF BUILT 1919 OR OLDER 1919 1920-1924 1920 1925-1929 1925	CHAR(4)

	1930-1934	1930	
	1935-1939	1935	
	1940-1944	1940	
	1945-1949	1945	
	1950-1954	1950	
	1955-1959	1955	
	1960-1964	1960	
	1965-1969	1965	
	1970-1974	1970	
	1975-1979	1975	
	1980-1984	1980	
	1985-1989	1985	
	1990 OR NEWER	AS SPECIFIED	
BUILT_	BUILT Flag		CHAR(1)

Variable Deletions

Beginning in 2011Q1, the following FMLY variables will be deleted from the data:

Variable name	Description
YRBUILT	About when was this building built?
YRBUILT_	YRBUILT Flag
ERNKMTHM	Outlay variable with imputed data (this information is in ETOTALP and ETOTALC)
ERANKMTH	Outlay variable

Variable Changes

Beginning in 2011Q2, the following variable will be changed in the data:

Variable name	Description
HORREF1	The following Hispanic codes deleted 7 – Central or South American 8 – Other group not listed The following Hispanic code renamed 6 – Other groups not listed
HORREF2	The following Hispanic codes deleted 7 – Central or South American 8 – Other group not listed The following Hispanic code renamed 6 – Other groups not listed
CKBKACTX	Old wording: On the last day of (last month), what was the total amount your CU had in checking accounts, brokerage accounts and other similar account? New wording: On the last day of (last month), what was the total balance or market value (including interest earned) of checking accounts, brokerage accounts or other similar accounts
SAVACCTX	Old wording: On the last day of (last month), what was the total amount

	<p>your CU had in saving accounts in banks, savings and loans, credit unions, and similar accounts?</p> <p>New wording: On the last day of (last month), what was the total balance or market value (including interest earned) of savings accounts in banks, savings and loans, credit unions and similar accounts?</p>
USBNDX	<p>Old wording: On the last day of (last month), what was the total amount your CU had in U.S. Savings bonds?</p> <p>New wording: On the last day of (last month), what was the total balance or market value (including interest earned) of U.S. Savings bonds?</p>
FININCX	<p>Old wording: During the past 12 months what was the total amount of regular income from dividends, royalties, estates, or trusts received by ALL CU members?</p> <p>New wording: During the past 12 months what was the total amount of regular income from dividends, royalties, estates, or trusts earned by ALL household members?</p>
INTEARNX	<p>Old wording: During the past 12 months what was the total amount of regular income from interest on savings accounts or bonds received by ALL CU members?</p> <p>New wording: During the past 12 months what was the total amount of regular income from interest on savings accounts or bonds earned by ALL household members?</p>
PUBTRAPQ	<p>Old wording: Public transportation</p> <p>New wording: Public and other transportation</p>
PUBTRACQ	<p>Old wording: Public transportation</p> <p>New wording: Public and other transportation</p>
TRNTRPPQ	<p>Old wording: Public transportation</p> <p>New wording:</p>

	Public and other transportation
TRNTRPCQ	Old wording: Public transportation New wording: Public and other transportation
ETRANPTP	Old wording: Public transportation New wording: Public and other transportation
ETRANPTC	Old wording: Public transportation New wording: Public and other transportation

B. MEMB file

Variable Changes

Beginning in 2011Q2, the following MEMB variables will be changed in the data:

Variable name	Description of change
HISPANIC	The following Hispanic codes deleted 7 – Central or South American 8 – Other group not listed The following Hispanic code renamed 6 – Other groups not listed

C. FPAR file

Variable Additions

Beginning in 2011Q2, the following FPAR variables will be added in the data:

Variable name	Description	Format
RESPCOOP	How cooperative was this respondent during this interview? 1 Very cooperative 2 Somewhat cooperative 3 Neither cooperative nor uncooperative 4 Somewhat uncooperative	CHAR(1)
RESPEFF	How much effort did the respondent put into the interview? 1 A lot of effort (e.g., looked at a lot of bills, read the information book, asked clarifying questions) 2 Moderate effort (e.g., looked at a few	CHAR(1)

	<p>bills, seemed to skim information book)</p> <p>3 Bare minimum effort (e.g., gave answers without much apparent thought, no consultation of records or information book)</p>	
EFFCHG	<p>Did the respondent's level of effort change during the interview?</p> <p>1 Increased</p> <p>2 Decreased</p> <p>3 Stayed the same</p> <p>4 Don't know for sure</p>	CHAR(1)
CHGPNT	<p>At about what point in the interview did the respondent's level of effort change?</p> <p>1 Within the first 15 minutes</p> <p>2 15 to 30 minutes into the interview</p> <p>3 30 to 45 minutes into the interview</p> <p>4 45 to 60 minutes into the interview</p> <p>5 At a specific section</p> <p>6 Other</p>	CHAR(1)
CHGST_SP	<p>01 Section 1 General Housing Characteristics</p> <p>02 Section 2 Rented Living Quarters</p> <p>03 Section 3 Owned Living Quarters</p> <p>04 Section 4 Utilities and Fuels for Owned and Rented Properties</p> <p>05 Section 5 Construction, Repairs, Alterations, and Maintenance of Property</p> <p>06 Section 6 Appliances, Household Equipment, and Other Selected Items</p> <p>07 Section 7 Household Item Repairs and Service Contracts</p> <p>08 Section 8 Household Furnishings and Related Household Items</p> <p>09 Section 9 Clothing</p> <p>10 Section 10 Rented and Leased Vehicles</p> <p>11 Section 11 Owned Vehicles</p> <p>12 Section 12 Vehicle Maintenance, Repair, and Operating Expenses</p> <p>13 Section 13 Non-Health Insurance</p> <p>14 Section 14 Hospitalization and Health Insurance</p> <p>15 Section 15 Medical Expenses and Reimbursements</p> <p>16 Section 16 Educational Expenses</p> <p>17 Section 17 Subscriptions, Memberships, and Entertainment Expenses</p> <p>18 Section 18 Trips and Vacations</p> <p>19 Section 19 Miscellaneous Expenses and Contributions</p> <p>20 Section 20 Expense Patterns for Food,</p>	CHAR(2)

	Beverages, and Other Selected Items 21 Section 21 Credit Card Balances 22 Section 22 Work Experience and Income	
RESPINFO	Did the respondent get information from other household members when answering the questions? 1 Yes 2 No 3 Don't know	CHAR(1)
OTHSEC01	Other household members provided information for Sections 2 and 3 Housing – rent, mortgage, home equity loans	CHAR(2)
OTHSEC02	Other household members provided information for Section 4 Utilities/Communications (electricity, heating, telephone, cable, internet)	CHAR(2)
OTHSEC03	Other household members provided information for Section 6 Appliances	CHAR(2)
OTHSEC04	Other household members provided information for Section 8 Home Furnishings	CHAR(2)
OTHSEC05	Other household members provided information for Section 9 Clothing	CHAR(2)
OTHSEC06	Other household members provided information for Sections 10, 11, and 12 Vehicle Expenses	CHAR(2)
OTHSEC07	Other household members provided information for Sections 13 and 14 Insurance	CHAR(2)
OTHSEC08	Other household members provided information for Section 15 Medical/Health Expenses	CHAR(2)
OTHSEC09	Other household members provided information for Section 18 Trips and Vacations	CHAR(2)
OTHSEC10	Other household members provided information for Section 22 Work Experience and Income	CHAR(2)
RESPDIFF	Did the respondent have any difficulty answering any of the questions during the interview? 1 Yes 2 No	
DIFTYP1	The respondent had difficulty remembering the expenditure item	CHAR(1)
DIFTYP2	The respondent had difficulty remembering the expenditure price	CHAR(1)
DIFTYP3	The respondent had difficulty remembering the expenditure details (e.g., date, for whom)	CHAR(1)
DIFTYP4	The respondent had difficulty understanding the question	CHAR(1)
DIFTYP5	The respondent had did not know the expenditure information (items, price, or details)	CHAR(1)
DIFTYP6	The respondent had other difficulties	CHAR(1)
DIFSEC1	For which section did the respondent seem to have the most difficulty? 01-22	CHAR(2)
DIFSEC2	For which section did the respondent seem to	CHAR(2)

	have the most difficulty? 01-22	
DIFSEC3	For which section did the respondent seem to have the most difficulty? 01-22	CHAR(2)
RSCHRECS	Did the respondent hand you any records, bills, or receipts during the interview? 1 Yes 2 No	CHAR(1)
RECINFO	For most of the records, were you able to find the required information (e.g., item description, date, price)? 1 Yes 2 No	CHAR(1)
RECDIFF1	The required expenditure information was not found because the record was unclear, difficult to read	CHAR(1)
RECDIFF2	The required expenditure information was not found because the record did not provide the required level of detail	CHAR(1)
RECDIFF3	The required expenditure information was not found because the record did not match the expenditure categories	CHAR(1)
RECDIFF4	The required expenditure information was not found because of other difficulties.	CHAR(1)
RESPIB	Did you provide the Information Booklet to the respondent? 1 Yes, and respondent used Info Book 2 Yes, but respondent did not use the Info Book 3 No, did not provide Info Book 4 Not a personal visit	CHAR(1)
IBHELPL	During the interview, we referred to a booklet that lists a variety of things you might have purchased. Was this booklet helpful to you? 1 Yes 2 No	CHAR(1)
IBNHLP1	The Information Booklet was not helpful because it was too long	CHAR(1)
IBNHLP2	The Information Booklet was not helpful because it was too hard to use	CHAR(1)
IBNHLP3	The Information Booklet was not helpful because it took too much time to use	CHAR(1)
IBNHLP4	The Information Booklet was not helpful because there were too many examples	CHAR(1)
IBNHLP5	The Information Booklet was not helpful because it was hard to read	CHAR(1)
IBNHLP6	The Information Booklet was not helpful because it was not clear that I was supposed to use it	CHAR(1)
IBNHLP7	The Information Booklet was not helpful because this was not my first interview and I knew what you were going to ask	CHAR(1)

IBNHLP8	The Information Booklet was not helpful because of other	CHAR(1)
NOUSEIB1	I did not use the Information Booklet because it was too long	CHAR(1)
NOUSEIB2	I did not use the Information Booklet because it was too hard to use	CHAR(1)
NOUSEIB3	I did not use the Information Booklet because it took too much time to use	CHAR(1)
NOUSEIB4	I did not use the Information Booklet because there were too many examples	CHAR(1)
NOUSEIB5	I did not use the Information Booklet because it was hard to read	CHAR(1)
NOUSEIB6	I did not use the Information Booklet because it was not clear that I was supposed to use it	CHAR(1)
NOUSEIB7	I did not use the Information Booklet because this was not my first interview and I knew what you were going to ask	CHAR(1)
NOUSEIB8	I did not use the Information Booklet because of other	CHAR(1)
AUTOBLPY	Does your household pay any bills through automatic deductions from a bank account? 1 Yes 2 No	CHAR(1)
FINSOFT	Does your household use any electronic financial software, such as Quicken, or use a website to track your expenses? 1 Yes 2 No	CHAR(1)
FINSFT1	What electronic financial software or website do you use? (First selection) 1 Quicken 2 Microsoft Money 3 Mint.com 4 Bank website 5 Other	CHAR(1)
FINSFT2	What electronic financial software or website do you use? (Second selection) 1 Quicken 2 Microsoft Money 3 Mint.com 4 Bank website 5 Other	CHAR(1)
FINSFT3	What electronic financial software or website do you use? (Third selection) 1 Quicken 2 Microsoft Money 3 Mint.com 4 Bank website 5 Other	CHAR(1)
FINSFT4	What electronic financial software or website do	CHAR(1)

	you use? (Fourth selection)	
	1 Quicken	
	2 Microsoft Money	
	3 Mint.com	
	4 Bank website	
	5 Other	

D. MCHI file

No changes in 2011.

E. MTBI file

UCC Additions

Beginning in 2011Q2, the following UCCs will be added to the MTBI file:

UCC	Title
690119	Computer software
690120	Computer accessories
690118	Digital book readers
310231	Video game software
310232	Video game hardware and accessories
620917	Rental of video hardware/accessories
620918	Rental of video software
310400	Applications, games, ringtones for handheld devices
640430	Adult diapers

UCC Deletions

Beginning in 2011Q2, the following UCCs will be deleted from the MTBI file:

UCC	Title
690112	Computer software and accessories for non-business use
310230	Video and computer game hardware and software
620916	Rental of computer and video game hardware and software
220616	Installed and non-installed original wall to wall carpeting for owned homes
230133	Installed and non-installed replacement wall to wall carpeting for owned homes
230134	Installed and non-installed original wall to wall carpeting for rental homes
320163	Installed and non-installed replacement wall to wall carpeting for rental homes

F. ITBI file

No changes in 2011.

G. EXPN file

RNT

Variable Additions

Beginning in 2011Q2, the following RNT variables will be added in the data:

Variable name	Description	Format
RTTELEPH	Rental payment includes telephone services? 1 – Yes 2 – No	CHAR(1)
RTTE_EPH	RTTELEPH Flag	CHAR(1)
RTTVCABL	Rental payment includes television services? 1 – Yes 2 – No	CHAR(1)
RTTV_ABL	RTTVCABL Flag	CHAR(1)
RTINTRNT	Rental payment includes internet services? 1 – Yes 2 – No	CHAR(1)
RTIN_RNT	RTINTRNT Flag	CHAR(1)
RTFUNSH	Rental payment includes furniture? 1 – Yes 2 – No	CHAR(1)
RTFUNSH_	RTFUNSH Flag	CHAR(1)

OPB

Variable Additions

Beginning in 2011Q2, the following OPB variables will be added in the data:

Variable name	Description	Format
BSNEXP2	Is any part of this owned property rented to someone outside your household or used for business? 1 – Yes 2 – No	CHAR(1)
BSNEXP2_	BSNEXP2 Flag	CHAR(1)

Variable Changes

Beginning in 2011Q2, the following OPB variables will be changed in the data:

Variable name	Description of change
OWNYB	The following property code was added 600 – Residential business property
OWN_PURX	Old wording: What was the total price paid for [this/the property], not including closing costs? Closing costs include the kinds of things listed on page 6. New wording: What was the total price paid for [this/the property], not including closing costs?

OPD

Variable Changes

Beginning in 2011Q2, the following OPD variables will be changed in the data:

Variable name	Description of change
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OWNYD	The following property code was added 600 – Residential business property
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MOR

Variable Changes

Beginning in 2011Q2, the following HEL variables will be changed in the data:

Variable name	Description of change
OWNYF	The following property code was added 600 – Residential business property

HEL

Variable Changes

Beginning in 2011Q2, the following HEL variables will be changed in the data:

Variable name	Description of change
OWNYG	The following property code was added 600 – Residential business property

OPH

Variable Changes

Beginning in 2011Q2, the following OPH variables will be changed in the data:

Variable name	Description of change
OWNYH	The following property code was added 600 – Residential business property

OPI

Variable Additions

Beginning in 2011Q2, the following OPI variables will be added in the data:

Variable name	Description
COOPRG12	The following Co-op fee code was added 12 – Co-op fee includes "No payments made"
COOP_G12	COOPRG12 Flag
VAC_AVAQ	Since The first of the reference period, how much time was this property available to be rented?
VAC__VAQ	VAC_AVAQ Flag
VAC_AVAY	Enter the time period 1 Days 2 Weeks 3 Months 4 Percent 5 Other
VAC__VAY	VAC_AVAY Flag

Variable Changes

Beginning in 2011Q2, the following OPI variables will be changed in the data:

Variable name	Description of change
OWNYI	The following property code was added 600 – Residential business property
RNTEQVX	Old wording: If someone were to rent this home today, how much do you think it would rent for monthly, unfurnished and without utilities? New wording: If someone were to rent this [home/entire property] today, [including part of the property currently being used for business, farming, or rented,] how much do you think it would rent for monthly, unfurnished, and without utilities?
VAC_RNTQ	Old wording: Since the first of the reference period, how much time was this property either rented by someone outside your CU or available to be rented? New wording: Since the first of the reference period, how much time was this property rented by someone outside your household?

UTA

Variable Additions

Beginning in 2011Q2, the following UTA variables will be added in the data:

Variable name	Description	Format
QADAPG1X	Total expense for applications, games, or ringtones three months ago, adjusted for business.	NUM(8)
QADA_G1X	QADAPG1X Flag	CHAR(1)
QADAPG2X	Total expense for applications, games, or ringtones two months ago, adjusted for business.	NUM(8)
QADA_G2X	QADAPG2X Flag	CHAR(1)
QADAPG3X	Total expense for applications, games, or ringtones one month ago, adjusted for business.	NUM(8)
QADA_G3X	QADAPG3X Flag	CHAR(1)

UTI

Variable Changes

Beginning in 2011Q2, the following UTI variables will be changed in the data:

Variable name	Description of change
INTSERV	The following codes will be deleted from UTI 300 – Listening to or downloading music or audio files 400 – Viewing or downloading video files 500 – Online games or other internet entertainment sites

INTSRV1-9	The following codes will be deleted from UTI 300 – Listening to or downloading music or audio files 400 – Viewing or downloading video files 500 – Online games or other internet entertainment sites

UTC

Variable Deletions

Beginning in 2011Q2, the following UTC variables will be deleted from the data:

Variable name	Description
HAVEBILL	Did the respondent use a bill or statement?
HAVE_ILL	HAVEBILL flag

CRA

Variable Changes

Beginning in 2011Q2, the following CRA variables will be changed in the data:

Variable name	Description of change
CRMCODEA	The following codes will be added 231 – Wall to wall carpet, original installation 232 – Wall to wall carpet, replacement
CRMCD A1-9	The following codes will be added 231 – Wall to wall carpet, original installation 232 – Wall to wall carpet, replacement

CRB

Variable Changes

Beginning in 2011Q2, the following CRB variables will be changed in the data:

Variable name	Description of change
CRMCODEB	The following codes will be added 231 – Wall to wall carpet, original installation 232 – Wall to wall carpet, replacement
CRMCD B1-9	The following codes will be added 231 – Wall to wall carpet, original installation 232 – Wall to wall carpet, replacement

CONTRACT	<p>Old wording: Did you do all the work yourself or did you pay someone or contract with a builder to do all or part of the work?</p> <ol style="list-style-type: none"> 1 Self only 2 Contracted out 3 Both <p>New wording: Did you do all the work yourself or did you pay someone else to do all or part of the work?</p> <ol style="list-style-type: none"> 1 Self only 2 Contracted out 3 Both
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APB

Variable Changes

Beginning in 2011Q2, the following APB variables will be changed in the data:

Variable name	Description of change
MINAPPLY	<p>The following codes will be added</p> <ul style="list-style-type: none"> 645 – Computer accessories 655 – Digital book reader 710 – Video games <p>The following codes were renamed</p> <ul style="list-style-type: none"> 470 – General Sports Equipment (exclude athletic shoes for sports-related use, such as football, baseball, soccer, or bowling) 650 – Computer software, including computer games, for non-business use 700 – Video game hardware and accessories
MNAPPL1-9	<p>The following codes will be added</p> <ul style="list-style-type: none"> 645 – Computer accessories 655 – Digital book reader 710 – Video games <p>The following codes were renamed</p> <ul style="list-style-type: none"> 470 – General Sports Equipment (exclude athletic shoes for sports-related use, such as football, baseball, soccer, or bowling) 650 – Computer software, including computer games, for non-business use 700 – Video game hardware and accessories

FRA

Variable Changes

Beginning in 2011Q2, the following FRA variables will be changed in the data:

Variable name	Description of change
FURNPURY	The following codes will be deleted 210 – Wall to wall carpet, original 211 – Wall to wall carpet, replacement

CLA

Variable Deletions

Beginning in 2011Q2, the following CLA variables will be deleted from the data:

Variable name	Description
CLOTHQA	Number of clothing items purchased
CLOTHQA_	CLOTHQA flag

Variable Changes

Beginning in 2011Q2, the following CLA variables will be changed in the data:

Variable name	Description of change
CLOTHYA	The following codes will be added 310 – Diapers 330 – Layettees 331 – Bedroom Linens 332 – Bathroom Linens 370 – Watches 380 – Jewelry The following code was renamed 280 – Footwear, including athletic footwear
CLOTHA1-9	The following codes will be added 310 – Diapers 330 – Layettes 370 – Watches 380 – Jewelry The following code was renamed 280 – Footwear, including athletic footwear

CLB

Variable Deletions

Beginning in 2011Q2, the CLB rectype will be deleted from the data. The variables will be moved or deleted as denoted below:

Variable name	Description
CLOTHYB	Moved to CLA: Diapers Layettees Bedroom Linens Bathroom Linens Watches Jewelry Moved to XPB:

	Wigs Hairpieces Toupees
CLOTHYB_	CLOTHYB flag
CLOTHB1-9	Moved to CLA
CLOTHB1-9_	CLOTHB1-9 Flags
CLOGFTB	Moved to CLA
CLOGFTB_	CLOGFTB Flag
CLOTHQB	Deleted
CLOTHQB_	CLOTHQB Flag
CLOTHMOB	Moved to CLA
CLOT_MOB	CLOTHMOB Flag
CLOTHXB	Moved to CLA
CLOTHXB_	CLOTHXB Flag
AGE_SEXB	Moved to CLA
AGE_EXB	AGE_SEXB Flag

CLC

Variable Deletions

Beginning in 2011Q2, the CLC rectype will be deleted from the data. The variables will be moved as denoted below.

Variable name	Description
SEWINGY	Moved to MIS
SEWINGY_	SEWINGY Flag
SEWING1-9	Moved to MIS
SEWING1-9_	SEWING1-9 Flags
SEWGFTC	Moved to MIS
SEWGFTC_	SEWGFTC Flag
SEWINGMO	Moved to MIS
SEWI_GMO	SEWINGMO Flag
SEWINGX	Moved to MIS
SEWINGX_	SEWINGX Flag

VOT

Variable Changes

Beginning in 2011Q2, the following MIS variables will be changed in the data:

Variable name	Description of change
JGASOXQV	<p>Old wording: Quarterly expenditure on gasoline and other non-diesel fuels to operate any vehicles, adjusted for business</p> <p>New wording: Quarterly expenditure on gasoline and other non-diesel fuels to operate all vehicles, adjusted for business</p>

SUB

Variable Changes

Beginning in 2011Q2, the following SUB variables will be changed in the data:

Variable name	Description of change
S17CODEA	<p>The following codes were renamed</p> <p>700– Encyclopedias or other reference books</p> <p>840– Shopping club membership fees including warehouse clubs, like Sam’s Club, and discount memberships like Amazon Prime</p>

ENT

Variable Additions

Beginning in 2011Q2, the following ENT variables will be added in the data:

Variable name	Description	Format
QAFL3MCX	Total expense paid for listening to or downloading music or audio files, reference period minus current month.	NUM(8)
QAFL_MCX	QAFL3MCX flag	CHAR(1)
QVFL3MCX	Total expense paid for viewing or downloading video files, reference period minus current month.	NUM(8)
QVFL_MCX	QVFL3MCX flag	CHAR(1)
QAGR3MCX	Total expense paid for any applications, games, or ringtones for a cell phone or other handheld device, reference period minus the current month.	NUM(8)
QAGR_MCX	QAGR3MCX flag	CHAR(1)
QONL3MCX	Total expense paid for online games or other internet entertainment sites, reference period minus the current month.	NUM(8)
QONL_MCX	QONL3MCX flag	CHAR(1)

Variable Changes

Beginning in 2011Q2, the following ENT variables will be changed in the data:

Variable name	Description
---------------	-------------

QBR3MCX	<p>Old wording: Amount paid for book expenses including reference books</p> <p>New wording: Amount paid for book expenses</p>
QPVD3MCX	<p>Old wording: Amount paid for video tapes or DVDs during the reference period (blank video tapes or DVDs reported in Section 6B under item code 750)</p> <p>New wording: Amount paid for any Blu-ray discs, DVDs, or VHS tapes during the reference period (blank video tapes or DVDs reported in Section 6B under item code 750)</p>
QRVD3MCX	<p>Old wording: Amount paid for rental of video tapes or DVDs during the reference period</p> <p>New wording: Amount paid for rental of any Blu-ray Discs, DVDs, or VHS Tapes during the reference period</p>

TRB

Variable Changes

Beginning in 2011Q2, the following MIS variables will be changed in the data:

Variable name	Description of change
TRMISCX	<p>Old wording: How much were expenses for souvenirs, passports, tourist booklets, and so on?</p> <p>New wording: How much were expenses for souvenirs, tourist booklets, and so on?</p>

MIS

Variable Changes

Beginning in 2011Q2, the following MIS variables will be changed in the data:

Variable name	Description of change
MISCCODE	<p>The following codes will be added</p> <p>440 – Sewing materials for making slip-covers, curtains, etc. or for handi-work in the home, including yarn</p> <p>445 – Sewing materials for making clothes</p>

	450 – Sewing Notions 455 – Other sewing materials
MISCDE1-9	The following codes will be added 440 – Sewing materials for making slip-covers, curtains, etc. or for handi-work in the home, including yarn 445 – Sewing materials for making clothes 450 – Sewing Notions 455 – Other sewing materials

XPB

Variable Additions

Beginning in 2011Q2, the following XPB variables will be added in the data:

Variable name	Description	Format
WIGSX	Total expense for removable hairpieces, wigs, or toupees.	NUM(8)
WIGSX_	WIGSX flag	CHAR(1)

Variable Changes

Beginning in 2011Q2, the following XPB variables will be changed in the data:

Variable name	Description
SALONX	Old wording: Total expense for haircuts, styling, manicures, massages, or other salon services New wording: Total expense for haircutting, styling, attached hair pieces, manicures, massages or other salon services.

III. FILE INFORMATION

The microdata are provided as SAS, STATA, SPSS data sets or ASCII comma-delimited files. The 2011 Interview release contains seven groups of Interview data files (FMLY, MEMB, MTBI, ITBI, ITII, FPAR, and MCHI), 50 EXPN files, and processing files. The FMLY, MEMB, MTBI, ITBI, and ITII files are organized by the calendar quarter of the year in which the data were collected. (See [Section V.A.1.b.](#) for a description of calendar and collection years.) There are five quarterly data sets for each of these files, running from the first quarter of 2011 through the first quarter of 2012. The FMLY file contains CU characteristics, income, and summary level expenditures; the MEMB file contains member characteristics and income data; the MTBI file contains expenditures organized on a monthly basis at the UCC level; the ITBI file contains income data converted to a monthly time frame and assigned to UCCs; and the ITII file contains the five imputation variants of the income data converted to a monthly time frame and assigned to UCCs.

The FPAR and MCHI datasets are grouped as 2-year datasets (2010 and 2011), plus the first quarter of the 2012 and contain paradata about the Interview survey. The FPAR file contains CU level data about the Interview survey, including timing and record use. The MCHI file contains data about each interview

contact attempt, including reasons for refusal and times of contact. Both FPAR and MCHI files contain five quarters of data. Each of the 50 EXPN files contains five quarters of data.

The EXPN files contain data directly derived from their respective questionnaire sections.

The processing files enhance computer processing and tabulation of data, and provide descriptive information on item codes. The processing files are: Aggregation scheme files used in the published consumer expenditure survey interview tables and integrated tables (ISTUB and INTSTUB), a UCC file that contains UCCs and their abbreviated titles, identifying the expenditure, income, or demographic item represented by each UCC; vehicle make file (CAPIVEHI), and files containing sample programs (See [Section VII. A.](#)). The processing files are further explained in [Section III.G.8. PROCESSING FILES.](#)

In addition to these processing files, there is a "[User's Guide to Income Imputation in the CE.](#)" which includes information on how to appropriately use the imputed income data.

Since space in this documentation prohibits the explanation of all information in the EXPN files, we strongly suggest the user refer to the questionnaire. Survey forms, as well as the CAPI questionnaire, are available on the Consumer Expenditure Survey webpage: <http://www.bls.gov/cex/home.htm#forms>. A list of the 50 EXPN file names with a brief description, including the Questionnaire sections to which they relate, follows.

APL Section 1, Part C	<i>General Survey Information – Major Household Appliances</i> Section 1, Part C is used to create an inventory of household appliances, including major kitchen appliances, washers and dryers, televisions, computers, and other electronic equipment.
RNT Section 2	<i>Rented Living Quarters – CU Tenure, Rental Payments, Facilities, and Services for Sample Unit and Other Units</i> Section 2 collects rent and related expenses from households who rent their homes or other properties. The questions asked during the first interview vary from those asked during subsequent interviews.
OPB Section 3, Part B	<i>Owned Living Quarters and Other Owned Real Estate – Detailed Property Description</i> Section 3, Part B collects detailed information about owned properties reported in Section 3, Part A, including the date of settlement, total cost, current market value, and annual property taxes.
OPD Section 3, Part D	<i>Owned Living Quarters and Other Owned Real Estate – Disposed of Property</i> Section 3, Part D collects information on properties that have been sold, traded, given to someone outside of the household, or otherwise disposed of by the household.
MOR Section 3, Part F	<i>Owned Living Quarters and Other Owned Real Estate – Mortgages</i> Section 3, Part F deals with mortgages and home equity loans, including the type of loan, interest rate and term, and amount of payment.
HEL Section 3, Part F	<i>Owned Living Quarters and Other Owned Real Estate – Lump Sum Home Equity Loans</i>

	Section 3, Part F deals with mortgages and home equity loans, including the type of loan, interest rate and term, and amount of payment.
OPH Section 3, Part H	<i>Owned Living Quarters and Other Owned Real Estate – Line of Credit Home Equity Loans</i> Section 3, Part H covers payments made on home equity lines of credit.
OPI Section 3, Part I	<i>Owned Living Quarters and Other Owned Real Estate – Ownership Costs</i> Section 3, Part I collects ownership costs, including extra mortgage and home equity loan payments, ground rent, homeowners' association fees, condominium and cooperative fees, and special assessments. The respondent is also asked to provide an estimate of the owned property's rental value.
UTA Section 4, Part A	<i>Utilities and Fuels for Owned and Rented Properties – Telephone Expenses</i> Section 4, Part A deals with expenditures for telephone services, including residential service and cellular service.
UTP Section 4, Part B	<i>Utilities and Fuels for Owned and Rented Properties – Additional Telephone Expenses</i> Section 4, Part B deals with other telephone expenses, including the purchase of pre-paid telephone and cellular cards and spending on public telephone use.
UTI Section 4, Part C	<i>Utilities and Fuels for Owned and Rented Properties – Internet Services Expenditures</i> Section 4, Part C collects expenditures on cable, satellite, and internet services for the household residence and other owned properties, including cable or satellite TV, satellite radio services, internet service provider, online games, and internet services at web cafes or internet kiosks.
UTC Section 4, Part D	<i>Utilities and Fuels for Owned and Rented Properties – Detailed Questions</i> Section 4, Part D collects expenditures on fuels and utilities for the household residence and other owned properties as well as rented vacation properties, including electricity, natural gas, other fuels, water service, sewer maintenance, garbage collection, and cable television or satellite service.
CRA Section 5	<i>Construction, Repairs, Alterations, and Maintenance of Owned and Rented Property – Screening Questions</i> Section 5 deals with expenses for supplies and services related to home construction, repair, alteration and maintenance.

CRB Section 5	<i>Construction, Repairs, Alterations, and Maintenance of Owned and Rented Property – Job Description</i> Section 5 deals with expenses for supplies and services related to home construction, repair, alteration and maintenance.
APA Section 6, Part A	<i>Appliances, Household Equipment, and Other Selected Items – Purchase of Household Appliances</i> Section 6, Part A covers purchases and rentals of major household appliances, such as kitchen appliances, clothes washers, and clothes dryers.
APB Section 6, Part B	<i>Appliances, Household Equipment and Other Selected Items – Purchase of Household Appliances and Other Selected Items</i> Section 6, Part B deals with purchases and rentals of small appliances, televisions, radios, sound equipment, sports and exercise equipment, and miscellaneous other household items.
EQB Section 7	<i>Household Equipment Repairs, Service Contracts, and Furniture Repair and Reupholstering – Household Equipment Repairs and Service Contracts</i> Section 7 covers expenditures for maintenance, repair, and service contracts for appliances, televisions, computers, tools, pest control service, and other household items.
FRA Section 8, Part A	<i>Home Furnishings and Related Household Items – Purchases</i> Section 8, Part A deals with purchases of furniture, household decorative items, dishes, household linens, floor coverings, and window coverings.
FRB Section 8, Part B	<i>Home Furnishings and Related Household Items – Rental, Leasing, or Repair of Furniture</i> Section 8, Part B deals with expenditures for furniture rental and repair.
CLA Section 9, Part A	<i>Clothing and Sewing Materials – Clothing</i> Section 9, Part A deals with purchases of clothing for persons age 2 years old and older.
CLB Section 9, Part B	<i>Clothing and Sewing Materials – Infants Clothing, Watches, Jewelry, and Hairpieces</i> Section 9, Part B deals with purchases of clothing for children under 2 years of age, jewelry, and hairpieces. *Beginning in 2011Q2 this section will be deleted, and its contents moved to reotypes CLA and XPB.
CLC Section 9, Part C	<i>Clothing and Sewing Materials – Sewing Materials</i> Section 9, Part C deals with purchases of sewing materials, including materials for making slipcovers and curtains, materials for making clothes, and sewing notions.

	*Beginning in 2011Q2 this section will be deleted, and its contents moved to rectype MIS.
CLD Section 9, Part D	<i>Clothing and Sewing Materials – Clothing Services</i> Section 9, Part D deals with expenses for clothing services, including alterations, jewelry repair, clothing rental, and clothing storage.
RTV Section 10, Part A.1	<i>Rented and Leased Vehicles – Screening Questions</i> Section 10 deals with vehicle rentals and leases. The questions asked during the first interview vary from those asked during subsequent interviews.
LSD Section 10, Part B	<i>Rented and Leased Vehicles – Detailed Questions for Leased Vehicles</i> Section 10 in a first interview asks if there are any vehicle lease payments or new leases, then collects details about those vehicles and expenses.
OVB Section 11	<i>Owned Vehicles – Detailed Questions</i> Section 11 collects expenditures for owned vehicles. The questions asked depend on whether it is the first interview or a subsequent interview, and whether there are any previously reported vehicles owned by the consumer unit.
OVC Section 11	<i>Owned Vehicles – Disposal of Vehicles</i> Section 11 collects expenditures for owned vehicles. The questions asked depend on whether it is the first interview or a subsequent interview, and whether there are any previously reported vehicles owned by the consumer unit.
VEQ Section 12, Part A	<i>Vehicle Operating Expenses – Vehicle Maintenance and Repair</i> Section 12, Part A deals with expenses for vehicle services, parts and equipment.
VLR Section 12, Part B	<i>Vehicle Operating Expenses – Licensing, Registration, and Inspection of Vehicles</i> Section 12, Part B deals with expenses for driver's licenses, vehicle registration, and vehicle inspection.
VOT Section 12, Part C	<i>Vehicle Operating Expenses – Other Vehicle Operating Expenses</i> Section 12, Part C deals with other vehicle operating expenses, including a monthly average expenditure on gasoline, purchases of oil and other fluids, parking fees, towing charges, docking or landing fees, and expenses for auto repair service policies and clubs.
INB Section 13, Part B	<i>Insurance Other Than Health – Detailed Questions</i> Section 13, Part B collects detailed information about each type of non-health insurance policy that was reported.

IHB Section 14, Part B	<i>Hospitalization and Health Insurance – Detailed Questions</i> Section 14, Part B collects detailed information about each health insurance policy that was reported in Section 14, Part A.
IHC Section 14, Part C	<i>Hospitalization and Health Insurance – Medicare and Medicaid</i> Section 14, Part C covers participation in health insurance plans for which the household does not pay directly, such as Medicare, Medicaid, and military health care plans.
IHD Section 14, Part C	<i>Hospitalization and Health Insurance – Medicare Prescription Drug Program</i> Section 14, Part C covers participation in health insurance plans for which the household does not pay directly, such as Medicare, Medicaid, and military health care plans.
MDB Section 15, Part A	<i>Medical and Health Expenditures – Payments For Medical Expenses</i> Section 15, Part A collects out-of-pocket medical payments, including payments for medical services, prescription drug purchases, and rentals or purchases of medical supplies and equipment.
MDC Section 15, Part B	<i>Medical and Health Expenditures – Reimbursements For Medical Expenses</i> Section 15, Part B covers reimbursements received by the consumer unit for medical services, prescription drugs, and medical supplies or equipment.
EDA Section 16	<i>Educational Expenses</i> Section 16 collects educational expenses, including recreational lesson fees, tuition, room and board, purchases of school books and equipment, and other educational expenses.
SUB Section 17, Part A	<i>Subscriptions, Memberships, Books, and Entertainment Expenses – Subscriptions and Memberships</i> Section 17, Part A deals with expenditures for subscriptions, mail order clubs, season tickets, reference books, recreational club memberships and shopping club memberships.
ENT Section 17, Part B	<i>Subscriptions, Memberships, Books, and Entertainment Expenses – Books and Entertainment Expenses</i> Section 17, Part B deals with expenses for participation in sports, admissions to sporting or other events, and purchases of various entertainment items such as books, magazines, newspapers, music CDs or tapes, photographic film, and video tapes or DVDs.
TRD Section 18, Part A	<i>Trips and Vacations – 100% Reimbursed Trips</i> Section 18, Part A is used to determine whether the household has taken any trips during the reference period, or to follow up on previously reported trips. Specific questions in this section are used to distinguish between trip

	expenses paid by the household and those paid by someone else. Only expenses paid by the household are included in CE Survey estimates.
TRV Section 18, Part BC	<i>Trips and Vacations – Trips Paid Entirely by CU and Partially Reimbursed Trips</i> Section 18, Part BC collects detailed information about the trips identified in Part A, including the value of any package deals and expenses for transportation, lodging, food, and entertainment on trips.
TRE Section 18, Part E	<i>Trips and Vacations – Trip Expenses for Non-CU Members</i> Section 18, Part E deals with trip expenses paid by the household for someone outside of the household.
TRF Section 18, Part F	<i>Trips and Vacations – Local Overnight Stays</i> Section 18, Part F collects detailed information about local overnight stays, including the value of any package deals and expenses for lodging, food, and entertainment.
MIS Section 19, Part A	<i>Miscellaneous Expenses</i> Section 19, Part A covers miscellaneous expenses such as funeral expenses, legal and accounting fees, various household services, babysitting and adult care, toys and games, lotteries, and pet expenses.
CNT Section 19, Part B	<i>Miscellaneous Expenses – Contributions</i> Section 19, Part B deals with payments and contributions to persons outside of the household, and to religious, political, educational and other charitable organizations.
XPA Section 20, Part A	<i>Expense Patterns For Food, Beverages, and Other Selected Items – Food and Beverages</i> Section 20, Part A asks for expenditure estimates for groceries, alcoholic beverages, and meals away from home.
XPB Section 20, Part B	<i>Expense Patterns For Food, Beverages, and Other Selected Items – Selected Services and Goods</i> Section 20, Part B deals with expenses for dry cleaning, laundry service, cigarettes, personal services, banking fees, taxis, limousines, and mass transportation.
FN2 Section 21, Part A.1	<i>Credit Liability – Credit Balances – Second Interview Only</i> Section 21, Part A.1 asks about money owed to credit sources such as gasoline credit cards, store or major credit cards, financial institutions, medical practitioners, and certain types of loans. This section is only asked during the second interview.
FNA Section 21, Part A.2	<i>Credit Liability – Credit Balances – Fifth Interview Only</i>

	Section 21, Part A.2 asks about money owed to credit sources such as gasoline credit cards, store or major credit cards, financial institutions, medical practitioners, and certain types of loans. This section is only asked during the fifth interview.
FNB Section 21, Part B	<i>Credit Liability – Finance Charges – Fifth Interview Only</i> Section 21, Part B asks about finance charges, interest, and late fees paid to credit sources such as gasoline credit cards, store or major credit cards, financial institutions, medical practitioners, and certain types of loans. This section is only asked during the fifth interview.

Note that the variable NEWID, the CU’s identification number, is the common variable among files by which matching is done. Values for NEWID have a leading “blank.” Because of this, it appears the NEWID values are only 7 characters long, when actually they are 8.

A. DATA SET NAMES

The file naming convention in the SAS subfolder is listed in the table below. The STATA, SPSS, and ASCII comma-delimited files use the same dataset names as SAS, but have a different file extension as follows:

- STATA files: *.dta
- SPSS files: *.sav
- Comma-delimited ASCII files: *.csv

\INTRVW11\FMLI111x.sas7bdat (Interview FMLY file for first quarter, 2011)
\INTRVW11\MEMI111x.sas7bdat (Interview MEMB file for first quarter, 2011)
\INTRVW11\MTBI111x.sas7bdat (Interview MTBI file for first quarter, 2011)
\INTRVW11\ITBI111x.sas7bdat (Interview ITBI file for first quarter, 2011)
\INTRVW11\ITII111x.sas7bdat (Interview ITII file for first quarter, 2011)
\INTRVW11\FMLI112.sas7bdat (etc.)
\INTRVW11\MEMI112.sas7bdat
\INTRVW11\MTBI112.sas7bdat
\INTRVW11\ITBI112.sas7bdat
\INTRVW11\ITII112.sas7bdat
\INTRVW11\FMLI113.sas7bdat
\INTRVW11\MEMI113.sas7bdat
\INTRVW11\MTBI113.sas7bdat
\INTRVW11\ITBI113.sas7bdat
\INTRVW11\ITII113.sas7bdat
\INTRVW11\FMLI114.sas7bdat
\INTRVW11\MEMI114.sas7bdat
\INTRVW11\MTBI114.sas7bdat
\INTRVW11\ITBI114.sas7bdat
\INTRVW11\ITII114.sas7bdat
\INTRVW11\FMLI121.sas7bdat
\INTRVW11\MEMI121.sas7bdat
\INTRVW11\MTBI121.sas7bdat
\INTRVW11\ITBI121.sas7bdat
\INTRVW11\ITII121.sas7bdat
\INTRVW11\UCCI11.txt

\\INTRVW11\\VEHI11.txt
\\PARA11\\FPAR1011.sas7bdat
\\PARA11\\MCHI1011.sas7bdat
\\EXPN11\\APL11.sas7bdat
\\EXPN11\\RNT11.sas7bdat
\\EXPN11\\OPB11.sas7bdat
\\EXPN11\\OPD11.sas7bdat
\\EXPN11\\MOR11.sas7bdat
\\EXPN11\\HEL11.sas7bdat
\\EXPN11\\OPH11.sas7bdat
\\EXPN11\\OPI11.sas7bdat
\\EXPN11\\UTA11.sas7bdat
\\EXPN11\\UTP11.sas7bdat
\\EXPN11\\UTI11.sas7bdat
\\EXPN11\\UTC11.sas7bdat
\\EXPN11\\CRA11.sas7bdat
\\EXPN11\\CRB11.sas7bdat
\\EXPN11\\APA11.sas7bdat
\\EXPN11\\APB11.sas7bdat
\\EXPN11\\EQB11.sas7bdat
\\EXPN11\\FRA11.sas7bdat
\\EXPN11\\FRB11.sas7bdat
\\EXPN11\\CLA11.sas7bdat
\\EXPN11\\CLB11.sas7bdat
\\EXPN11\\CLD11.sas7bdat
\\EXPN11\\CLC11.sas7bdat
\\EXPN11\\RTV11.sas7bdat
\\EXPN11\\LSD11.sas7bdat
\\EXPN11\\OVB11.sas7bdat
\\EXPN11\\OVC11.sas7bdat
\\EXPN11\\VEQ11.sas7bdat
\\EXPN11\\VLR11.sas7bdat
\\EXPN11\\VOT11.sas7bdat
\\EXPN11\\INB11.sas7bdat
\\EXPN11\\IHB11.sas7bdat
\\EXPN11\\IHC11.sas7bdat
\\EXPN11\\IHD11.sas7bdat
\\EXPN11\\MDB11.sas7bdat
\\EXPN11\\MDC11.sas7bdat
\\EXPN11\\EDA11.sas7bdat
\\EXPN11\\SUB11.sas7bdat
\\EXPN11\\ENT11.sas7bdat
\\EXPN11\\TRD11.sas7bdat
\\EXPN11\\TRV11.sas7bdat
\\EXPN11\\TRE11.sas7bdat
\\EXPN11\\TRF11.sas7bdat
\\EXPN11\\MIS11.sas7bdat
\\EXPN11\\CNT11.sas7bdat
\\EXPN11\\XPA11.sas7bdat
\\EXPN11\\XPB11.sas7bdat
\\EXPN11\\FN211.sas7bdat
\\EXPN11\\FNA11.sas7bdat
\\EXPN11\\FNB11.sas7bdat

B. RECORD COUNTS

The following are the number of records in each data set (recall that each EXPN file contains 5 quarters of data within a single data set) The OBS count is also applicable to the STATA and SPSS files:

SAS data set	Record Counts
FMLI111X.SAS7BDAT	6869
FMLI112.SAS7BDAT	6729
FMLI113.SAS7BDAT	6611
FMLI114.SAS7BDAT	6781
FMLI121.SAS7BDAT	6838
MEMI111X.SAS7BDAT	17318
MEMI112.SAS7BDAT	16990
MEMI113.SAS7BDAT	16647
MEMI114.SAS7BDAT	16915
MEMI121.SAS7BDAT	17090
MTBI111X.SAS7BDAT	552798
MTBI112.SAS7BDAT	536048
MTBI113.SAS7BDAT	539712
MTBI114.SAS7BDAT	545595
MTBI121.SAS7BDAT	572476
ITBI111X.SAS7BDAT	378648
ITBI112.SAS7BDAT	372771
ITBI113.SAS7BDAT	367488
ITBI114.SAS7BDAT	373578
ITBI121.SAS7BDAT	377130
ITII111x.SAS7BDAT	523638
ITII112.SAS7BDAT	512790
ITII113.SAS7BDAT	507537
ITII114.SAS7BDAT	507571
ITII121.SAS7BDAT	523089
FPAR1011.SAS7BDAT	108410
MCHI1011.SAS7BDAT	480099
APL11.SAS7BDAT	306661
RNT11.SAS7BDAT	12502
OPB11.SAS7BDAT	26364

OPD11.SAS7BDAT	209
MOR11.SAS7BDAT	15010
HEL11.SAS7BDAT	960
OPH11.SAS7BDAT	2381
OPI11.SAS7BDAT	38306
UTA11.SAS7BDAT	43989
UTP11.SAS7BDAT	2907
UTI11.SAS7BDAT	38871
UTC11.SAS7BDAT	110819
CRA11.SAS7BDAT	962
CRB11.SAS7BDAT	10044
APA11.SAS7BDAT	3001
APB11.SAS7BDAT	36248
EQB11.SAS7BDAT	5202
FRA11.SAS7BDAT	27726
FRB11.SAS7BDAT	323
CLA11.SAS7BDAT	145331
CLB11.SAS7BDAT	4019
CLC11.SAS7BDAT	610
CLD11.SAS7BDAT	2415
RTV11.SAS7BDAT	825
LSD11.SAS7BDAT	1242
OVB11.SAS7BDAT	60814
OVC11.SAS7BDAT	2143
VEQ11.SAS7BDAT	39445
VLR11.SAS7BDAT	12363
VOT11.SAS7BDAT	33827
INB11.SAS7BDAT	72722
IHB11.SAS7BDAT	33449
IHC11.SAS7BDAT	13508
IHD11.SAS7BDAT	4826
MDB11.SAS7BDAT	59847
MDC11.SAS7BDAT	1322
EDA11.SAS7BDAT	13876
SUB11.SAS7BDAT	16862
ENT11.SAS7BDAT	19696
TRV11.SAS7BDAT	12476
TRD11.SAS7BDAT	5766
TRE11.SAS7BDAT	3455
TRF11.SAS7BDAT	373
MIS11.SAS7BDAT	63009
CNT11.SAS7BDAT	34582
XPA11.SAS7BDAT	33828
XPB11.SAS7BDAT	33827
FN211.SAS7BDAT	23646
FNA11.SAS7BDAT	5585
FNB11.SAS7BDAT	8537

C. DATA FLAGS

Data fields on the FMLY, MEMB, and EXPN files are explained by flag variables following the data field. The names of the flag variables are derived from the names of the data fields they reference. In general, the rule is to add an underscore to the last position of the data field name, for example SALARYX becomes SALARYX_. However, if the data field name is eight characters in length, then the fifth position is replaced with an underscore. If this fifth position is already an underscore, then the fifth position is changed to a zero, so that PENSIONX becomes PENS_ONX, EDUC_REF becomes EDUC0REF.

1. Flag values for the FMLY and MEMB files:

A flag value of "A" indicates a valid blank; that is, a blank field where a response is not anticipated.

A flag value of "B" indicates a blank resulting from an invalid nonresponse; that is, a nonresponse that is not consistent with other data reported by the CU.

A flag value of "C" refers to a blank resulting from a "don't know", refusal, or other type of nonresponse.

A flag value of "D" indicates that the data field contains a valid or good data value.

A flag value of "T" indicates topcoding has been applied to the data field.

Some Primary Sampling Units (PSUs) in some states are given "false" STATE codes for nondisclosure reasons. See [Section IV.A.CU CHARACTERISTICS AND INCOME FILE \(FMLY\)](#) on topcoding of CU characteristics and income for more detail.

2. Flag values for the EXPN and MTBI files:

A flag value of "A" indicates a valid blank; that is, a blank field where a response is not anticipated.

A flag value of "B" indicates a blank resulting from an invalid nonresponse; that is, a nonresponse that is not consistent with other data reported by the CU.

A flag value of "C" refers to a blank resulting from a "don't know", refusal, or other type of nonresponse.

A flag value of "D" indicates that the data field contains a valid value and is unadjusted.

A flag value of "E" indicates that the data field contains a valid value that has been allocated.

A flag value of "F" indicates that the data field contains a valid value that has been imputed or in some other way adjusted.

A flag value of "G" indicates that the data field contains a valid value that has been allocated and imputed.

A flag value of "T" indicates that the data field contains a valid value that has been topcoded or suppressed.

A flag value of "U" indicates that the data field contains a valid value that has been allocated and then topcoded or suppressed.

A flag value of "V" indicates that the data field contains a valid value that has been imputed or in some other way adjusted and then topcoded or suppressed.

A flag value of "W" indicates that the data field contains a valid value that has been allocated and imputed and then topcoded or suppressed.

A flag value of "H" refers to a valid blank for an expenditure that is a "parent record" where the expenditure was allocated to other records and the original expenditure was overwritten with a blank.

D. INCOME IMPUTATION

Beginning in 2004, the CE implemented multiple imputation of income data. Imputation allows income values to be estimated when they are not reported. Many income variables and other income related variables are now imputed using a multiple imputation process. These imputed income values are included in the FMLY, MEMB, ITBI, and ITII files. The multiple imputation process derives five imputation values, and a mean imputation value, per selected income variable. More information on the imputation process and how to appropriately use the data are found in the document "[User's guide to Income Imputation in the CE.](#)"

In the public-use microdata, not all of the imputed income variables contain the derived imputation values. For some income variables, the five derived imputations are excluded and only the mean of those imputations is available. For these variables, there are 3 associated income variables in the FMLY and MEMB files (INCOMEM, INCOMEM_, and INCOMEI). For all other imputed income variables, there are 7 associated variables in the FMLY and MEMB files:

- INCOME1 - the first imputed income value or the reported income value, if non-missing
- INCOME2 - the second imputed income value or the reported income value, if non-missing
- INCOME3 - the third imputed income value or the reported income value, if non-missing
- INCOME4 - the fourth imputed income value or the reported income value, if non-missing
- INCOME5 - the fifth imputed income value or the reported income value, if non-missing
- INCOMEM - the mean of the five imputed income values
- INCOMEM_ - the flag variable for the imputed variable (see [Section III.C. Data Flags](#))
- INCOMEI - the imputation indicator variable

Income variables that have imputed values as components (ex: FINCBEFM) will also have 5 imputed values and a mean based on each of the imputed components.

The imputation indicator variable is a 3 digit number that is coded as follows:

The first digit in the 3 digit code defines the imputation method. The meanings are:

- 1: No Imputation
- 2: Multiple Imputation due to invalid blank only
- 3: Multiple Imputation due to bracketing only
- 4: Multiple Imputation due to invalid blanks and bracketing
- 5: Multiple Imputation due to conversion of a valid blank to an invalid blank (this occurs only when initial values for all sources of income for the CU were valid blanks).

The meaning of the last two digits of the three digit code differs depending on whether you are looking at one of the components of overall income, like fsalaryxm, or you are looking at the summary level variable fincbtxm. For the components, the last 2 digits represent the number of family members who had their data imputed for that source. For example, if a family had a value of 302 for fsalaryi that would mean that

2 of the members in the family had their salary income imputed and that in both cases the imputation was due to bracketing only. For the summary level variable fincbtxm which is a summation of all of the income components, the last 2 digits represent the number of income sources imputed for each member added together. For example, if a family had 3 members and 2 had salary income imputed due to invalid blank only, and 2 had nonfarm income imputed due to bracketing only, and that was the only income data imputed for members of that family, then fsalaryi for the family would be 202, fnonfrmi would be 302, and fincbtxi would be 404.

The ITBI file includes income UCCs mapped from the associated INCOMEM variable in the FMLY files. The ITII file includes UCCs mapped from income variables subject to income imputation, including the variable IMPNUM to indicate the imputation number 1 - 5.

E. FILE NOTATION

Every record from each data file includes the variable NEWID, the CU's unique identification number, which is used to link records of one CU from several files across all quarters in which they participate.

Data fields for variables on the microdata files have either numeric or character values. The format column in the detailed variable descriptions distinguishes whether a variable is numeric (NUM) or character (CHAR) and shows the number of field positions the variable occupies. Variables that include decimal points are formatted as NUM(t,r) where t is the total number of positions occupied, and r is the number of places to the right of the decimal.

In addition to format, these detailed listings give an item description, questionnaire source, and identification of codes where applicable for each variable. The questionnaire source format will now indicate the CAPI section where the question can be found.

An asterisk (*) is shown in front of new variables, those which have changed in format or definition, and those which have been deleted. Variables whose format has expanded are moved to the end of the files, and their original positions are left blank. New variables are added to the end of the files after variables whose format has changed. The positions of deleted variables are left blank.

Some variables require special notation. The following notation is used throughout the documentation for all files:

*D(Yxxq) identifies a variable that is deleted as of the quarterly file indicated. The year and quarter are identified by the 'xx' and 'q' respectively. For example, the notation *D(Y102) indicates the variable is deleted starting with the data file of the second quarter of 2010.

*N(Yxxq) identifies a variable that is added as of the quarterly file indicated. The year and quarter are identified by the 'xx' and 'q' for new variables in the same way as for deleted variables.

*C(Yxxq) identifies a variable's content or description has changed beginning in the quarterly file indicated. The year and quarter are identified by the 'xx' and 'q' for new variables in the same way as for deleted variables.

*L indicates that the variable can contain negative values.

F. ALLOCATION AND RECORD ORIGIN (EXPAN)

Expenditures on the EXPAN files that have been allocated can be identified through their flag variable, which will have a value, set to 'H' (see [Section III.C. DATA FLAGS](#)). These expenditures can be recreated using the fields SEQNO and ALCNO. SEQNO is a counter assigned to make records unique. ALCNO is zero for all original expenditure records. If ALCNO is greater than zero, the corresponding expenditure record is the result of allocation of an original record whose expenditure field has been replaced with a blank for that CU. By summing expenditures for records with ALCNO greater than zero and the same SEQNO as the original record, one can arrive at the value which was allocated.

The codes for the variable REC_ORIG, which are common to every EXPAN file record, can be interpreted as follows:

CODE	DEFINITION
1	Data reported in the current quarter's interview.
2	Data reported in the previous quarter's interview that are encompassed by the current reference period. These data are brought forward through the reference period adjustment process.
3	Data reported in the previous quarter's interview that are encompassed by the current reference period, and this logical record duplicates a logical record from the current interview month. These data are brought forward through the reference period adjustment process; the data duplication is also identified during this process.
4	Inventory data reported in previous quarters' interviews brought forward through the inventory update process. No updates are applied to this logical record as none are indicated in the current inventory chart.
5	Inventory data reported in previous quarters' interviews brought forward through the inventory update process. Updates are applied based upon data contained in the current inventory chart.
6	Data created by the processing system.

G. NOTES ON FILES

There are some specifics that are unique to particular files to be aware of when working with the datasets. Important notes that were previously listed with the Variable descriptions can now be found in this section of the documentation. Each note is broken into file and category.

1. CONSUMER UNIT (CU) CHARACTERISTICS AND INCOME FILE (FMLY)

The "FMLY" file, also referred to as the "Consumer Unit Characteristics and Income" file, contains CU characteristics, CU income, and characteristics and earnings of the reference person and of the spouse. The file includes weights needed to calculate population estimates and variances. (See [Sections V. ESTIMATION PROCEDURES](#) and [VI. RELIABILITY STATEMENT](#).)

Summary expenditure variables in this file can be combined to derive quarterly estimates for broad consumption categories. Demographic characteristics, such as family size, refer to the CU status on the date of the interview. Demographic characteristic information may change between interviews if, for example, a member enters or leaves the CU. Income variables contain annual values. Income data are collected in the second and fifth interviews only and cover the 12 months prior to the date of interview. Income data collected in the second interview are copied to the third and fourth interviews. Income data are updated only if a CU member over 13 is new to the CU or has not worked in previous interviews and has now started working. When there is a valid nonresponse, or where nonresponse occurs and there is

no imputation, there will be missing values. The type of nonresponse is explained by associated data flag variables described in [Section III.C. DATA FLAGS](#).

a. SUMMARY EXPENDITURE DATA

Main Summary Level Expenditure Variables

For each summary expenditure category listed below there are two variables. They apportion expenditures reported for the three-month reference period of the interview to the calendar quarters, relative to the month of interview, in which the expenditures occurred. The first variable contains expenditures made by the CU in the calendar quarter previous to the month of interview. These "previous quarter" expenditure variables are identified by "PQ" placed as the last two letters of the variable name. The second variable contains expenditures made in the calendar quarter of the month of interview (last 2 letters of the variable name 'CQ'). So if CUs were interviewed in May (when they reported their February, March, and April expenditures), the "PQ" variable would contain their February and March expenditures since the previous calendar quarter to a May interview is from January to March. The "CQ" variable for these CUs would contain only their April expenditures. The variables are set up this way to facilitate analysis by calendar time period. For example, to calculate an expenditure category mean for a given calendar quarter, expenditures from the "CQ" variable for interviews conducted during the quarter of interest are added to amounts from the "PQ" variable for interviews conducted during the subsequent quarter prior to dividing by the number of observations. To derive expenditure statistics by collection period, i.e., for interviews conducted during a specific period, it is necessary to obtain all expenditures reported during each interview by summing the "PQ" and "CQ" variables of the desired expenditure category. See [Section V.A.1.b. CALENDAR PERIOD VERSUS COLLECTION PERIOD](#) for a detailed explanation of calendar and collection periods.

The variables FOODTOT through HOUSKEEP contain summary expenditure data. They are all BLS derived. The UCCs comprising each summary expenditure variable are listed below the variable description. UCCs may not be represented in all Interview quarters. When UCCs are added or deleted to the summary variable definition, the quarter in which the addition (deletion) to the summary expenditure variable occurs is denoted by a leading character directly after the UCC code in the "Changes to the 2011 Microdata section". For example, N111<UCC> or D111<UCC> identifies a new or deleted UCC for a given summary expenditure variable beginning in Q111.

PLEASE NOTE THE FOLLOWING:

MISC2PQ(CQ) contains UCCs that are a subset of those included in MISCPQ(CQ) – miscellaneous expenditures. Component UCCs in MISCPQ(CQ) have been separated according to collection method. UCCs for which the values are obtained from questions asked in interviews 2 through 5 are now in MISC1PQ(CQ), while MISC2PQ(CQ) contains those UCCs from questions asked only in the fifth interview. To obtain population or sample estimates, the summary variable MISCX4PQ(CQ) has been created. It is comprised of MISC1PQ(CQ) expenditures and MISC2PQ(CQ) expenditures that have been multiplied by four, in order to account for families not in their fifth interviews. Similarly, TOTEX4PQ(CQ) reflects the adjustments for "non-fifth interview" families in MISC2PQ(CQ) and CASHCOPQ(CQ). Please be aware that for 2010Q1 MISCX4CQ(PQ) and TOTEX4PQ(CQ) overestimate the values of CASHCOPQ(CQ) and a portion of MISC2PQ(CQ) for "fifth interview" CUs and should only be used for population estimates.

Travel related summary expenditure variables

The summary level "travel" expenditure variables (T-variables) describe expenditures by consumer units on out-of-town trips. These variables have been constructed to facilitate research on travel related spending. Because the UCCs describing these items are scattered across several categories, they are collected in one format for the convenience of the user. As is the convention with the main summary level expenditure variables, each of the T-variable categories are sorted by expenditures that took place during the previous calendar quarter and current calendar quarter. However

for the T-variables, the previous quarter expenditure variables are appended with "P," and the current quarter expenditure variables are appended with "C."

Expenditure Outlays Summary Variables

Expenditure outlay summary level variables (EVARS) are used to provide a measurement of all expenditure outlays. These variables are constructed similarly to the main summary level expenditure variables in that they contain interest payments for home mortgage and vehicles when financed. The difference with the EVARS are that they also include payments on principle for home mortgages and vehicles. Note: main summary level expenditure variables are components of the higher aggregated EVARS. The EVARS follow the same naming convention as the main summary level expenditure variables. Expenditures within the collection quarter are sorted by whether they occurred in the previous calendar quarter or in the current calendar quarter. As in the Travel related summary variables, the EVARS are appended with a "P" for previous or "C" for current.

2. MEMBER CHARACTERISTICS AND INCOME (MEMB) FILE

The "MEMB" file, also referred to as the "Member Characteristics and Income" file, contains selected characteristics for each CU member, including identification of relationship to reference person. Characteristics for the reference person and spouse appear on both the MEMB file and FMLY file. Demographic characteristic data, such as age of CU member, refer to the member status on the date of the interview. Characteristic information may change between interviews. Income data are collected in the second and fifth interviews for all CU members over 13 years of age and in the third and fourth interviews for members over 13 who are new to the CU or who previously reported not working and are now working. Member income data from the second interview are carried over to the third and fourth interviews subject to the above conditions. Income variables contain annual values for the 12 months prior to the interview month. Income taxes withheld and pension and retirement contributions are shown both annually and as deductions from the member's last paycheck. When there is a valid nonresponse, or where nonresponse occurs and there is no imputation, there will be missing values. The type of nonresponse is explained by associated data flag variables described in [Section III.C. DATA FLAGS](#).

3. MONTHLY EXPENDITURES (MTBI) FILE

In the MTBI file, each expenditure reported by a CU is identified by UCC, gift/nongift status, and month in which the expenditure occurred. UCCs are six digit codes that identify items or groups of items. (See [Section XIII.A](#) for a listing of UCCs.) The expenditure data record purchases that were made during the three month period prior to the month of the interview. There may be more than one record for a UCC in a single month if that is what was reported to the interviewer. There are no missing values in this file. If no expenditure was reported for the item(s) represented by a UCC, then there is no record for the UCC on the file.

The following UCCs are from questions asked only in the 2nd or 5th interviews.

006001 Total amount owed to creditors (2nd interview)

006002 Total amount owed to creditors (5th interview)

710110 Finance charges, excluding mortgage and vehicles (5th interview)

NOTE: To be used at the macro level, the above UCCs need to be multiplied by 4 in order to account for those CUs that are not asked these questions.

4. INCOME (ITBI) FILE

The "ITBI" file, also referred to as the "Income" file, contains CU characteristics and income data. This file is created directly from the FMLY file and contains the same annual and point-of-interview data in a monthly format. It was created to facilitate computer processing when linking CU income and characteristics data with MTBI expenditure data. As such, the file structure is similar to MTBI. Each

characteristic and income item is identified by UCC (See [Section XIII.B.](#) for a listing of UCCs), gift/nongift status, and month. There are no records with missing values in ITBI. If the corresponding FMLY file variable contained a missing value, there is no record for the UCC.

The following UCCs are from questions asked only in the 5th interview. Therefore, there will be no values for these UCCs for CUs in their 2nd through 4th interviews. They have been multiplied by 4 because these data are used as estimated values for those CUs not asked the questions in that particular quarter. Therefore, to be used at the micro level they should be divided by 4. For example, if a CU reports \$50,000 for value of savings account for the past 12 months, the amount of $(\$50,000*4)/12 = \16666.67 is entered as the cost for each of the 3 months of the quarter for UCC 920012. It is multiplied by 4 because only one-fourth of all CUs interviewed in a quarter are asked this question (those in the fifth interview) and it is divided by 12 to make it a monthly figure. To obtain the annual value for the CU, sum the cost for the 3 months, for the following UCCs:

001000 003000
001010 003100
001210 920010
001220 920020
002010 920030
002020 920040
002030

5. IMPUTED INCOME (ITII) FILE

As a result of the introduction of multiply imputed income data in the Consumer Expenditure Survey, the ITII file is now included in the Public Use Microdata. It is very similar to the ITBI file, except that the variable IMPNUM. will indicate the number (1-5) of the imputation variant of the income variable and it only contains UCCs from variables subject to income imputation.

6. PARADATA FILES

With the development of computer-assisted modes of data collection, data on the survey process automatically generated by the new electronic modes became known as “paradata.”¹ The scope of paradata now includes computer-generated as well as other types of interviewer-reported data about the process of collecting survey data.

Starting in 2005, the CE began recording data about attempts to contact the sample unit through the Contact History Instrument (CHI), developed by the U.S. Census Bureau. CHI provides interviewer-observations for each contact attempt with a sample unit, regardless of whether contact is made.

Additional paradata is collected about the interview within the interview collection instrument (CAPI). This data includes information on the amount of time required to collect each interview and interview section, as well as other interviewer-entered information about the resulting survey.

The paradata files include all eligible interviews for both completed interviews and eligible but non-responding sample units (Type A non-interviews), in Interviews 1 through 5. The case’s final disposition for a sample unit can be found in the variable “OUTCOME” in the FPAR file. All other (non-paradata) files in the microdata include only completed interviews (OUTCOME = ‘201’ and ‘203’) and interviews 2 through 5.

The paradata files FPAR1011 and MCHI1011 each contain 9 quarters of data. This allows users to have a possible complete set of interviews (1-5) for respondents in 2011. These files include the variable CUID, which allows users to link the same CU across quarters (and interviews). It also includes the

¹ Couper, M. (1998). Measuring survey quality in a CASIC environment. Pp. 41-46 in Proceedings of the Section on Survey Research Methods. Alexandria, VA: American Statistical Association.

variable NEWID, which allows users to link the paradata for a particular quarter (interview) with other data from that quarter.

The paradata are in two files:

a. CU Level Paradata file (FPAR)

The CU level paradata contains one record per CU per interview. Most of the data included in the file are only relevant to completed or partially completed interviews and will have missing data for non-interviews. The non-interviews in these cases will still have an ID and OUTCOME code.

This file is derived from information captured automatically in the CAPI instrument in addition to responses entered directly by the interviewer in the CAPI instrument.

This file includes information on the total amount of time needed to complete each section (for a description of the sections and questions, see the CE website: <http://www.bls.gov/cex/csxsurveyforms.htm#interview>).

b. Contact History Attempt file (MCHI)

The contact history attempt file consists of data collected through the CHI instrument. There can be multiple records per CU per quarter.

Examples of CHI information include whether contact was made, the mode of contact (e.g., by telephone or in person), reasons for non-interview, the strategies the interviewer used when attempting to contact the sample unit, as well the interviewer's observations about interactions with a sample unit that was contacted. Interviewers can make a CHI entry immediately after a contact attempt or at a later time (for example, at home) . Every time the survey questionnaire is accessed on the laptop, CHI launches automatically upon exiting the questionnaire, at which point, interviewers can complete a CHI entry. Alternatively, a contact attempt entry can also be recorded by selecting a case from the Case Management System and bringing up CHI without opening the survey itself. Interviewers are instructed to complete a CHI record each time a contact attempt is made.²

7. DETAILED EXPENDITURES (EXPN) FILES

Positions 1-20 contain the variables QYEAR, NEWID, SEQNO, ALCNO and REC_ORIG that are common to all sections of EXPN. Descriptions of these variables can be found in Section 1 (APA).

a. SECTION 1 GENERAL SURVEY INFORMATION (APA)

PART C Major Household Appliances - For New Consumer Units Only

This file contains an inventory of major household appliances belonging to the CU. These questions are asked at the first interview and the information is carried forward to subsequent interviews through the inventory update process. Note that the title of this section on the questionnaire each user has received indicates it is asked "For New Consumer Units Only". This is because this questionnaire is used for the second through fifth interviews. The section would only be completed if a new CU had moved to the sample address, replacing an old CU that had previously participated.

b. SECTION 21 CREDIT LIABILITY(FN2)

PART A.1 Credit Balances - Second Quarter Only (FN2)

²In theory, interviewers are expected to record a CHI entry whenever CHI automatically launches. However, the first CHI screen does have an "out" by allowing interviewers to select the category "Looking at a case – exit CHI". Therefore it is possible for interviewers to complete an interview without ever having recorded a single CHI entry.

Data are collected in the second interview and carried forward for subsequent interviews.

8. PROCESSING FILES

c. Istub file

X:\Programs\lstub2011.txt

The Istub file shows the aggregation scheme used in the published consumer expenditure tables. It is formatted as follows:

DESCRIPTION	FORMAT
Type: represents whether information in this line contains aggregation data or not	CHAR(1)
Level: aggregation level (lowest number is highest level of aggregation)	CHAR(1)
Title: title of the line item	CHAR(60)
UCC: UCC number in the MTBI or ITBI file	CHAR(6)
Survey: Indicates survey source (I = interview, G = Aggregated item)	CHAR(1)
Group: Indicates if the item is an expenditure, income, or asset	CHAR(7)

Note: this file is an internal BLS file used for processing expenditures. It has other information that may be ignored by users of the public use data.

d. UCC file

X:\INTRVW11\UCCI11.TXT

The UCC file contains UCCs and their abbreviated titles, identifying the expenditure, income, or demographic item represented by each UCC. It is formatted as follows:

DESCRIPTION	FORMAT
UCC	CHAR(6)
UCC title (See Section XIII.A. EXPENDITURE UCCS ON MTBI FILE and XIII.B. INCOME AND RELATED UCCS ON ITBI FILE for a list of UCCs and their full titles by file—expenditure (MTBI) or income (ITBI).)	CHAR(50)

e. Vehicle file

New vehicle codes were introduced with the CAPI instrument and should be used for vehicle information collected from the 2003q2 survey on. These codes can be found in the variable MKMDEL (the first 3 characters) in EXPN Section 10, Part B (Rented and Leased Vehicles – Detailed Questions for Leased Vehicles) and MAKE in EXPN Section 11, Part B (Owned Vehicles - Detailed Questions).

X:\EXPN11\CAPIVEHI11.TXT

CAPIVEHI11.TXT is formatted as follows

DESCRIPTION	FORMAT
Make code	CHAR(3)
Make of vehicle	CHAR(32)

IV. TOPCODING AND OTHER NONDISCLOSURE REQUIREMENTS

Sensitive CU data are changed so that users will not be able to identify CUs who participated in the survey. Topcoding refers to the replacement of data in cases where the value of the original data exceeds prescribed critical values. Critical values for each variable containing sensitive data are calculated in accordance with Census Disclosure Review Board guidelines. Each observation that falls outside the critical value is replaced with a topcoded value that represents the mean of the subset of all outlying observations. All five quarters of data in the CE microdata release are used when calculating the critical value and topcode amounts. If an observation is topcoded, the flag variable assigned to that observation is set to 'T'.

Since the critical value and mean of the set of values outside the critical value may differ with each annual (five-quarter) release, the topcode values may change annually and be applied at a different starting point. By topcoding values in this manner, the first moment will be preserved for each five-quarter data release when using the total sample. This, however, will not be the case when means are estimated by characteristic, because topcode values are not calculated by characteristic.

A. CU CHARACTERISTICS AND INCOME FILE (FMLY)

The following table shows the FMLY file variables are subject to topcoding. The table also shows the critical values and topcode values associated with the variables.

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
ALIOTHX	Amount received from other regular contributions including alimony	45,000	NA	78,267	NA
ALIOTHXM	Amount received from other regular contributions including alimony, mean of imputation iterations	45,000	NA	37,778	NA
BSINVSTX	Investments to farm or	150,000	NA	1,090,000	NA

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
CHDLMPX	business Lump sum child support payment	6,756	NA	10,700	NA
CHDOTHX	Amount received from child support payments	15,000	NA	25,242	NA
CHDOTHXM	Amount received from child support payments, mean of imputation iterations	15,000	NA	29,544	NA
CKBKACTX	Market value of all checking accounts	39,357	NA	188,758	NA
COMPBNDX	Change in U.S. savings bonds	10,000	-4,000	16,250	-5,625
COMPCKGX	Change in checking account	40,000	-20,000	138,595	-57,698
COMPOWDX	Change in money owed to consumer unit	30,000	-6,500	322,500	-8,733
COMPSAVX	Change in savings account	50,000	-50,000	127,260	-127,967
COMPSECX	Difference in estimated market value of all stocks, bonds, or mutual funds including broker fees	200,000	-200,000	581,400	-713,250
FEDRFNDX	Federal income tax refunds	9,000	NA	14,067	NA
FEDTAXX	Additional federal income tax paid	30,000	NA	121,877	NA
FININCX	Dividends, royalties, estates, trusts	80,000	NA	175,159	NA
FININCXM	Amount received from regular income from dividends, royalties, estates or trusts	80,000	NA	82,220	NA
INCLOSAM	Amount of net income or loss	54,000	-21,183	68,552	-9,512

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
INCLOSBM	received from roomers or boarders Amount of net income or loss received from other rental units	42,000	-21,600	40,295	-13,181
INCLOSSA	Roomer and boarder income	54,000	-21,183	103,966	-26,331
INCLOSSB	Other rental income	42,000	-21,600	70,500	-25,978
INSRFNDX	Refunds from insurance policies	13,902	NA	271,000	NA
INTEARNM	Amount received from interest on savings accounts or bonds	35,000	NA	60,207	NA
INTEARNX	Interest	35,000	NA	96,129	NA
LUMPSUMX	Lump sum receipts	150,000	NA	446,544	NA
MISCTAXX	Other taxes	8,228	NA	15,450	NA
MONYOWDX	Amount of money owed to CU by persons outside CU	65,500	NA	116,429	NA
OTHRFNDX	Other tax refunds	2,400	NA	11,300	NA
OTHRINCM	Amount received from other money income	29,000	NA	29,517	NA
OTHRINCX	Other income	29,000	NA	37,945	NA
PENSIONM	Amount received from pensions or annuities	72,126	NA	87,047	NA
PENSIONX	Pensions and annuities	72,126	NA	132,219	NA
PTAXRFDX	Refunds from property taxes	2,400	NA	4,814	NA
PURSSECX	Purchase price of stocks, bonds or mutual funds including broker fees	327,000	NA	5,712,500	NA
RENTEQVX	Estimated monthly rental value of owned	3,000	NA	4,792	NA

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
	home				
SALEINCX	Money from sale of household furnishings, etc.	6,000	NA	13,207	NA
SAVACCTX	Market value of all savings accounts	150,000	NA	377,869	NA
SECESTX	Market value of all securities	1,210,000	NA	3,690,514	NA
SELLSECX	Sale price of stocks, bonds, and mutual funds, net	225,632	NA	998,100	NA
SETLINSX	Change in surrender of insurance policies	75,000	NA	188,333	NA
SLOCTAXX	Additional state and local income tax paid	6,000	NA	32,634	NA
SLRFUNDX	State and local income tax refunds	2,200	NA	3,694	NA
SSOVERPX	Refund from overpayment on Social Security	998	NA	3,034	NA
TAXPROPX	Personal property taxes	1,200	NA	3,071	NA
TYPEPYX	Amount received from reverse mortgage	10,000	NA	44,000	NA
USBNDX	Market value of all U.S. savings bonds	28,500	NA	58,108	NA
WDBSASTX	Amount of assets withdrawn from own farm or business	100,000	NA	230,000	NA
WDBSGDSX	Amount of goods or services withdrawn from own farm or business	2,400	NA	4,879	NA

Some income variables that are subject to topcoding are constructed by summing up the values of “lower level” MEMB or FMLY file component variables. These variables are not topcoded by the conventional method of replacement with a topcode value. Instead the variables’ components are summed normally

and the variables are flagged as topcoded if one of their component variables is topcoded. Following are the income variables that are calculated using values of their component variables.

EARNINCX	Amount of CU income from earnings before taxes
FAMTFEDX, FAMTFEDM	Amount of Federal income tax deducted from last pay, annualized for all CU members
FFRMINCX, FFRMINCM	Amount of income or loss received from own farm
FGOVRETX, FGOVRETM	Amount of government retirement deducted from last pay, annualized for all CU members
FINCATAX, FINCATXM	Amount of CU income after taxes
FINCBTAX, FINCBTXM	Amount of CU income before taxes
FINDRETX	Amount of money placed in individual retirement plan
FJSSDEX, FJSSDEDM	Estimated amount of annual Social Security contribution
FNONFRMX, FNONFRMM	Amount of income or loss received from nonfarm business
FPRIPENX, FPRIPENM	Amount of private pension fund deducted from last pay, annualized for all CU members
FRRDEX, FRRDEDM	Amount of Railroad Retirement deducted from last pay, annualized for all CU members
FSALARYX, FSALARYM	Amount received from wage and salary income before deductions
FSLTAXX, FSLTAXXM	Amount of state and local income taxes deducted from last pay, annualized for all CU members
NO_EARNX	Amount of income from sources other than earnings before taxes
NONINCMX	Amount of other money receipts excluded from family income
TOTTXPDX, TOTTXPDM	Amount of personal taxes paid

Here are some examples of situations that may occur. The value for the variable FFRMINCM (Family income or loss from farm) is computed as the sum of the values reported for the variable FARMINCM (member income or loss from farm) from the MEMB file. FARMINCM is subject to topcoding beyond the critical value of \$50,000 (-\$9,999). The topcode value for FARMINCM is \$67,037 (-\$26,461). (See [Section IV.B. MEMBER CHARACTERISTICS AND INCOME FILE \(MEMB\)](#)).

<u>CU</u>	<u>FARMINCM</u>	<u>REPORTED</u>	<u>AFTER TOPCODING</u>	<u>FFRMINCM VALUE</u>	<u>FLAGGED AS TOPCODED?</u>
CU 1:	MEMB1	\$45,000	\$45,000	80,000	No
	MEMB2	35,000	35,000		
CU 2:	MEMB1	60,000	67,037	87,037	Yes
	MEMB2	20,000	20,000		
CU 3:	MEMB1	200,000	67,037	134,074	Yes
	MEMB2	100,000	67,037		
CU 4:	MEMB1	40,000	40,000	13,539	Yes
	MEMB2	-45,000	-26,461		

While CUs 1 and 2 each originally report \$80,000 in FARMINCM, topcoding is done only on the value reported by MEMB1 of CU2. Thus, the value for FFRMINCM for CU2 is higher than for CU1 and is

flagged as topcoded while CU1 is not. By using the mean of the subset of observations that are above (below) the critical value as the topcode amount, values on the public use data can be either below or above the actual reported value. Note that while CU3 has a topcoded value lower than the reported value, CU2's topcoded FFRMINCM value (\$87,037) is higher than the amount that it reported (\$80,000). The case of CU4 demonstrates that the value for FFRMINCM can be lower than other topcoding situations, yet still be flagged as topcoded. This is due to the presence of a negative value (loss) for FARMINCM reported by MEMB2. The reverse can also occur.

The value of the variable, STATE, which identifies the state of residence, must be suppressed for some observations to meet the Census Disclosure Review Board's criterion that the smallest geographically identifiable area have a population of at least 100,000. STATE data were evaluated vis-à-vis the POPSIZE, REGION, and BLS_URBN variables, which show the population size of the geographic area that is sampled, the four Census regions, and urban/rural status respectively. Some STATE codes were suppressed because, in combination with these variables, they could be used to identify areas of 100,000 or less. On approximately 14 percent of the records on the FMLY files the STATE variable is blank.

A small proportion of STATE codes are replaced with codes of states other than the state where the CU resides. By re-coding in this manner, suppression of POPSIZE may be avoided. REGION is suppressed in some states. (In past releases selected observations of POPSIZE required suppression.) In total, approximately 4% of observations are recoded.

RR	01	Alabama	29	Missouri
	02	Alaska	*30	Montana
	04	Arizona	31	Nebraska
	*05	Arkansas	32	Nevada
	**06	California	33	New Hampshire
	**08	Colorado	34	New Jersey
	09	Connecticut	**36	New York
	R10	Delaware	*37	North Carolina
	11	District of Columbia	**39	Ohio
	12	Florida	40	Oklahoma
RR**	13	Georgia	**41	Oregon
	15	Hawaii	42	Pennsylvania
	16	Idaho	44	Rhode Island
	**17	Illinois	45	South Carolina
	**18	Indiana	*46	South Dakota
	**20	Kansas	**47	Tennessee
	21	Kentucky	**48	Texas
	22	Louisiana	49	Utah
	**23	Maine	**51	Virginia
RR	24	Maryland	53	Washington
	25	Massachusetts	**54	West Virginia
	26	Michigan	RR55	Wisconsin
	R27	Minnesota		
	*28	Mississippi		

* indicates that the STATE code has been suppressed for all sampled CUs in that state.

** indicates that the STATE code has been suppressed for some sampled CUs in that state.

R indicates that either all observations from this state have been re-coded or all strata¹ of observations from this state include "re-codes" from other states.

RR indicates that either some observations from this state have been re-coded or at least one stratum¹ of observations from this state includes "re-codes" from other states.

R* indicates that the STATE code has been suppressed for some sampled CUs in that state and, either STATE has been re-coded or the state includes "re-codes" from other states in all strata¹.

RR** indicates that the STATE code has been suppressed for some sampled CUs in that state and, either STATE has been re-coded or the state includes "re-codes" from other states in at least one stratum¹.

¹ A STATE stratum is a unique POPSIZE and BLS_URBN combination. States not listed are not in the CE sample.

B. MEMBER CHARACTERISTICS AND INCOME FILE (MEMB)

The following table identifies the MEMB file variables subject to topcoding. The table also shows the critical values and topcode values associated with each variable listed.

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
AGE	Age of member	82	NA	87	NA
AMTFED	Amount of Federal income tax deducted from last pay	1,200	NA	3,012	NA
ANFEDTX	Annual amount of Federal income tax deducted from pay	25,000	NA	44,036	NA
ANFEDTXM	Annual amount of Federal income tax deducted from pay	25,000	NA	43,946	NA
ANGOVRTM	Annual amount of government retirement deducted from pay	9,214	NA	12,274	NA
ANGOVRTX	Annual amount of government retirement deducted from pay	9,214	NA	12,128	NA
ANPRVPM	Annual amount of private pension fund deducted from pay	19,000	NA	26,261	NA
ANPRVPMX	Annual amount of private pension fund deducted from pay	19,000	NA	26,111	NA
ANRRDEDM	Annual amount of Railroad Retirement deducted from pay	7,000	NA	8,113	NA
ANRRDEDX	Annual amount of Railroad Retirement deducted from pay	7,000	NA	8,113	NA
ANSLTX	Annual amount of state and local income taxes deducted from pay	9,000	NA	14,685	NA
ANSLTXM	Annual amount of state and local income taxes	9,000	NA	14,570	NA

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
	deducted from pay				
FARMINCM	Amount of income or loss received from own farm	50,000	-9,999	67,037	-26,461
FARMINCX	Amount of income or loss received from own farm	50,000	-9,999	116,833	-34,133
GOVRETX	Amount of government retirement deducted from last pay	680	NA	2,192	NA
GROSPAYX	Amount of last gross pay	6,670	NA	15,216	NA
INDRETX	Amount of money placed in individual retirement plan	25,000	NA	64,393	NA
JSSDEDX	Estimated annual Social Security contribution	8,797	NA	13,023	NA
JSSDEDXM	Estimated annual Social Security contribution	8,797	NA	10,337	NA
NONFARMM	Amount of income or loss received from own nonfarm business	150,000	-9,999	264,334	-25,714
NONFARMX	Amount of income or loss received from own nonfarm business	150,000	-9,999	809,963	-70,698
PRIVPENX	Amount of private pension fund deducted from last pay	1,300	NA	4,774	NA
RRRDEDX	Amount of Railroad Retirement deducted from last pay	285	NA	498	NA
SALARYX	Amount received from wage and salary income before deductions	150,000	NA	280,522	NA
SALARYXM	Amount received from wage and salary income before deductions	150,000	NA	218,974	NA
SLFEMPSM	Amount of self-employment Social Security contribution	17,593	NA	17,180	NA

Variable	Description	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
SLFEMPSS	Amount of self-employment Social Security contribution	17,593	NA	31,728	NA
SLTAXX	Amount of state and local income taxes deducted last pay	400	NA	933	NA

Special suppression for MEMB file variables

The five MEMB file variables--AMTFED, GOVRETX, PRIVPENX, RRRDEDX, and SLTAXX--describe deductions from the most recent pay. These variables are used in conjunction with GROSPAYX (amount of last gross pay) and SALARYXM (annual wage and salary income) to derive ANFEDTX, ANGOVRTX, ANPRVPNX, ANRRDEDX, and ANSLTX, which represent the estimated annual deductions for each of these income deduction categories. For example, the estimated annual Federal income tax deduction from pay is calculated as

$$(1) \quad \text{ANFEDTXM} = (\text{SALARYXM} (\text{AMTFED}/\text{GROSPAYX})).$$

Note that SALARYXM can be estimated by using the above terms and rearranging such that

$$(2) \quad \text{SALARYXM} = (\text{ANFEDTXM} (\text{GROSPAYX}/\text{AMTFED})).$$

In the above example, a problem with disclosure may arise when neither ANFEDTXM, GROSPAYX, nor AMTFED are topcoded, *but SALARYXM is*. In this situation SALARYXM can be recalculated to obtain its original value by inserting the non-topcoded values into equation (2) and solving. In order to prevent this, the non-topcoded terms in equation (2) will be suppressed (blanked out) and their associated flags will be assigned a value of 'T'. The following chart describes in detail the specific rules that are applied to prevent the potential disclosure outlined above.

If SALARYXM is greater than the critical value but ANFEDTXM, GROSPAYX, and AMTFED are not, then the values for ANFEDTXM, GROSPAYX, and AMTFED are suppressed and their flag variables are assigned a value of 'T'.

If SALARYXM is greater than the critical value but ANGOVRTM, GROSPAYX, and GOVRETX are not, then the values for ANGOVRTM, GROSPAYX, and GOVRETX are suppressed and their flag variables are assigned a value of 'T'.

If SALARYXM is greater than the critical value but ANPRVPM, GROSPAYX, and PRIVPENX are not, then the values for ANPRVPM, GROSPAYX, and PRIVPENX are suppressed and their flag variables are assigned a value of 'T'.

If SALARYXM is greater than the critical value but ANRRDEDM, GROSPAYX, and RRRDEDX are not, then the values for ANRRDEDM, GROSPAYX, and RRRDEDX are suppressed and their flag variables are assigned a value of 'T'.

If SALARYXM is greater than the critical value but ANSLTXM, GROSPAYX, and SLTAXX are not, then the values for ANSLTXM, GROSPAYX, and SLTAXX are suppressed and their flag variables are assigned a value of 'T'.

The same special suppression for MEMB file variables occurs with the original (pre-income imputation) variables that correspond to the variables noted above (SALARYX, ANFEDTX).

C. MONTHLY EXPENDITURE FILE (MTBI)

The MTBI variable COST is subject to topcoding for some UCCs. The COST variable is not topcoded by the conventional method of replacement with a topcode value. First, variables are topcoded in the EXPN files. Then those variables are mapped to their appropriate UCC. If the variable was topcoded in the EXPN files, then the associated UCC will have a topcoded COST value, and the value of COST_ is set to 'T'. All the EXPN variables that are topcoded are listed in [Section IV. E](#). To obtain the concordance file that lists what EXPN variables are mapped to which UCC, please contact the Consumer Expenditure Survey via the phone number or email address listed on the last page of this documentation.

Note: For some UCCs multiple topcode values should be expected based on where the original value is mapped from.

D. INCOME FILE (ITBI)

The ITBI variable COST is subject to topcoding for some UCCs. The COST variable is not topcoded by the conventional method of replacement with a topcode value. First, variables are topcoded in the FMLY files. Then those variables are mapped to their appropriate UCC. If the variable was topcoded in the FMLY files, then the associated UCC will have a topcoded COST value, and the value of COST_ is set to 'T'. All the FMLY variables that are topcoded are listed in [Section IV, subsection A](#) of this documentation. To obtain the concordance file that lists what FMLY variables are mapped to which UCC, please contact the Consumer Expenditure Survey via the phone number or email address listed on the last page of this documentation.

Note: For some UCCs multiple topcode values should be expected based on where the original value is mapped from.

E. DETAILED EXPENDITURE FILES (EXPN)

The following EXPN file variables are subject to topcoding. The table also contains the critical values and topcode values associated with the following EXPN variables.

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
ADVMATX	Materials and supplies purchased for insulation, addition, construction not yet started	NA	7,500	NA	10,500	NA
DISPX	Sale price of property or trade-in amount (owned home)	OWNYD EQ '100' OR OWNYD EQ '200'	639,000	NA	1,174,750	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
DISPX	Sale price of property or trade-in amount (owned vacation)	OWNYD EQ '300'	240,000	NA	294,429	NA
DISPX	Sale price of property or trade-in amount (other property)	OWNYD EQ '400' OR OWNYD EQ '500'	140,000	NA	261,667	NA
INTCHGX	Cable and satellite television services	INTSERV EQ '100' AND INTMO EQ '13'	187	NA	231	NA
INTCHGX	Cable and satellite television services	INTSERV EQ '100' AND INTMO NE '13'	236	NA	345	NA
INTCHGX	Computer information services	INTSERV EQ '200' AND INTMO EQ '13'	100	NA	148	NA
INTCHGX	Computer information services	INTSERV EQ '200' AND INTMO NE '13'	140	NA	204	NA
JCPIRE1X	CPI quarterly rental equivalence	OWNYI EQ '100'	9,000	NA	13,639	NA
JCPIRE1X	CPI quarterly rental equivalence--second home	OWNYI EQ '300'	12,000	NA	19,960	NA
JCPIRE2X	CPI quarterly rental equivalence--second home	OWNYI EQ '300'	12,277	NA	17,991	NA
JCPIRE3X	CPI quarterly rental equivalence--second home	OWNYI EQ '300'	4,200	NA	9,247	NA
JEDUCNET	Housing while attending school	EDUC_AY EQ '310' AND EDMONTHA EQ '13'	1,100	NA	2,793	NA
JEDUCNET	Housing while attending school	EDUC_AY EQ '310' AND EDMONTHA NE '13'	5,813	NA	7,219	NA
JLABOR1X	Landscape/outdoor building repair	('140'<=CRMCODEB AND CRMCODEB<='190')	14,000	NA	23,186	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
JLABOR1X	Plumbing, electrical, heat, AC	('200'<=CRMCODEB AND CRMCODEB<='220')	9,755	NA	15,467	NA
JLABOR1X	Flooring, carpeting	('230'<=CRMCODEB AND CRMCODEB<='232')	7,000	NA	7,833	NA
JLABOR1X	Insulation, roofing, siding, masonry, windows	('240'<=CRMCODEB AND CRMCODEB<='290')	19,600	NA	21,333	NA
JLABOR1X	Construction and additions	(CRMCODEB='100' CRMCODEB='110')	90,000	NA	233,333	NA
JLABOR1X	Room finishing and remodeling	(CRMCODEB='120' CRMCODEB='130')	34,175	NA	47,906	NA
JLABOR1X	Other repair and combined codes	(CRMCODEB='300' CRMCODEB='310')	13,000	NA	22,778	NA
JLABOR2X	Landscape/outdoor building repair	('140'<=CRMCODEB AND CRMCODEB<='190')	12,000	NA	13,900	NA
JLABOR2X	Plumbing, electrical, heat, AC	('200'<=CRMCODEB AND CRMCODEB<='220')	10,743	NA	12,500	NA
JLABOR2X	Flooring, carpeting	('230'<=CRMCODEB AND CRMCODEB<='232')	5,200	NA	6,089	NA
JLABOR2X	Insulation, roofing, siding, masonry, windows	('240'<=CRMCODEB AND CRMCODEB<='290')	17,000	NA	22,596	NA
JLABOR2X	Construction and additions	(CRMCODEB='100' CRMCODEB='110')	40,354	NA	91,851	NA
JLABOR2X	Room finishing and remodeling	(CRMCODEB='120' CRMCODEB='130')	34,175	NA	41,591	NA
JLABOR2X	Other repair and combined codes	(CRMCODEB='300' CRMCODEB='310')	7,000	NA	10,141	NA
JLABOR3X	Landscape/outdoor building repair	('140'<=CRMCODEB AND CRMCODEB<='190')	15,000	NA	28,133	NA
JLABOR3X	Plumbing, electrical, heat, AC	('200'<=CRMCODEB AND CRMCODEB<='220')	8,500	NA	10,125	NA
JLABOR3X	Flooring, carpeting	('230'<=CRMCODEB AND CRMCODEB<='232')	6,500	NA	12,250	NA
JLABOR3X	Insulation, roofing, siding, masonry, windows	('240'<=CRMCODEB AND CRMCODEB<='290')	14,599	NA	22,123	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
JLABOR3X	Construction and additions	(CRMCODEB='100' CRMCODEB='110')	60,000	NA	86,378	NA
JLABOR3X	Room finishing and remodeling	(CRMCODEB='120' CRMCODEB='130')	35,000	NA	56,667	NA
JLABOR3X	Other repair and combined codes	(CRMCODEB='300' CRMCODEB='310')	11,000	NA	13,867	NA
JLCPRINX	Principal paid, home equity line of credit (owned home)	OWNYH EQ '100' OR OWNYH EQ '200'	6,505	-1,886	21,572	-2,474
JLCPRINX	Principal paid, home equity line of credit (owned vacation)	OWNYH EQ '300'	2,273	NA	18,601	NA
JLCPRINX	Principal paid, home equity line of credit (other property)	OWNYH EQ '400' OR OWNYH EQ '500'	410	NA	887	NA
JRNTEQ2X	monthly amount of rental equivalence for properties that are vacation homes, but are not timeshares.	NA	6,400	NA	8,083	NA
JRNTEQ3X	monthly amount of rental equivalence for properties that are vacation homes, but are not timeshares.	NA	39,000	NA	51,589	NA
LDGCOSTX	Lodging on out-of-town trips	NA	2,000	NA	3,803	NA
MEDPMTX	Eyecare services	MEDPCARY EQ '110'	438	NA	1,284	NA
MEDPMTX	Dental services	MEDPCARY EQ '200'	2,000	NA	4,178	NA
MEDPMTX	Hospital room and services	MEDPCARY EQ '330'	2,700	NA	7,014	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
MEDPMTX	Service by professionals other than physician	MEDPCARY EQ '410'	800	NA	2,264	NA
MEDPMTX	Physician's services	MEDPCARY EQ '420'	465	NA	1,150	NA
MEDPMTX	Lab tests, x-rays	MEDPCARY EQ '510'	750	NA	1,665	NA
MEDPMTX	Care in convalescent or nursing home	MEDPCARY EQ '520'	3,800	NA	4,675	NA
MEDPMTX	Other medical care services	MEDPCARY EQ '530'	1,000	NA	2,237	NA
MEDPMTX	Rental of supportive, convalescent medical equipment	MEDPCARY EQ '630'	400	NA	659	NA
MEDPMTX	Supportive and convalescent medical equipment	MEDPCARY EQ '640'	1,049	NA	1,703	NA
MEDPMTX	Rental of medical equipment	MEDPCARY EQ '650'	210	NA	494	NA
MEDPMTX	Medical equipment for general use	MEDPCARY EQ '660'	400	NA	728	NA
MEDRMBX	Eyecare services	MEDRCARY EQ '110'	350	NA	2,597	NA
MEDRMBX	Dental services	MEDRCARY EQ '200'	1,400	NA	1,664	NA
MEDRMBX	Hospital room and services	MEDRCARY EQ '330'	2,953	NA	11,576	NA
MEDRMBX	Service by professionals other than physician	MEDRCARY EQ '410'	1,737	NA	11,342	NA
MEDRMBX	Physician's services	MEDRCARY EQ '420'	1,000	NA	2,147	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
MEDRMBX	Lab tests, x-rays	MEDRCARY EQ '510'	714	NA	1,878	NA
MEDRMBX	Care in convalescent or nursing home	MEDRCARY EQ '520'	2,000	NA	4,103	NA
MEDRMBX	Other medical care services	MEDRCARY EQ '530'	1,400	NA	2,379	NA
MEDRMBX	Supportive and convalescent medical equipment	MEDRCARY EQ '640'	129	NA	378	NA
MEDRMBX	Rental of medical equipment	MEDRCARY EQ '650'	42	NA	76	NA
MEDRMBX	Medical equipment for general use	MEDRCARY EQ '660'	136	NA	206	NA
MISCEXPX	Occupational expenses	MISCCODE EQ '380' AND MISC MO EQ '13'	165	NA	292	NA
MISCEXPX	Occupational expenses	MISCCODE EQ '380' AND MISC MO NE '13'	800	NA	1,286	NA
MRTPMTG	Amount of last monthly payment, home equity loan (owned property)	(LOANTYPE EQ '2')	1,867	NA	2,679	NA
MRTPMTX	Amount of last monthly payment (owned property)	(LOANTYPE EQ '1')	3,444	NA	5,608	NA
NETPURX	Net purchase price of boat with motor after discount, trade-in, or rebate, including destination fee	VEHICYB EQ '160'	107,000	NA	169,684	NA
ORGMRTG	Original loan amount, home equity loan (loan obtained during interview quarter) (owned home)	(OWNYGEQ EQ '100' OR OWNYGEQ EQ '200') AND (LOANTYPE EQ '2')	156,006	NA	214,136	NA
ORGMRTG	Original loan amount, home equity loan (loan	(OWNYGEQ EQ '300') AND (LOANTYPE EQ '2')	26,676	NA	280,421	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
ORGMRTG	obtained during interview quarter) (owned vacation) Original loan amount, home equity loan (loan obtained during interview quarter)	(OWNYG EQ '400' OR OWNYG EQ '500') AND (LOANTYPE EQ '2')	0	NA	48,326	NA
ORGMRTX	(other property) Amount of mortgage (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	422,000	NA	619,775	NA
ORGMRTX	Amount of mortgage (vacation home)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	450,000	NA	510,241	NA
ORGMRTX	Original loan amount (mortgage obtained during interview quarter)	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	420,000	NA	744,000	NA
OWN_PURX	(other property) Purchase price of property (owned home)	OWNYB EQ '100' OR OWNYB EQ '200'	540,000	NA	897,000	NA
OWN_PURX	Purchase price of property (owned vacation)	OWNYB EQ '300'	900,000	NA	3,733,333	NA
OWN_PURX	Purchase price of property (other property)	OWNYB EQ '400' OR OWNYB EQ '500'	375,000	NA	1,586,167	NA
PAYMT1G	Amount of mortgage payment in the first month of the reference period, home equity loan (owned home)	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	3,075	NA	16,133	NA
PAYMT1X	Amount of mortgage payment in the first month of the reference period (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	5,000	NA	15,296	NA
PAYMT1X	Amount of mortgage payment in the first month of the reference period (vacation home)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,543	NA	1,861	NA
PAYMT1X	Amount of	(OWNYF EQ '400' OR	1,192	NA	2,982	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
	mortgage payment in the first month of the reference period (other property)	OWNYF EQ '500') AND (LOANTYPE EQ '1')				
PAYMT2G	Amount of mortgage payment in the second month of the reference period, home equity loan (owned home)	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	2,976	NA	7,341	NA
PAYMT2X	Amount of mortgage payment in the second month of the reference period (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	5,000	NA	7,953	NA
PAYMT2X	Amount of mortgage payment in the second month of the reference period (vacation home)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,543	NA	1,861	NA
PAYMT2X	Amount of mortgage payment in the second month of the reference period (other property)	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,192	NA	2,982	NA
PAYMT3G	Amount of mortgage payment in the third month of the reference period, home equity loan (owned home)	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	2,900	NA	3,017	NA
PAYMT3X	Amount of mortgage payment in the third month of the reference period (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	5,000	NA	8,296	NA
PAYMT3X	Amount of mortgage payment in the third month of the reference period (vacation home)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,543	NA	1,861	NA
PAYMT3X	Amount of	(OWNYF EQ '400' OR	1,192	NA	2,982	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
	mortgage payment in the third month of the reference period (other property)	OWNYF EQ '500') AND (LOANTYPE EQ '1')				
PROPVALX	Approximate value property would sell for on today's market (owned home)	OWNYI EQ '100'	800,000	NA	1,317,684	NA
PROPVALX	Approximate value property would sell for on today's market (owned vacation)	OWNYI EQ '300'	775,000	NA	1,247,180	NA
PRPVAL2X	Approximate value timeshare would sell for on today's market	NA	1,200,000	NA	2,456,522	NA
QADCAB1X	Cable and satellite television services	NA	250,000	NA	390,000	NA
QADCAB2X	Cable and satellite television services	NA	170	NA	197	NA
QADCAB3X	Cable and satellite television services	NA	170	NA	195	NA
QADFUL1X	Piped-in water/sewerage, 1-2 months	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('1','2','3','A','B')	241	NA	329	NA
QADFUL1X	Piped-in water/sewerage, annual and other	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('4','5','F')	450	NA	536	NA
QADFUL1X	Electricity, 1-2 months	UTILY EQ '100' AND BLPERIOD IN ('1','2','3','A','B')	480	NA	607	NA
QADFUL1X	Electricity, annual and other	UTILY EQ '100' AND BLPERIOD IN ('4','5','F')	541	NA	1,131	NA
QADFUL1X	Natural gas, 1-2 months	UTILY EQ '110' AND BLPERIOD IN ('1','2','3','A','B')	380	NA	478	NA
QADFUL1X	Natural gas, annual and other	UTILY EQ '110' AND BLPERIOD IN ('4','5','F')	600	NA	1,266	NA
QADFUL1X	Fuel oil	UTILY EQ '130'	2,000	NA	2,550	NA
QADFUL1X	Bottled or tanked gas	UTILY EQ '150'	1,800	NA	2,706	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QADFUL1X	Other fuels	UTILY EQ '180'	760	NA	1,078	NA
QADFUL1X	Trash/garbage collection	UTILY EQ '210'	152	NA	244	NA
QADFUL1X	Water softening	UTILY EQ '270'	230	NA	578	NA
QADFUL1X	Septic tank cleaning	UTILY EQ '280'	481	NA	985	NA
QADFUL2X	Piped-in water/sewerage, 1-2 months	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('1','2','3','A','B')	236	NA	316	NA
QADFUL2X	Piped-in water/sewerage, annual and other	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('4','5','F')	396	NA	1,477	NA
QADFUL2X	Electricity, 1-2 months	UTILY EQ '100' AND BLPERIOD IN ('1','2','3','A','B')	474	NA	602	NA
QADFUL2X	Electricity, annual and other	UTILY EQ '100' AND BLPERIOD IN ('4','5','F')	75	NA	287	NA
QADFUL2X	Natural gas, 1-2 months	UTILY EQ '110' AND BLPERIOD IN ('1','2','3','A','B')	380	NA	523	NA
QADFUL2X	Natural gas, annual and other	UTILY EQ '110' AND BLPERIOD IN ('4','5','F')	925	NA	1,649	NA
QADFUL2X	Fuel oil	UTILY EQ '130'	1,650	NA	2,884	NA
QADFUL2X	Bottled or tanked gas	UTILY EQ '150'	2,000	NA	2,991	NA
QADFUL2X	Other fuels	UTILY EQ '180'	900	NA	1,099	NA
QADFUL2X	Trash/garbage collection	UTILY EQ '210'	139	NA	232	NA
QADFUL2X	Water softening	UTILY EQ '270'	207	NA	279	NA
QADFUL2X	Septic tank cleaning	UTILY EQ '280'	375	NA	1,497	NA
QADFUL3X	Piped-in water/sewerage, 1-2 months	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('1','2','3','A','B')	232	NA	306	NA
QADFUL3X	Piped-in water/sewerage, annual and other	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN	421	NA	600	NA

Variable	Description	Condition ('4','5','F')	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QADFUL3X	Electricity, 1-2 months	UTILY EQ '100' AND BLPERIOD IN ('1','2','3','A','B')	489	NA	608	NA
QADFUL3X	Electricity, annual and other	UTILY EQ '100' AND BLPERIOD IN ('4','5','F')	143	NA	363	NA
QADFUL3X	Natural gas, 1-2 months	UTILY EQ '110' AND BLPERIOD IN ('1','2','3','A','B')	375	NA	483	NA
QADFUL3X	Natural gas, annual and other	UTILY EQ '110' AND BLPERIOD IN ('4','5','F')	667	NA	1,584	NA
QADFUL3X	Fuel oil	UTILY EQ '130'	1,725	NA	2,051	NA
QADFUL3X	Bottled or tanked gas	UTILY EQ '150'	2,200	NA	2,686	NA
QADFUL3X	Other fuels	UTILY EQ '180'	645	NA	773	NA
QADFUL3X	Trash/garbage collection	UTILY EQ '210'	150	NA	255	NA
QADFUL3X	Water softening	UTILY EQ '270'	227	NA	366	NA
QADFUL3X	Septic tank cleaning	UTILY EQ '280'	478	NA	760	NA
QADINE1X	Computer information services	NA	120	NA	160	NA
QADINE2X	Computer information services	NA	120	NA	165	NA
QADINE3X	Computer information services	NA	120	NA	163	NA
QADPSP2X	Landscape/outdoor building repair	('140'<=CRMCODEB AND CRMCODEB<='190')	1,900	NA	3,300	NA
QADPSP2X	Plumbing, electrical, heat, AC	('200'<=CRMCODEB AND CRMCODEB<='220')	1,000	NA	2,507	NA
QADPSP2X	Flooring, carpeting	('230'<=CRMCODEB AND CRMCODEB<='232')	1,368	NA	1,733	NA
QADPSP2X	Insulation, roofing, siding, masonry, windows	('240'<=CRMCODEB AND CRMCODEB<='290')	3,500	NA	7,400	NA
QADPSP2X	Construction and additions	(CRMCODEB='100' CRMCODEB='110')	4,700	NA	15,333	NA
QADPSP2X	Room finishing and remodeling	(CRMCODEB='120' CRMCODEB='130')	9,000	NA	21,000	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QADPSP2X	Other repair and combined codes	(CRMCODEB='300' CRMCODEB='310')	2,000	NA	3,433	NA
QADPSP3X	Landscape/outdoor building repair	('140'<=CRMCODEB AND CRMCODEB<='190')	2,000	NA	3,033	NA
QADPSP3X	Plumbing, electrical, heat, AC	('200'<=CRMCODEB AND CRMCODEB<='220')	1,097	NA	2,633	NA
QADPSP3X	Flooring, carpeting	('230'<=CRMCODEB AND CRMCODEB<='232')	2,400	NA	3,153	NA
QADPSP3X	Insulation, roofing, siding, masonry, windows	('240'<=CRMCODEB AND CRMCODEB<='290')	2,500	NA	4,767	NA
QADPSP3X	Construction and additions	(CRMCODEB='100' CRMCODEB='110')	6,286	NA	21,400	NA
QADPSP3X	Room finishing and remodeling	(CRMCODEB='120' CRMCODEB='130')	5,000	NA	9,337	NA
QADPSP3X	Other repair and combined codes	(CRMCODEB='300' CRMCODEB='310')	1,875	NA	6,186	NA
QADPSPLX	Landscape/outdoor building repair	('140'<=CRMCODEB AND CRMCODEB<='190')	2,200	NA	4,133	NA
QADPSPLX	Plumbing, electrical, heat, AC	('200'<=CRMCODEB AND CRMCODEB<='220')	900	NA	1,157	NA
QADPSPLX	Flooring, carpeting	('230'<=CRMCODEB AND CRMCODEB<='232')	2,269	NA	3,933	NA
QADPSPLX	Insulation, roofing, siding, masonry, windows	('240'<=CRMCODEB AND CRMCODEB<='290')	2,370	NA	4,709	NA
QADPSPLX	Construction and additions	(CRMCODEB='100' CRMCODEB='110')	18,535	NA	52,667	NA
QADPSPLX	Room finishing and remodeling	(CRMCODEB='120' CRMCODEB='130')	6,000	NA	21,667	NA
QADPSPLX	Other repair and combined codes	(CRMCODEB='300' CRMCODEB='310')	800	NA	1,733	NA
QADPTAX	Property taxes	OWNYB EQ '100' OR OWNYB EQ '200'	10,000	NA	15,128	NA
QADPTAX	Property taxes	OWNYB EQ '300'	10,300	NA	22,209	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QADPTAX	Expenses for other properties	OWNYB EQ '400' OR OWNYB EQ '500'	6,000	NA	10,326	NA
QADRSP2X	Rented supplies for construction, repair and maintenance	NA	450	NA	800	NA
QADRSP3X	Rented supplies for construction, repair and maintenance	NA	235	NA	339	NA
QADRSP4X	Rented supplies for construction, repair and maintenance	NA	250	NA	1,095	NA
QBLNCM1G	Principal balance outstanding at the beginning of the month 3 months ago, home equity loan	('100' LE OWNYG LE '500') AND (LOANTYPE EQ '2')	126,857	NA	181,009	NA
QBLNCM1X	Principal balance outstanding at the beginning of the month 3 months ago	('100' LE OWNYF LE '500') AND (LOANTYPE EQ '1')	401,177	NA	568,041	NA
QBLNCM2G	Principal balance outstanding at the beginning of the month 2 months ago, home equity loan	('100' LE OWNYG LE '500') AND (LOANTYPE EQ '2')	126,157	NA	179,773	NA
QBLNCM2X	Principal balance outstanding at the beginning of the month 2 months ago	('100' LE OWNYF LE '500') AND (LOANTYPE EQ '1')	400,000	NA	567,269	NA
QBLNCM3G	Principal balance outstanding at the beginning of the month 1 month ago, home equity loan	('100' LE OWNYG LE '500') AND (LOANTYPE EQ '2')	125,454	NA	179,081	NA
QBLNCM3X	Principal balance outstanding at the beginning of the month 1 month ago	('100' LE OWNYF LE '500') AND (LOANTYPE EQ '1')	400,253	NA	565,134	NA
QHI3MCX	Dental insurance payments	HHICODE EQ '4' AND HHISPECT IN ('1')	900	NA	2,441	NA
QHI3MCX	Vision insurance payments	HHICODE EQ '4' AND HHISPECT IN ('2')	594	NA	1,554	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QHI3MCX	Prescription drug, mental health and other insurance payments	HHICODE EQ '4' AND HHISPECT IN ('3','4','5','6','B','F','G')	2,033	NA	5,436	NA
QHI3MCX	HMO, fee for service, commercial Medicare supplement covering one individual, individually obtained	HHICODE NE '4' AND HHICOVQ <= 1 AND HHIGROUP IN ('1')	2,679	NA	3,646	NA
QHI3MCX	HMO, fee for service, commercial Medicare supplement covering one individual, group insurance through employer or organization	HHICODE NE '4' AND HHICOVQ <= 1 AND HHIGROUP IN ('2' '3')	2,400	NA	2,965	NA
QHI3MCX	HMO, fee for service, commercial Medicare supplement covering more than one individual, individually obtained	HHICODE NE '4' AND HHICOVQ > 1 AND HHIGROUP IN ('2' '3')	3,750	NA	4,882	NA
QHI3MCX	HMO, fee for service, commercial Medicare supplement covering more than one individual, group insurance through employer or organization	HHICODE NE '4' AND HHICOVQ > 1 AND HHIGROUP IN ('1')	4,950	NA	8,253	NA
QLMPSUMX	Special lump sum mortgage payment (vacation home)	OWNYI EQ '300'	4,500	NA	22,149	NA
QLMPSUMX	Special lump sum mortgage payment (other property)	OWNYI EQ '400' OR OWNYI EQ '500'	800	NA	9,067	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QLMPSUMX	Special lump sum mortgage payment (owned home)	OWNYI EQ '100' OR OWNYI EQ '200'	6,000	NA	32,404	NA
QLR3MCMX	Amount paid for ground or land rent (vacation home)	OWNYI EQ '300'	1,500	NA	2,367	NA
QLR3MCMX	Ground rent	OWNYI EQ '100' OR OWNYI EQ '200'	1,995	NA	2,467	NA
QPRINM1G	Reduction mortgage principal, home equity loan (owned home)	(OWNYI EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	925	NA	1,339	NA
QPRINM1G	Reduction mortgage principal, home equity loan (owned vacation)	(OWNYI EQ '300') AND (LOANTYPE EQ '2')	152	NA	764	NA
QPRINM1G	Reduction mortgage principal, home equity loan (other property)	(OWNYI EQ '400' OR OWNYG EQ '500') AND (LOANTYPE EQ '2')	0	NA	417	NA
QPRINM1X	Reduction of mortgage principal (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	1,129	NA	1,977	NA
QPRINM1X	Reduction of mortgage principal (owned vacation)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,354	NA	2,396	NA
QPRINM1X	Reduction of mortgage principal (other property)	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,079	NA	2,510	NA
QPRINM2G	Reduction mortgage principal, home equity loan (owned home)	(OWNYI EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	1,158	NA	1,392	NA
QPRINM2G	Reduction mortgage principal, home equity loan (owned vacation)	(OWNYI EQ '300') AND (LOANTYPE EQ '2')	322	NA	769	NA
QPRINM2G	Reduction mortgage principal, home equity loan	(OWNYI EQ '400' OR OWNYG EQ '500') AND (LOANTYPE EQ '2')	0	NA	420	NA

Variable	Description (other property)	Condition '2')	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
QPRINM2X	Reduction of mortgage principal (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	1,124	NA	1,739	NA
QPRINM2X	Reduction of mortgage principal (owned vacation)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,254	NA	2,143	NA
QPRINM2X	Reduction of mortgage principal (other property)	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,207	NA	3,178	NA
QPRINM3G	Reduction mortgage principal, home equity loan (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '2')	1,166	NA	1,399	NA
QPRINM3G	Reduction mortgage principal, home equity loan (owned vacation)	(OWNYF EQ '300') AND (LOANTYPE EQ '2')	153	NA	511	NA
QPRINM3G	Reduction mortgage principal, home equity loan (other property)	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '2')	0	NA	422	NA
QPRINM3X	Reduction of mortgage principal (owned home)	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	1,119	NA	1,737	NA
QPRINM3X	Reduction of mortgage principal (owned vacation)	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,259	NA	2,154	NA
QPRINM3X	Reduction of mortgage principal (other property)	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,089	NA	2,312	NA
QRT3MCMX	Rent	NA	5,700	NA	7,691	NA
RNTEQVX	Estimated monthly rental value of owned home	OWNYI EQ '100'	3,000	NA	4,626	NA
RNTEQVX	Estimated monthly rental value of owned vacation home	OWNYI EQ '300'	5,000	NA	10,332	NA
SALEX	Sale of boats, with motors	VEHICYC EQ '160'	8,000	NA	16,150	NA
TELCEL1X	Cellular phone service	NA	350	NA	471	NA

Variable	Description	Condition	2011 Upper Critical Value	2011 Lower Critical Value	2011 Upper Topcode Value	2011 Lower Topcode Value
TELCEL2X	Cellular phone service	NA	350	NA	447	NA
TELCEL3X	Cellular phone service	NA	352	NA	452	NA
TELRES1X	Residential telephone/pay phones	NA	206	NA	275	NA
TELRES2X	Residential telephone/pay phones	NA	210	NA	275	NA
TELRES3X	Residential telephone/pay phones	NA	210	NA	271	NA
TELVOP1X	Total expense for Voice Over IP service	NA	230	NA	267	NA
TELVOP2X	Total expense for Voice Over IP service	NA	230	NA	267	NA
TELVOP3X	Total expense for Voice Over IP service	NA	231	NA	314	NA
TOTYUPDX	Lodging on out-of-town trips	TOTYUPDY EQ '130'	2,341	NA	3,186	NA
TRNONCUX	Lodging on out-of-town trips	TRNONCUY EQ '130'	1,092	NA	3,590	NA

V. ESTIMATION PROCEDURE

A. DESCRIPTION OF PROCEDURES

The following section describes procedures for using microdata for the estimation of descriptive statistics such as aggregates and means. A sample program written in SAS that illustrates this methodology is in [Section VII. MICRODATA VERIFICATION AND ESTIMATION METHODOLOGY](#).

1. GENERAL CONCEPTS

a. SAMPLE VERSUS POPULATION ESTIMATES

As described in [Section X.C. WEIGHTING](#), each CU in the CE sample represents a given number of CUs in the U.S. population. The translation of sample CUs into a population estimate is accomplished by weighting. FINLWT21, one of the 45 weight variables associated with each CU, is used to estimate the population. Procedures for estimating sample (unweighted) and population (weighted) statistics are described in [Sections V.A.2. ESTIMATION OF UNWEIGHTED STATISTICS](#) and [V.A.3. ESTIMATION OF WEIGHTED STATISTICS](#) below.

b. CALENDAR PERIOD VERSUS COLLECTION PERIOD

Because the rotating panel design of the Interview survey affects the structure of the data files, one must be aware of the distinction between calendar period and collection period in producing estimates. (See [Section X.A. SURVEY SAMPLE DESIGN](#) for a description of the panel rotation scheme.)

Respondents are asked to report expenditures made since the first of the month three months prior to the interview month. For example, if a CU is interviewed in February of 2011, they are reporting expenditures for November and December of 2010, and January of 2011. This is illustrated in the rotation chart below. The period between November 1 and January 31 is referred to as the reference period for the interview.

Month of Expenditure	Month of Interview					
	January Panel A	February Panel B	March Panel C	April Panel A	May Panel B	June Panel C
October	X					
November	X	X				
December	X	X	X			
January		X	X	X		
February			X	X	X	
March				X	X	X
April					X	X
May						X

Please note that UCCs 006001 and 006002 -- total amount owed to creditors (2nd and 5th interviews) -- do not adhere to the above mapping scheme. They are mapped to the month of the interview, *not* to preceding months.

The microdata files are organized and identified by collection period, i.e., the month of the interview. Thus, the MTBI file for the second quarter of 2011 contains expenditure data collected in interviews that took place in April, May, and June of 2011. Referring to the rotation chart, one can see that this MTBI file contains expenditures made between January 2011 and May 2011. Similarly, the MTBI file for the third quarter of 2011 (interviews conducted between July and September) contains expenditures made between April and August 2011. To obtain all expenditures made in January 2011, one should access the MTBI files for both the first and second quarters of 2011. The MTBI file for the first quarter of 2011 would contain January expenditures made by CUs interviewed in February and March 2011, while the MTBI file for the second quarter of 2011 would contain January expenditures made by CUs interviewed in April 2011.

As a consequence, users should be clear as to whether they desire estimates based on when expenditures were reported (collection period) or when expenditures were made (calendar period).

To produce an annual estimate for 2011 based on collection period, that is, from all interviews conducted in 2011, data users need data only from Q111 through Q114 files. However, to produce a 2011 annual estimate based on expenditures made in 2011 (calendar period), one needs to access five collection-quarter files, the first quarter of 2011 through the first quarter of 2012. (The estimates published by BLS are based on calendar periods that require the subsequent year's first quarter data).

The ITBI files are derived in a slightly different manner than MTBI. As was mentioned in the description of the ITBI file, the data on the file represents the conversion of annual and point-of-interview data into a monthly format compatible with MTBI. Looking at a CU interviewed in January 2011, as an example, nonfarm business income earned over the previous 12 months would be collected and recorded as such on the FMYL file. For the ITBI file, this annual amount would be divided by 12, and separate records would be created for October, November, and December each containing that amount.

The variables REF_MO, REF_YR, QINTRVMO, and QINTRVYR indicate reference month of expenditure, reference year of expenditure, interview month, and interview year, respectively. REF_MO and REF_YR, in the MTBI and ITBI files, can be used to select all data for the desired period in which expenditures were made. Because of the interview rotation pattern, there is a one-month to three-month lag between the time an expenditure occurs and the time it is reported. QINTRVMO and QINTRVYR can be used to identify the collection reference period.

In addition to its effect on the selection of data prior to estimation, this distinction between collection period and calendar period also directly affects the estimation procedure for producing means. In computing means based on data collected from all CUs interviewed in a given time frame (e.g., year, quarter, 8 months), the potential contribution of each CU to the mean is the same. That is each CU can contribute data from the entire reference period to the estimate. On the other hand, in computing means based on expenditures made in a given time frame, the potential contribution of each CU to the mean varies depending on how closely the reference period for an interview coincides with the time frame desired. To see this more clearly, refer once again to the rotation chart. To compute a mean for expenditures made during the first quarter of the year, one would obtain data from CUs interviewed between February and June. However, their potential contributions to the mean are not equal. CUs interviewed in February only contribute 'one-third' of the expenditures they made during the reference period to the estimate (their January expenditures), while CUs interviewed in April contribute all their expenditures to the estimate.

As a result, the population (the denominator in the equation for a mean) has to be adjusted to account for the difference in contribution among CUs. At BLS we create a variable, MO_SCOPE, that shows the number of months a CU's interview can contribute to the mean or is "in scope" for the time period the estimate will cover. All CUs interviewed in the same month will have identical values for MO_SCOPE, as their potential contribution to the mean is the same. Thus, MO_SCOPE will be conditioned on the value of QINTRVMO (and possibly QINTRVYR).

Continuing with our example of estimating a mean for expenditures made during the first quarter of the year, we would access data from files for the first and second quarter of the year. MO_SCOPE would be derived as explained below.

```
If QINTRVMO is 1 then MO_SCOPE is 0
if QINTRVMO is 2 then MO_SCOPE is 1
if QINTRVMO is 3 then MO_SCOPE is 2
if QINTRVMO is 4 then MO_SCOPE is 3
if QINTRVMO is 5 then MO_SCOPE is 2
if QINTRVMO is 6 then MO_SCOPE is 1
```

Note that MO_SCOPE has a value of 0 for CUs interviewed in January, as they report expenditures for October through December, totally outside the period of interest. One could extract a data set of only CUs interviewed between February and June to eliminate that condition. How MO_SCOPE is used in estimation will be discussed later.

c. TIME PERIOD DIFFERENCES

It has been mentioned previously that these files contain data that can cover a variety of time periods. Values for MTBI and ITBI variables are monthly. Values for variables on the FMLY and MEMB files can vary. For example income variables are for annual time periods and demographic variables are as of the time of interview.

This is particularly important where the user may have a choice between variables on two files that contain the same data adjusted to reflect different time periods. For instance, FMLY income data are annual covering the 12-month period prior to the collection month, whereas in ITBI these income data have been converted into monthly values. Selected demographic characteristic variables in the FMLY files contain values as of the date of interview. In the ITBI files, these values are treated as if they were

"annual" amounts, and are converted to monthly records by dividing the values by 12. To illustrate each of these cases, the following example looks at a CU interviewed in April whose reference person is 60 years old at the time of interview and where CU income from wages and salaries over the previous 12 months is \$48,000.

<u>VARIABLE</u>	<u>FMLY</u>		<u>UCC</u>	<u>ITBI</u>	
	<u>AMOUNT</u>			<u>AMOUNT</u>	<u>MONTH</u>
FSALARYM	\$48,000		900000	\$4,000	JAN
			900000	\$4,000	FEB
			900000	\$4,000	MAR
AGE_REF	60		980020	5	JAN
				5	FEB
				5	MAR

Users should be aware of these time period differences when using the data.

d. COMPARISONS WITH PUBLISHED CE DATA

The mean values for some income and expenditure items which appear in CE publications are different than those derived from the Interview public-use microdata because some variables are topcoded or suppressed on the public-use files, but are not so treated on BLS's own data base in producing published data. (For detailed topcoding information, see [Section IV. TOPCODING AND OTHER NONDISCLOSURE REQUIREMENTS.](#))

2. ESTIMATION OF UNWEIGHTED STATISTICS

a. AGGREGATE STATISTICS

To compute unweighted aggregate expenditures from data on the MTBI files, one would sum the value of the COST field for MTBI records of interest. These records could be selected on the basis of factors such as item category, month or year of occurrence, or characteristics of the CU or its members. While MTBI is a monthly file, there is no summation done at the monthly level for each CU for expenditures with similar UCC and gift characteristics. Thus one may find multiple MTBI records with identical characteristics including COST, if the CU reported the expenditures as discrete purchases. A similar approach can be applied to estimate aggregate income from data on the ITBI files, summing the VALUE field on the appropriate records.

Certain MTBI and ITBI item categories are collected only in the 5th interview. Therefore, the data are reported by only one-fourth of the sample at any time. For some categories, the reported values have been multiplied by 4 to expand them to represent the total sample, while in other categories, this has not been done. When estimating for these UCCs, values should be multiplied by 4 for total sample representation. (See [Sections III.G.3 MONTHLY EXPENDITURES \(MTBI\) FILE](#) and [III.G.4 INCOME \(ITBI\) FILE.](#))

The estimation of aggregates for FMLY and MEMB file variables is similar to that for MTBI and ITBI variables. To estimate aggregates from data on the FMLY file, one would sum the value of the desired variable field for FMLY records selected on the basis of, for example, other CU characteristic variables on the FMLY file, characteristics of CU members, expenditures made, and month or year of interview. Aggregates for MEMB file variables would be developed in a similar fashion.

The user must be careful in interpreting what the aggregate represents because of the time period differences between variables on different files. For example, summing the COST field of MTBI records representing purchases for a UCC that occurred in a specific month will yield an aggregate monthly

expenditure for that UCC. However, summing the value of a FMLY file variable such as FSALARYM for all CUs interviewed in a specific month will yield an aggregate annual value for that variable.

In general, one can use an aggregate derived for a certain time period to extrapolate an aggregate estimate for a longer time period. A typical case is the estimation of annual aggregates based on an aggregate using less than 12 months of data. To do this, divide the number of months for which the estimate is desired (12) by the number of months of expenditure data being used and multiply the aggregate by that quotient.

b. MEANS

There are two types of means that are customarily derived from CE data. The most common is the sample mean computed over all CUs. The other is the mean of those reporting computed over only those CUs actually reporting the item. The following sections look at each type of mean.

(i) SAMPLE MEANS

Unweighted sample means are derived by computing an aggregate estimate for the desired item and dividing it by the sample size over the time period being estimated. Deriving an aggregate estimate has already been discussed; ascertaining the correct sample size is the next task.

The Interview survey is designed such that the CUs interviewed in each quarter represent one independent sample. Since there is one FMLY record for each sample CU, the national sample for the first quarter of 2011 is 6869. (See [SECTION III.B. RECORD COUNTS](#).) The appropriate sample size for any time period will reflect the number of interviewed CUs eligible to report data over the period adjusted by the number of independent samples represented. As explained earlier, the major consideration is whether the desired estimate is a collection period estimate or a calendar period estimate.

To calculate the sample size for a collection period estimate, divide the total number of CUs interviewed by the quotient of the number of months in which these interviews occurred divided by 3. For example, one might wish to estimate the annual sample mean expenditure for men's shirts for all CUs interviewed in 2011. If one were to divide the aggregate expenditure on men's shirts from these interviews by the total number of CUs interviewed, one would get an annual sample mean about 1/4 as large as it should be, since the number of CUs interviewed represented four independent samples (one sample for each quarter of 2011). In fact, one would have derived the average quarterly sample mean rather than the annual sample mean. To get the annual sample mean, one would have to divide the total number of CUs interviewed by 4 (12 months divided by 3), thereby computing the average sample size over the year, and divide the aggregate by that amount.

As mentioned earlier, when one computes a calendar period estimate, the variable MO_SCOPE is required to adjust the sample size for the difference in potential contribution among CUs. Since one independent sample of CUs is represented in each quarter, the sum of MO_SCOPE for one quarter can be up to 3 times the independent sample (if MO_SCOPE = 3 for every CU interviewed in the quarter, the sum of MO_SCOPE would be equal 3 times the independent sample). To calculate the sample size for a calendar period estimate, sum MO_SCOPE for the appropriate CUs and divide by 3. Note that this makes sense in those instances where MO_SCOPE does not equal 3. Referring to the example where MO_SCOPE was introduced, we can see that summing MO_SCOPE for CUs interviewed in the second quarter of the year (QINTRVMO = 4-6) would yield approximately one independent sample as CUs interviewed in June would be counted twice while CUs interviewed in April would not be counted. Dividing this amount by 3 would yield a sample size of 1/3 the independent sample. Keep in mind that only 1/3 of the expenditures reported in those interviews occurred within the time period of the aggregate being estimated. Only April data from May interviews and April-May data from June interviews would be included in the aggregate.

One can see how the computation of sample size is affected when one calculates the commonly-used annual calendar period estimate. A 2011 estimate would be based on data from interviews over five quarters. MO_SCOPE would take on the following values:

	Interview Month and Year									
	2011				2011					
	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>
MO_SCOPE	0	1	2	3	3	3	3	3	3	3
			2011	 	2012					
MO_SCOPE	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>				
	3	3	3	3	2	1				

Summing MO_SCOPE for each of the five quarters and dividing by 3 would yield a value of 1/3 the independent sample for the first quarter of 2011, 2/3 the independent sample for the first quarter of 2011, and one independent sample for the second, third, and fourth quarters of 2011. Summed over the five quarters, this represents 4 independent samples, so the result should be divided by 4 to get the correct sample size of one average independent sample. Thus, the general rule in computing sample size for deriving an annual calendar period estimate is to sum MO_SCOPE over the five quarters and divide by 12.

(ii) MEANS OF THOSE REPORTING

The only difference between estimating a mean-of-those-reporting and estimating a sample mean is in selecting the appropriate CUs to use in the computation. The CUs to be used depend on the objective of the analysis. In deriving a sample mean, all sample units interviewed over the time period covered are included in the computation of sample size whether or not they reported the item being estimated. In computing a mean of those reporting, only those CUs reporting the desired item would be included. The aggregate estimate used in the numerator is the same in either case. The adjustments made for MO_SCOPE and the fact that each quarter represents one independent sample would apply in this case as well. It should be noted that means of those reporting cannot be used in all analyses in the same ways that means estimated for the U.S. population can. For example, means of those reporting specific items, such as rented dwellings, owned dwellings and other lodging, cannot be aggregated to compute means of those reporting larger categories, such as shelter. Similarly, the ratio of the mean for those reporting a specific item (e.g., rented dwellings) to the mean of those reporting an expenditure for at least one element of the larger category (e.g., shelter), cannot be interpreted as the expenditure share for those reporting either the specific item or the larger category. Proper care should be used when interpreting results computed only from those reporting an expenditure.

3. ESTIMATION OF WEIGHTED STATISTICS

By applying weights when computing aggregates or means, one transforms the results from sample estimates to population estimates. There are 45 weight variables on the FMLY file, WTREP01-WTREP44 and FINLWT21. All the WTREP variables are half-sample replicate weights that should be used in variance computation. Use FINLWT21 to estimate weighted statistics for the population of CUs.

Users should follow the procedures for estimating unweighted statistics described above. When estimating weighted aggregates, the desired cost or value field should be multiplied by FINLWT21 at the CU level before summing across all appropriate records. In determining the proper sample size when computing collection period means, divide the sum of FINLWT21 for the CUs interviewed by the quotient of the number of months in which these interviews occurred divided by 3. Where calendar period means are to be estimated, multiply MO_SCOPE by FINLWT21 for each CU prior to summing and dividing by 3.

B. DESCRIPTION OF FORMULAS

Expenditure items will be referred to in these descriptions, but income items can be handled similarly except where otherwise stated.

Definition of Terms:

Let

- S = all CUs in the subpopulation of interest
- k = item(s) of interest
- q = number of months for which estimate is desired
- m = number of months of interviews whose expenditures are to be used in calculating the estimate (collection period estimate)
- r = number of months in which expenditures were made to be used in calculating the estimate (calendar period estimate)
- j = individual CU in subpopulation S
- t = month of expenditure
- i = month of interview
- MSC = MO_SCOPE value

Then

- $E_{j,k,i}$ = 3-month expenditure by CU $_j$ on item k reported at month i interview
- $E_{j,k,t}$ = monthly expenditure by CU $_j$ on item k made during month t
- $W_{j,i,F21}$ = weight assigned to CU $_j$ for interview at month i
- $W_{j,t,F21}$ = weight assigned to CU $_j$ for interview where CU $_j$ makes expenditure during month t

The F21 denotes FINLWT21, which is used for population estimates.

1. AGGREGATE EXPENDITURE ESTIMATES (UNWEIGHTED)

An estimate of unweighted aggregate expenditures for a collection period can be expressed as:

${}_{UK} X_{(S,k)(q,m)}$ = an unweighted collection (UK) period estimate of aggregate expenditures (X) by CUs in subpopulation S , indexed from $j = 1$ through n , on item k over q months of interviews, where data collected over m months of interviews are used.

or

$${}_{UK} X_{(S,k)(q,m)} = \left(\frac{q}{m} \right) \sum_{i=1}^m \left(\sum_{j=1}^n E_{k,j} \right)_i$$

An estimate of unweighted aggregate expenditures for a calendar period can be expressed as:

${}_{UC} X_{(S,k)(q,r)}$ = an unweighted calendar (UC) period estimate of aggregate expenditures (X) by CUs in subpopulation S , indexed from $j = 1$ through n , on item k over q months, where expenditures made over r months are used.

or

$${}_{UC} X_{(S,k)(q,r)} = \left(\frac{q}{r} \right) \sum_{t=1}^r \left(\sum_{j=1}^n E_{k,j} \right)_t$$

2. SAMPLE MEAN EXPENDITURE ESTIMATES (UNWEIGHTED)

An estimate of an unweighted mean expenditure for a collection period can be expressed as:

${}_{UK}\bar{X}_{(S,k)(q,m)}$ = an unweighted collection period estimate of the mean expenditure by CUs in subpopulation S on item k over a period of q months, where data collected over m months of interviews are used.

or

$${}_{UK}\bar{X}_{(S,k)(q,m)} = \left(\frac{{}_{UK}X_{(S,k)(q,m)}}{\sum_{i=1}^m \left(\sum_{j=1}^n S_j \right)_i} \right) \left(\frac{m}{3} \right)$$

An estimate of an unweighted mean expenditure for a calendar period can be expressed as:

${}_{UC}\bar{X}_{(S,k)(q,r)}$ = an unweighted calendar period estimate of the mean expenditure by CUs in subpopulation S on item k over a period of q months, where expenditures made over r months are used.

or

$${}_{UC}\bar{X}_{(S,k)(q,r)} = \left(\frac{{}_{UC}X_{(S,k)(q,r)}}{\sum_{t=1}^{r+3} \left(MSC \sum_{j=1}^n S_j \right)_t} \right) r$$

Note: For $t=1$, MO_SCOPE (MSC) = 0, since CUs interviewed in the first month for which the estimate is to be generated report expenditures outside the estimate period, i.e., in the previous quarter, month, etc. For $t=(r+3)$, MO_SCOPE = 1 since only 1 month's worth of expenditures have a chance to contribute to the calendar period of r months.

3. AGGREGATE EXPENDITURE ESTIMATES (WEIGHTED)

An estimate of weighted aggregate expenditures for a collection period can be expressed as:

${}_{WK}X_{(S,k)(q,m)}$ = a weighted collection (*WK*) period estimate of aggregate expenditures by CUs in subpopulation *S* on item *k* over a period of *q* months, where data collected over *m* months of interviews are used.

or

$${}_{WK}X_{(S,k)(q,m)} = \left(\frac{q}{m} \right) \sum_{i=1}^m \left(\sum_{j=1}^n (W_{j,F21} E_{k,j}) \right)_i$$

An estimate of weighted aggregate expenditures for a calendar period can be expressed as:

${}_{WC}X_{(S,k)(q,r)}$ = a weighted calendar (*WC*) period estimate of aggregate expenditures by CUs in subpopulation *S* on item *k* over *q* months, where expenditures made over *r* months are used.

or

$${}_{WC}X_{(S,k)(q,r)} = \left(\frac{q}{r} \right) \sum_{t=1}^r \left(\sum_{j=1}^n (W_{j,F21} E_{k,j}) \right)_t$$

4. SAMPLE MEAN EXPENDITURE ESTIMATES (WEIGHTED)

An estimate of a weighted mean expenditure for a collection period can be expressed as:

${}_{WK}\bar{X}_{(S,k)(q,m)}$ = a weighted collection (*WK*) period estimate of the mean expenditure by CUs in subpopulation *S* on item *k* over a period of *q* months, where data collected over *m* months of interviews are used.

or

$${}_{WK}\bar{X}_{(S,k)(q,m)} = \left(\frac{{}_{WK}X_{(S,k)(q,m)}}{\sum_{i=1}^m \left(\sum_{j=1}^n W_{j,F21} \right)_i} \right) \left(\frac{m}{3} \right)$$

An estimate of a weighted mean expenditure for a calendar period can be expressed as:

${}_{WC} \bar{X}_{(S,k)(q,r)}$ = a weighted calendar (WC) period estimate of the mean expenditure by CUs in subpopulation S on item k over a period of q months, where expenditures made over r months are used.

or

$${}_{WC} \bar{X}_{(S,k)(q,r)} = \left(\frac{{}_{WC} X_{(S,k)(q,r)}}{\sum_{t=1}^{r+3} \left[MSC \left(\sum_{j=1}^n W_{j,F21} \right) \right]_t} \right) \frac{1}{r}$$

Note: For $t=1$, MO_SCOPE (MSC) = 0, since CUs interviewed in the first month for which the estimate is to be generated report expenditures outside the estimate period, i.e., in the previous quarter, month, etc. For $t = (r+3)$, $MO_SCOPE = 1$ since only 1 month's worth of expenditures have a chance to contribute to the calendar period of r months.

VI. RELIABILITY STATEMENT

A. DESCRIPTION OF SAMPLING AND NONSAMPLING ERRORS

Sample surveys are subject to two types of errors, sampling and non-sampling. Sampling errors occur because observations are not taken from the entire population. The standard error, which is the accepted measure for sampling error, is an estimate of the difference between the sample data and the data that would have been obtained from a complete census. The sample estimate and its estimated standard error enable one to construct confidence intervals.

Assuming the normal distribution applies to the means of expenditures, the following statements can be made:

- (1) The chances that an estimate from a given sample would differ from a complete census figure by less than one standard error are approximately 68 out of 100.
- (2) The chances that the difference would be less than 1.6 times the standard error are approximately 90 out of 100.
- (3) The chances that the difference would be less than two times the standard error are approximately 95 out of 100.

Nonsampling errors can be attributed to many sources, such as definitional difficulties, differences in the interpretation of questions, inability or unwillingness of the respondent to provide correct information, mistakes in recording or coding the data obtained, and other errors of collection, response, processing, coverage, and estimation of missing data. The full extent of the nonsampling error is unknown. Estimates using a small number of observations are less reliable. A small amount of nonsampling error can cause a small difference to appear significant even when it is not. It is probable that the levels of estimated expenditures obtained in the Interview survey are generally lower than the "true" level due to the above factors.

B. ESTIMATING SAMPLING ERROR

1. VARIANCE ESTIMATION

Variances can be estimated in many ways. The method illustrated below (a pseudo replication technique) is chosen because it is accurate and simple to understand. The basic idea is to construct several artificial "subsamples" from the original sample data such that the variance information of the original data is preserved in the subsamples. The subsamples (or pseudo replicates) can then be used to approximate variances for the estimates. Forty-four separate subsamples can be extracted from the data base using the replicate weight variables, WTREP01-WTREP44, associated with each CU. Note that only half of the CUs are assigned to each of the 44 replicates. The replicate weight variable contains a value greater than 0 for CUs assigned to that replicate. A value of missing is assigned to the weight variable for those CUs not included in a particular replicate.

The notation for the weighted collection period and calendar period estimates of aggregate expenditures in [Section V.B.3 AGGREGATE EXPENDITURE ESTIMATES \(WEIGHTED\)](#) does not explicitly identify the replicate as a variable because to calculate an aggregate (or mean) only FINLWT21 is used.

An estimate for the variance of an aggregate or mean estimate can be computed by generating 44 separate estimates using the 44 replicate weights and employing the standard formula for computing sample variance. To illustrate the estimation of variance, the notation must first be expanded to include the replicates explicitly.

Expenditure items will be referred to in these descriptions, but income items can be handled similarly except where otherwise stated.

Let the subscript "a" represent one of the 44 sets of replicate weights on the FMLY files. Following the earlier notation in [Section V.B.](#), we have.

$AK X_{(S,k)(q,m),a}$ = a collection period estimate of aggregate expenditures by CUs in subpopulation S on item k over a period of q months, using data collected over m months of interviews, calculated using the weights of the ath replicate

and,

$AK \bar{X}_{(S,k)(q,m),a}$ = a collection period estimate of the mean expenditure by CUs in subpopulation S on item k over a period of q months, using data collected over m months of interviews, calculated using the weights of the ath replicate

Note that an estimate using any one of the first 44 replicate weights uses only part of the expenditure

data; in general: $AK X_{(S,k)(q,m),1}, \dots, AK X_{(S,k)(q,m),44} \neq WK X_{(S,k)(q,m)}$

Using standard variance formula, the variance of aggregate expenditures can be estimated as follows:

$$V_{WK} X_{(S,k)(q,m)} = \frac{1}{44} \sum_{a=1}^{44} (AK X_{(S,k)(q,m),a} - WK X_{(S,k)(q,m)})^2$$

Similarly, estimates for the variances of ${}_{WK}\bar{X}_{(s,k)(q,m)}$ can be given as:

$$V({}_{WK}\bar{X}_{(s,k)(q,m)}) = \frac{1}{44} \sum_{a=1}^{44} ({}_{AK}\bar{X}_{(s,k)(q,m)a} - {}_{WK}\bar{X}_{(s,k)(q,m)})^2$$

2. STANDARD ERROR OF THE MEAN

The standard error of the mean, $S.E.(\bar{X})$, is used to obtain confidence intervals that evaluate how close the estimate may be to the true population mean. $S.E.(\bar{X})$ is defined as the square root of the variance of the mean. For example, the weighted calendar period estimated mean expenditure for total food by all consumer units in 2011 is \$7,143.84. The standard error for this estimate is \$50.30. A 95 percent confidence interval can be constructed around this estimate, bounded by values 1.96 times the standard error less than and greater than the estimate, that is, from \$7,045.25 to \$7,242.43. We could conclude with 95 percent confidence that the true population mean expenditure for food for all consumer units in 2011 lies within the interval \$7,045.25 to \$7,242.43.

3. STANDARD ERROR OF THE DIFFERENCE BETWEEN TWO MEANS

Standard errors may also be used to perform hypothesis testing, a procedure that evaluates population parameters using sample estimates. The most common types of hypotheses are: 1) the population parameters are identical, and 2) they are different.

For example, the 2011 mean expenditure estimate for apparel and services for CUs in the \$30,000 to \$39,999 income range is \$762.12 and the estimate for CUs in the \$40,000 to \$49,999 income range is \$817.25. The apparent difference between the two mean expenditures is \$55.13. The standard error on the estimate of \$762.12 is \$22.88 and the estimated standard error for \$817.25 is \$26.18.

The standard error of a difference is approximately equal to

$$S.E.({}_{WC}\bar{X}_1, {}_{WC}\bar{X}_2) = \sqrt{V({}_{WC}\bar{X}_1) + V({}_{WC}\bar{X}_2)} \quad (1)$$

where

$$V(\bar{X}_i) = (S.E.(\bar{X}_i))^2$$

This assumes the two sample means, ${}_{WC}\bar{X}_1$ and ${}_{WC}\bar{X}_2$, are disjoint subsets of the population. Hence the standard error of the difference in apparel and services expenditures between these two income groups of complete income reporters is about

$$\sqrt{(22.88)^2 + (26.18)^2} = 34.77 \quad (2)$$

This means that the 95 percent confidence interval around the difference is from -\$13.02 to \$123.28. Since this interval does include zero, we can conclude with 95 percent confidence that the mean apparel and services expenditures for CUs in the \$40,000 to \$49,999 income range is not different than the mean apparel and services expenditures for CUs in the \$30,000 to \$39,999 income range.

Analyses of the difference between two estimates can also be performed on non-disjoint sets of population, where one is a subset of the other. The formula for computing the standard error of the difference between two non-disjoint estimates is

$$S.E.(\bar{X}_1, \bar{X}_2) = \sqrt{V(\bar{X}_1) + V(\bar{X}_2) - 2r(\bar{X}_1) * V(\bar{X}_2)} \quad (3)$$

where

$$V(\bar{X}_i) = (S.E.(\bar{X}_i))^2$$

and where r is the correlation coefficient between \bar{X}_1 and \bar{X}_2 . The correlation coefficient is generally no greater than 0.2 for CE estimates.

VII. MICRODATA VERIFICATION AND ESTIMATION METHODOLOGY

This section is designed to help users become familiar with the microdata files. The following program illustrates the methodology CE uses in producing publication tables, and offers an example of coding to access the data and produce a sample table. The program is written in SAS and shows usage of the SAS data sets available online. (Note: CE data published by BLS may not match some values estimated using the microdata due to topcoding of data and CE publication programming methodology.) All variables and ranges referred to in the program are described in detail in the interview data dictionary.

This program produces a table of selected expenditures by income class of the CU. The first section of the program extracts the relevant variables from the FMLY files, while the second section extracts the expenditure and income data from the MTBI and ITBI files. These three data sets are then used along with the ISTUB processing file to construct the sample table output. This output is the product of two SAS arrays. The values in one array are divided by the value in the other array to obtain weighted mean expenditures. The base, or denominator, for the division is a vector consisting of the weighted total population for the U.S. and selected income class categories. The numerator is a matrix of aggregate weighted costs for each line item in the table for the total U.S. population and each income class category.

It should be emphasized that this program has been written solely for the verification of the microdata and as an illustration of the CE estimation methodology. It should not be used for any other purpose.

Note: This program processes large amounts of data. If you are using a PC with limited capabilities it may be necessary to run this program in sections.

A. SAMPLE PROGRAM

380	/****** /* PROGRAM NAME: CEX INTERVIEW SURVEY SAMPLE PROGRAM (SAS) */	*/
382	/* LOCATION: D:\PROGRAMS	*/
383	/* FUNCTION: CREATE AN INTERVIEW SURVEY EXPENDITURE TABLE BY INCOME CLASS	*/
384	/* USING MICRODATA FROM THE BUREAU OF LABOR STATISTIC'S CONSUMER	*/
385	/* EXPENDITURE SURVEY.	*/
386	/*	*/
387	/* WRITTEN BY: ERIC KEIL	*/
388	/* MODIFICATIONS:	*/
389	/* DATE- MODIFIED BY- REASON-	*/
390	/* -----	*/
391	/* 03/21/02 ERIC KEIL IMPROVE EFFICIENCY	*/
392	/* 10/22/03 ERIC KEIL UPDATE FOR 2002 DATA	*/
393	/* 11/20/03 ERIC KEIL INCLUDE ROUTINE TO AGGREGATE EASIER	*/

```

394 /* */
395 /* FOR SAS VERSION 8 OR HIGHER */
396 /* */
397 /* */
398 /* DATA AND INPUT FILES USED IN THIS SAMPLE PROGRAM WERE UNZIPPED */
399 /* OR COPIED TO THE LOCATIONS BELOW: */
400 /* */
401 /* INTRVW DATA -- C:\2011_CEX\INTRVW11 */
402 /* ISTUB2011.TXT -- C:\2011_CEX\Programs */
403 /* */
404 /****** */
405
406 /*Enter Data Year*/
407   %LET YEAR = 2011;
408 /*Enter location of the unzipped microdata file*/
409   %LET DRIVE = C:\2011_CEX;
410
411
412 /****** */
413 /* STEP1: READ IN THE STUB PARAMETER FILE AND CREATE FORMATS */
414 /* ----- */
415 /* 1 CONVERTS THE STUB PARAMETER FILE INTO A LABEL FILE FOR OUTPUT */
416 /* 2 CONVERTS THE STUB PARAMETER FILE INTO AN EXPENDITURE AGGREGATION FILE */
417 /* 3 CREATES FORMATS FOR USE IN OTHER PROCEDURES */
418 /****** */
419
420
421 %LET YR1 = %SUBSTR(&YEAR,3,2);
422 %LET YR2 = %SUBSTR(%EVAL(&YEAR+1),3,2);
423
424 LIBNAME I&YR1 "&DRIVE\INTRVW&YR1";
NOTE: Libref I11 was successfully assigned as follows:
      Engine:          V9
      Physical Name: C:\2011_CEX\INTRVW11
425
426
427 DATA STUBFILE (KEEP= COUNT TYPE LEVEL TITLE UCC SURVEY GROUP LINE);
428   INFILE "&DRIVE\PROGRAMS\ISTUB&YEAR..TXT"
429   PAD MISSEVER;
430   INPUT @1 TYPE $1. @ 4 LEVEL $1. @7 TITLE $CHAR60. @70 UCC $6.
431         @80 SURVEY $1. @86 GROUP $7.;
432   IF (TYPE = '1');
433   IF GROUP IN ('CUCHARS' 'FOOD' 'EXPEND' 'INCOME');
434   IF SURVEY = 'T' THEN DELETE;
435
436   RETAIN COUNT 9999;
437   COUNT + 1;
438   LINE = PUT(COUNT, $5.)||LEVEL ;
WARNING: Variable COUNT has already been defined as numeric.
439   /* READS IN THE STUB PARAMETER FILE AND CREATES LINE NUMBERS FOR UCCS */
440   /* A UNIQUE LINE NUMBER IS ASSIGNED TO EACH EXPENDITURE LINE ITEM */
441 RUN;

NOTE: The infile "C:\2011_CEX\PROGRAMS\ISTUB2011.TXT" is:
      Filename=C:\2011_CEX\PROGRAMS\ISTUB2011.TXT,
      RECFM=V,LRECL=256,File Size (bytes)=120588,
      Last Modified=31Aug2012:15:06:43,

```

Sets the calendar year and drive used as macro variables that can be used throughout the program.

Reads in the aggregation stub file and dynamically creates numbers associated with each expenditure line item.

Note: This aggregation file can be modified to accommodate any customized aggregation scheme.

One needs only to make sure that the column start positions in the file match the start positions in the input statement.

Create Time=13Sep2012:13:23:45

NOTE: 1260 records were read from the infile "C:\2011_CEX\PROGRAMS\ISTUB2011.TXT".
The minimum record length was 23.
The maximum record length was 148.
NOTE: The data set WORK.STUBFILE has 704 observations and 8 variables.
NOTE: DATA statement used (Total process time):
real time 0.06 seconds
cpu time 0.01 seconds

```
442
443
444 DATA AGGFMT1 (KEEP= UCC LINE LINE1-LINE10);
445   SET STUBFILE;
446   LENGTH LINE1-LINE10 $6.;
447   ARRAY LINES(9) LINE1-LINE9;
448   IF (UCC > 'A') THEN
449     LINES(SUBSTR(LINE,6,1)) = LINE;
450   RETAIN LINE1-LINE9;
451   IF (UCC < 'A') THEN
452     LINE10 = LINE;
453   IF (LINE10);
454   /* MAPS LINE NUMBERS TO UCCS */
455 RUN;
```

NOTE: Character values have been converted to numeric values at the places given by:
(Line):(Column).

449:15 453:7

NOTE: There were 704 observations read from the data set WORK.STUBFILE.
NOTE: The data set WORK.AGGFMT1 has 579 observations and 12 variables.
NOTE: DATA statement used (Total process time):
real time 0.01 seconds
cpu time 0.00 seconds

```
456
457
458 PROC SORT DATA= AGGFMT1 (RENAME=(LINE= COMPARE));
459   BY UCC;
460 RUN;
```

NOTE: There were 579 observations read from the data set WORK.AGGFMT1.
NOTE: The data set WORK.AGGFMT1 has 579 observations and 12 variables.
NOTE: PROCEDURE SORT used (Total process time):
real time 0.01 seconds
cpu time 0.01 seconds

```
461
462
463 PROC TRANSPOSE DATA= AGGFMT1 OUT= AGGFMT2 (RENAME=(COL1= LINE));
464   BY UCC COMPARE;
465   VAR LINE1-LINE10;
466 RUN;
```

NOTE: There were 579 observations read from the data set WORK.AGGFMT1.

Subsequent program steps
manipulate the aggregation stub file
into a dataset that associates UCCs
with line numbers.

NOTE: The data set WORK.AGGFMT2 has 5790 observations and 4 variables.

NOTE: PROCEDURE TRANSPOSE used (Total process time):

```
real time      0.03 seconds
cpu time       0.01 seconds
```

```
467
468
469 DATA AGGFMT (KEEP= UCC LINE);
470 SET AGGFMT2;
471 IF LINE;
472 IF SUBSTR(COMPARE,6,1) > SUBSTR(LINE,6,1) OR COMPARE=LINE;
473 /* AGGREGATION FILE. EXTRANEIOUS MAPPINGS ARE DELETED */
474 /* PROC SQL WILL AGGANGE LINE#/UCC PAIRS FOR USE IN PROC FORMAT */
475 RUN;
```

NOTE: Character values have been converted to numeric values at the places given by:
(Line):(Column).

471:8

NOTE: There were 5790 observations read from the data set WORK.AGGFMT2.

NOTE: The data set WORK.AGGFMT has 2704 observations and 2 variables.

NOTE: DATA statement used (Total process time):

```
real time      0.01 seconds
cpu time       0.00 seconds
```

```
476
477
478 PROC SQL NOPRINT;
479 SELECT UCC, LINE, COUNT(*)
480 INTO :UCCS SEPARATED BY " ",
481 :LINES SEPARATED BY " ",
482 :CNT
483 FROM AGGFMT;
```

NOTE: The query requires remerging summary statistics back with the original data.

```
484 QUIT;
```

NOTE: PROCEDURE SQL used (Total process time):

```
real time      0.00 seconds
cpu time       0.00 seconds
```

```
485 RUN;
486
487
488 %MACRO MAPPING;
489 %DO I = 1 %TO &CNT;
490 "%SCAN(&UCCS,&I,%STR( ))" = "%SCAN(&LINES,&I,%STR( ))"
491 %END;
492 %MEND MAPPING;
493
494
495 DATA LBLFMT (RENAME=(LINE= START TITLE= LABEL));
496 SET STUBFILE (KEEP= LINE TITLE);
497 RETAIN FMTNAME 'LBLFMT' TYPE 'C';
498 /* LABEL FILE. LINE NUMBERS ARE ASSIGNED A TEXT LABEL */
499 /* DATASET CONSTRUCTED TO BE READ INTO A PROC FORMAT */
500 RUN;
```

Creates a Dataset that can be used to associate titles with line numbers with a format procedure.

NOTE: There were 704 observations read from the data set WORK.STUBFILE.
NOTE: The data set WORK.LBLFMT has 704 observations and 4 variables.
NOTE: DATA statement used (Total process time):
 real time 0.03 seconds
 cpu time 0.01 seconds

501
502
503 PROC FORMAT;
504
505 VALUE \$AGGFMT (MULTILABEL)
506 %MAPPING
507 OTHER= 'OTHER';
NOTE: Format \$AGGFMT is already on the library.
NOTE: Format \$AGGFMT has been output.
508 /* CREATE AGGREGATION FORMAT */

509
510
511 VALUE \$INC (MULTILABEL)
512 '01' = '01'
513 '01' = '10'
514 '02' = '02'
515 '02' = '10'
516 '03' = '03'
517 '03' = '10'
518 '04' = '04'
519 '04' = '10'
520 '05' = '05'
521 '05' = '10'
522 '06' = '06'
523 '06' = '10'
524 '07' = '07'
525 '07' = '10'
526 '08' = '08'
527 '08' = '10'
528 '09' = '09'
529 '09' = '10';

NOTE: Format \$INC is already on the library.
NOTE: Format \$INC has been output.
530 /* CREATE INCOME CLASS FORMAT */
531 RUN;

NOTE: PROCEDURE FORMAT used (Total process time):
 real time 8.40 seconds
 cpu time 7.64 seconds

532
533
534 PROC FORMAT LIBRARY= WORK CNTLIN= LBLFMT;
NOTE: Format \$LBLFMT is already on the library.
NOTE: Format \$LBLFMT has been output.
535 /* CREATE LABEL FILE FORMATS */
536 RUN;

Formats:
Puts the aggregation scheme into a SAS format.

Puts the income groupings into a SAS format.

Note: The multilabel option is necessary in the aggregation format and income format since multiple mappings occur. This option is available in SAS V8 or higher.

Puts the titles into a SAS format for use in the final output.

NOTE: PROCEDURE FORMAT used (Total process time):

real time 0.01 seconds
cpu time 0.00 seconds

NOTE: There were 704 observations read from the data set WORK.LBLFMT.

```
537  
538  
539 /*****  
540 /* STEP2: READ IN ALL NEEDED DATA */  
541 /* ----- */  
542 /* 1 READ IN THE INTERVIEW FMLY FILES & CREATE THE MO_SCOPE VARIABLE */  
543 /* 2 READ IN THE INTERVIEW MTAB AND ITBI FILES */  
544 /* 3 MERGE FMLY AND EXPENDITURE FILES TO DERIVE WEIGHTED EXPENDITURES */  
545 /*****  
546  
547  
548 DATA FMLY (KEEP = NEWID INCLASS WTREP01-WTREP44 FINLWT21 REPWT1-REPWT45);  
549  
550 SET I&YR1..FMLI&YR1.1X (IN = FIRSTQTR)  
551     I&YR1..FMLI&YR1.2  
552     I&YR1..FMLI&YR1.3  
553     I&YR1..FMLI&YR1.4  
554     I&YR1..FMLI&YR2.1 (IN = LASTQTR);  
555     BY NEWID;  
556     /* READ IN FMLY FILE DATA */  
557  
558     IF FIRSTQTR THEN  
559         MO_SCOPE = (QINTRVMO - 1);  
560     ELSE IF LASTQTR THEN  
561         MO_SCOPE = (4 - QINTRVMO);  
562     ELSE  
563         MO_SCOPE = 3;  
564     /* CREATE MONTH IN SCOPE VARIABLE (MO_SCOPE) */  
565  
566     ARRAY REPS_A(45) WTREP01-WTREP44 FINLWT21;  
567     ARRAY REPS_B(45) REPWT1-REPWT45;  
568  
569     DO i = 1 TO 45;  
570         IF REPS_A(i) > 0 THEN  
571             REPS_B(i) = (REPS_A(i) * MO_SCOPE / 12);  
572             ELSE REPS_B(i) = 0;  
573         END;  
574     /* ADJUST WEIGHTS BY MO_SCOPE TO ACCOUNT FOR SAMPLE ROTATION */  
575 RUN;
```

Reads in the necessary variables from the fmly files. Newid is the code given to a consumer unit each time it participates. Finlwt21 and Wtrep01-Wtrep44 are weight variables used to weight each consumer unit such that it represents some portion of the population. Inclass is a code that represents the range within which the consumer unit's annual income falls.

Lines 558-563 create the variable mo_scope. Mo_scope is used to calculate calendar year, as opposed to collection year, estimates. It is used in conjunction with weights to determine populations. NOTE: More information on mo_scope can be found in the ESTIMATION PROCEDURES section of this documentation.

Lines 566-573 create weights that are mo_scope adjusted to account for sample rotation.

NOTE: Character values have been converted to numeric values at the places given by: (Line):(Column).

559:19 561:23

WARNING: Multiple lengths were specified for the variable RACE2 by input data set(s). This may cause truncation of data.

NOTE: There were 6869 observations read from the data set I11.FMLI111X.
NOTE: There were 6729 observations read from the data set I11.FMLI112.
NOTE: There were 6611 observations read from the data set I11.FMLI113.
NOTE: There were 6781 observations read from the data set I11.FMLI114.
NOTE: There were 6838 observations read from the data set I11.FMLI121.
NOTE: The data set WORK.FMLY has 33828 observations and 92 variables.

NOTE: DATA statement used (Total process time):

real time 1.20 seconds
cpu time 1.17 seconds

```
576
577
578
579 DATA EXPEND (KEEP=NEWID UCC COST);
580
581 SET I&YR1..MTBI&YR1.1X
582     I&YR1..MTBI&YR1.2
583     I&YR1..MTBI&YR1.3
584     I&YR1..MTBI&YR1.4
585     I&YR1..MTBI&YR2.1
586
587     I&YR1..ITBI&YR1.1X (RENAME=(VALUE=COST))
588     I&YR1..ITBI&YR1.2 (RENAME=(VALUE=COST))
589     I&YR1..ITBI&YR1.3 (RENAME=(VALUE=COST))
590     I&YR1..ITBI&YR1.4 (RENAME=(VALUE=COST))
591     I&YR1..ITBI&YR2.1 (RENAME=(VALUE=COST));
592
593
594 IF REFYR = "&YEAR" OR REF_YR = "&YEAR";
595 IF UCC = '710110' THEN
596     COST = (COST * 4);
597 /* READ IN MTAB AND ITBI EXPENDITURE AND INCOME DATA */
598 /* ADJUST UCC 710110 TO ANNUALIZE */
599 RUN;
```

NOTE: There were 552798 observations read from the data set I11.MTBI111X.
NOTE: There were 536048 observations read from the data set I11.MTBI112.
NOTE: There were 539712 observations read from the data set I11.MTBI113.
NOTE: There were 545595 observations read from the data set I11.MTBI114.
NOTE: There were 572476 observations read from the data set I11.MTBI121.
NOTE: There were 378648 observations read from the data set I11.ITBI111X.
NOTE: There were 372771 observations read from the data set I11.ITBI112.
NOTE: There were 367488 observations read from the data set I11.ITBI113.
NOTE: There were 373578 observations read from the data set I11.ITBI114.
NOTE: There were 377130 observations read from the data set I11.ITBI121.
NOTE: The data set WORK.EXPEND has 3680611 observations and 3 variables.
NOTE: DATA statement used (Total process time):
real time 4.07 seconds
cpu time 3.43 seconds

```
600
601
602 PROC SORT DATA=EXPEND;
603     BY NEWID;
604 RUN;
```

NOTE: There were 3680611 observations read from the data set WORK.EXPEND.
NOTE: The data set WORK.EXPEND has 3680611 observations and 3 variables.
NOTE: PROCEDURE SORT used (Total process time):
real time 8.42 seconds
cpu time 2.71 seconds

Reads in all MTBI expenditure data and ITBI income data.

Newid is the consumer unit code. UCC is a code that represents the type of expenditure variable. Cost is the value that corresponds to the UCC code.

Refyr and Ref_yr are the reference year of the expenditure. These are set such that any expenditure outside of the desired reference year is excluded.

UCC 710110 must be adjusted because only one-fourth of all consumer units interviewed in a quarter are asked this question (those in the 5th interview).

```

605
606 DATA PUBFILE (KEEP = NEWID INCLASS UCC RCOST1-RCOST45);
607   MERGE FMLY   (IN = INFAM)
608     EXPEND (IN = INEXP);
609   BY NEWID;
610   IF INEXP AND INFAM;
611
612   IF COST = . THEN
613     COST = 0;
614
615     ARRAY REPS_A(45) WTREP01-WTREP44 FINLWT21;
616     ARRAY REPS_B(45) RCOST1-RCOST45;
617
618     DO i = 1 TO 45;
619       IF REPS_A(i) > 0
620         THEN REPS_B(i) = (REPS_A(i) * COST);
621       ELSE REPS_B(i) = 0;
622     END;
623     /* MERGE FMLY FILE WEIGHTS AND CHARACTERISTICS WITH MTAB/ITBI COSTS */
624     /* MULTIPLY COSTS BY WEIGHTS TO DERIVE WEIGHTED COSTS          */
625 RUN;

```

Merges the FMLY and EXPEND data sets together and changes missing cost values to zero.

Weights the cost values by the 44 replicate weights and full sample weight. RCOST1-RCOST45 represents the weighted costs for each expenditure.

NOTE: There were 33828 observations read from the data set WORK.FMLY.
NOTE: There were 3680611 observations read from the data set WORK.EXPEND.
NOTE: The data set WORK.PUBFILE has 3680610 observations and 48 variables.
NOTE: DATA statement used (Total process time):
real time 1:00.00
cpu time 9.64 seconds

```

626
627
628 /****** /
629 /* STEP3: CALCULATE POPULATIONS */
630 /* ----- */
631 /* 1 SUM ALL 45 WEIGHT VARIABLES TO DERIVE REPLICATE POPULATIONS */
632 /* 2 FORMAT FOR CORRECT COLUMN CLASSIFICATIONS */
633 /****** /
634
635
636 PROC SUMMARY NWAY DATA=FMLY;
637   CLASS INCLASS / MLF;
638   VAR REPWT1-REPWT45;
639   FORMAT INCLASS $INC.;
640   OUTPUT OUT = POP (DROP = _TYPE_ _FREQ_) SUM = RPOP1-RPOP45;
641   /* SUMS WEIGHTS TO CREATE POPULATIONS PER REPLICATE */
642   /* FORMATS TO CORRECT COLUMN CLASSIFICATIONS */
643 RUN;

```

The weights in the FMLY file are summed to create replicate populations and the full US population for each income class.

Replicate populations (Repwt1-Repwt44) and the US population (Repwt45) are used as the denominator in means estimation.

NOTE: There were 33828 observations read from the data set WORK.FMLY.
NOTE: The data set WORK.POP has 10 observations and 46 variables.
NOTE: PROCEDURE SUMMARY used (Total process time):
real time 1.06 seconds
cpu time 0.15 seconds

```

644
645
646
647 /*****/
648 /* STEP4: CALCULATE WEIGHTED AGGREGATE EXPENDITURES */
649 /* ----- */
650 /* 1 SUM THE 45 REPLICATE WEIGHTED EXPENDITURES TO DERIVE AGGREGATES */
651 /* 2 FORMAT FOR CORRECT COLUMN CLASSIFICATIONS AND AGGREGATION SCHEME */
652 /*****/
653
654
655 PROC SUMMARY NWAY DATA=PUBFILE SUMSIZE=MAX COMPLETETYPES;
656 CLASS UCC INCLASS / MLF;
657 VAR RCOST1-RCOST45;
658 FORMAT UCC $AGGFMT. INCLASS $INC.;
659 OUTPUT OUT=AGG (DROP= _TYPE_ _FREQ_ RENAME=(UCC=LINE))
660 SUM = RCOST1-RCOST45;
661 /* SUMS WEIGHTED COSTS PER REPLICATE TO GET AGGREGATES */
662 /* FORMATS INCOME TO CREATE COMPLETE REPORTING COLUMN */
663 /* FORMATS EXPENDITURES TO CORRECT AGGREGATION SCHEME */
664 RUN;

```

```

NOTE: There were 3680610 observations read from the data set WORK.PUBFILE.
NOTE: The data set WORK.AGG has 6870 observations and 47 variables.
NOTE: PROCEDURE SUMMARY used (Total process time):
      real time          28.24 seconds
      cpu time           33.18 seconds

```

```

665
666
667
668 /*****/
669 /* STEP5: CALCULTE MEAN EXPENDITURES */
670 /* ----- */
671 /* 1 READ IN POPULATIONS AND LOAD INTO MEMORY USING A 2 DIMENSIONAL ARRAY */
672 /* POPULATIONS ARE ASSOCIATED BY INCLASS(i), AND REPLICATE(j) */
673 /* 2 READ IN AGGREGATE EXPENDITURES FROM AGG DATASET */
674 /* CALCULATE MEANS BY DIVIDING AGGREGATES BY CORRECT SOURCE POPULATIONS */
675 /* 4 CALCULATE STANDARD ERRORS USING REPLICATE FORMULA */
676 /*****/
677
678
679 DATA TAB1 (KEEP = LINE MEAN SE);
680
681 /* READS IN POP DATASET. _TEMPORARY_ LOADS POPULATIONS INTO SYSTEM MEMORY */
682 ARRAY POP{01:10,45} _TEMPORARY_;
683 IF _N_ = 1 THEN DO i = 1 TO 10;
684 SET POP;
685 ARRAY REPS(45) RPOP1-RPOP45;
686 DO j = 1 TO 45;
687 POP{INCLASS,j} = REPS(j);
688 END;
689 END;
690
691 /* READS IN AGG DATASET AND CALCULATES MEANS BY DIVIDING BY POPULATIONS */

```

Weighted costs are summed and formatted into income classes and by the aggregation scheme of the stub file. These aggregate expenditures will become the numerator in means estimation.

This data step calculates means and standard errors:

Lines 682-689 reads in the column populations and stores them into temporary memory. Populations in memory are associated with INCLASS(i), and REPLICATE(j).

```

692 SET AGG (KEEP = LINE INCLASS RCOST1-RCOST45);
693   ARRAY AGGS(45) RCOST1-RCOST45;
694   ARRAY AVGS(45) MEAN1-MEAN44 MEAN;
695     DO k = 1 TO 45;
696       IF AGGS(k) = . THEN AGGS(k) = 0;
697       AVGS(k) = AGGS(k) / POP{INCLASS,k};
698     END;
699
700 /* CALCULATES STANDARD ERRORS USING REPLICATE FORMULA */
701 ARRAY RMNS(44) MEAN1-MEAN44;
702 ARRAY DIFF(44) DIFF1-DIFF44;
703   DO n = 1 TO 44;
704     DIFF(n) = (RMNS(n) - MEAN)**2;
705   END;
706 SE = SQRT((1/44)*SUM(OF DIFF(*)));
707 RUN;

```

Line 692 reads in the aggregated expenditures.

Lines 693-698 calculates means by dividing the aggregate expenditures by the appropriate populations in memory as determined by INCLASS and REPLICATE.

Lines 701-707 calculates standard errors using the replicate weight formula.

NOTE: Character values have been converted to numeric values at the places given by:
(Line):(Column).

687:13 697:33

NOTE: There were 10 observations read from the data set WORK.POP.
NOTE: There were 6870 observations read from the data set WORK.AGG.
NOTE: The data set WORK.TAB1 has 6870 observations and 3 variables.
NOTE: DATA statement used (Total process time):
real time 0.10 seconds
cpu time 0.09 seconds

```

708
709
710
711 /****** /
712 /* STEP6: TABULATE EXPENDITURES */
713 /* ----- */
714 /* 1 ARRANGE DATA INTO TABULAR FORM */
715 /* 2 SET OUT INTERVIEW POPULATIONS FOR POPULATION LINE ITEM */
716 /* 3 INSERT POPULATION LINE INTO TABLE */
717 /* 4 INSERT ZERO EXPENDITURE LINE ITEMS INTO TABLE FOR COMPLETENESS */
718 /****** /
719
720
721 PROC TRANSPOSE DATA=TAB1 OUT=TAB2
722   NAME = ESTIMATE PREFIX = INCLASS;
723   BY LINE;
724   VAR MEAN SE;
725 /*ARRANGE DATA INTO TABULAR FORM */
726 RUN;

```

Arranges output for tabulation. This will give a rough expenditure table.

NOTE: There were 6870 observations read from the data set WORK.TAB1.
NOTE: The data set WORK.TAB2 has 1374 observations and 12 variables.
NOTE: PROCEDURE TRANSPOSE used (Total process time):
real time 0.12 seconds
cpu time 0.06 seconds

727
728


```

729 PROC TRANSPOSE DATA=POP (KEEP = RPOP45) OUT=CUS
730   NAME = LINE PREFIX = INCLASS;
731   VAR RPOP45;
732   /* SET ASIDE POPULATIONS FROM INTERVIEW */
733 RUN;

```

NOTE: There were 10 observations read from the data set WORK.POP.
NOTE: The data set WORK.CUS has 1 observations and 11 variables.
NOTE: PROCEDURE TRANSPOSE used (Total process time):

real time	0.07 seconds
cpu time	0.03 seconds

```

734
735
736 DATA TAB3;
737   SET CUS TAB2;
738   IF LINE = 'RPOP45' THEN DO;
739     LINE = '100001';
740     ESTIMATE = 'N';
741   END;
742   /* INSERT POPULATION LINE ITEM INTO TABLE AND ASSIGN LINE NUMBER */
743 RUN;

```

NOTE: There were 1 observations read from the data set WORK.CUS.
NOTE: There were 1374 observations read from the data set WORK.TAB2.
NOTE: The data set WORK.TAB3 has 1375 observations and 12 variables.
NOTE: DATA statement used (Total process time):

real time	0.06 seconds
cpu time	0.00 seconds

```

744
745
746 DATA TAB;
747   MERGE TAB3 STUBFILE;
748   BY LINE;
749   IF LINE NE '100001' THEN DO;
750     IF SURVEY = 'S' THEN DELETE;
751   END;
752   ARRAY CNTRL(10) INCLASS1-INCLASS10;
753   DO i = 1 TO 10;
754     IF CNTRL(i) = . THEN CNTRL(i) = 0;
755     IF SUM(OF CNTRL(*)) = 0 THEN ESTIMATE = 'MEAN';
756   END;
757
758   IF GROUP IN ('CUCHARS' 'INCOME') THEN DO;
759     IF LAG(LINE) = LINE THEN DELETE;
760   END;
761   /* MERGE STUBFILE BACK INTO TABLE TO INSERT EXPENDITURE LINES */
762   /* THAT HAD ZERO EXPENDITURES FOR THE YEAR */
763 RUN;

```

NOTE: There were 1375 observations read from the data set WORK.TAB3.
NOTE: There were 704 observations read from the data set WORK.STUBFILE.
NOTE: The data set WORK.TAB has 1312 observations and 20 variables.
NOTE: DATA statement used (Total process time):

All populations are put into dataset POP. A special dataset, CUS, is created specifically for inserting the full US population into the output.

Population totals per income class are inserted into the output.

This data step further processes data by deleting unwanted table line items and inserting zero expenditure lines for items that are not reported. This is to get the output as close to publication tables as possible.

<pre> real time 0.04 seconds cpu time 0.00 seconds 764 765 766 PROC TABULATE DATA=TAB; 767 CLASS LINE / GROUPINTERNAL ORDER=DATA; 768 CLASS ESTIMATE; 769 VAR INCLASS1-INCLASS10; 770 FORMAT LINE \$LBLFMT.; 771 772 TABLE (LINE * ESTIMATE), (INCLASS10 INCLASS1 INCLASS2 INCLASS3 INCLASS4 773 INCLASS5 INCLASS6 INCLASS7 INCLASS8 INCLASS9) 774 *SUM=' ' / RTS=25; 775 LABEL ESTIMATE=ESTIMATE LINE=LINE 776 INCLASS1='LESS THAN \$5,000' INCLASS2='\$5,000 TO \$9,999' 777 INCLASS3='\$10,000 TO \$14,999' INCLASS4='\$15,000 TO \$19,999' 778 INCLASS5='\$20,000 TO \$29,999' INCLASS6='\$30,000 TO \$39,999' 779 INCLASS7='\$40,000 TO \$49,999' INCLASS8='\$50,000 TO \$69,999' 780 INCLASS9='\$70,000 AND OVER' INCLASS10='ALL CONSUMER UNITS'; 781 OPTIONS NODATE NOCENTER NONUMBER LS=167 PS=MAX; 782 WHERE LINE NE 'OTHER'; 783 TITLE "INTERVIEW EXPENDITURES FOR &YEAR BY INCOME BEFORE TAXES"; 784 RUN; NOTE: There were 1310 observations read from the data set WORK.TAB. WHERE LINE not = 'OTHER'; NOTE: PROCEDURE TABULATE used (Total process time): real time 0.18 seconds cpu time 0.07 seconds </pre>	<p>Tabulate the data. Line numbers are formatted to give titles.</p>
--	--

B. OUTPUT

Sample program output can be found online on the [PUMD homepage](#).

VIII.DESCRPTION OF THE SURVEY

The CE program consists of two separate components, each with its own questionnaire and independent sample:

1) An Interview panel survey in which each CU in the sample is interviewed once every 3 months over five consecutive quarters to obtain a year's worth of data. New panels are initiated every month of the year.

2) A Diary or recordkeeping survey completed by the sample CUs for two consecutive 1-week periods; the sample is surveyed across a 12-month period.

Data are collected by the Bureau of the Census under contract with BLS. All data collected in both surveys are subject to Bureau of the Census confidentiality requirements, which prevent the disclosure of any CU member's identity.

The quarterly Interview survey is designed to collect data on major items of expense which respondents can be expected to recall for 3 months or longer. In practice, the Interview survey collects detailed data on an estimated 60 to 70 percent of total household expenditures. In addition, global estimates are

obtained for food and other selected items. These global estimates account for an additional 20 to 25 percent of total expenditures. The Interview survey does not collect expenses for housekeeping supplies, personal care products, and nonprescription drugs, which contribute about 5 to 15 percent of total expenditures. Thus, up to 95 percent of total expenditures are covered in the Interview survey. Household characteristics, income, and financial data are also collected. At BLS, each quarter of data is processed independently from other quarters. Thus the annual estimates published by BLS are not dependent on the participation of a CU for the full five interviews.

The initial interview collects demographic and family characteristics data. These pertain to age, sex, race, marital status, education, and CU relationship for each CU member. This information is updated at each subsequent interview. Expenditures are for the month prior to the interview. They are used along with the inventory information solely for bounding purposes, that is, to prevent the reporting of expenditures from an indefinite past period. Expenditure data from the first interview are not on these files since they are not included in expenditure estimation.

The second through fifth interviews use uniform questionnaires to collect expenditure information from the previous three months. Income information, such as wage, salary, unemployment compensation, child support, and alimony, as well as information on the employment of each CU member age 14 and over, are collected in the second and fifth interviews only.

Income data and employment information collected in the second interview are carried over to the third and fourth interviews. For new CU members and CU members who started work since the previous interview, wage, salary, and other information on employment are collected in the third and fourth interviews. In the fifth interview, a supplement is used to collect information on asset values and changes in balances of assets and liabilities. These data, along with other household characteristics information, permit users to classify sample units for research purposes and allow BLS to adjust population weights for CUs who do not cooperate in the survey.

Each quarter, 20 percent of the sample are new households introduced for the first time. They replace one-fifth of the sample that completed its final interview in the previous quarter. This rotating procedure with overlap is designed to provide more efficient data collection. CUs that move away from their sample address between interviews are dropped from the survey. New CUs that move into the sample address are screened for eligibility and included in the survey. Students living in college- or university-regulated housing report their own expenditures directly, while at school, rather than being considered part of their parents' household.

IX. DATA COLLECTION AND PROCESSING

In addition to its data collection duties, the Bureau of the Census is responsible for field editing and coding, consistency checking, quality control, and data transmittal to BLS. BLS performs additional review and editing procedures in preparing the data for publication and release.

A. THE US CENSUS BUREAU ACTIVITIES

Data collection activities have been conducted by the U.S. Census Bureau on a continuing basis since October 1979. Due to differences in format and design, the Interview survey and the Diary survey data are collected and processed separately.

All interviews are sent electronically to the U.S. Census Bureau headquarters in Suitland, MD, where they pass through basic quality checks of control counts, missing values, etc. Also, missing sections of

questionnaires, and certain inconsistencies and errors are identified and corrected. The data are then electronically transmitted to BLS in Washington, DC.

An input file is created by the U.S. Census Bureau when the data are electronically sent to BLS. The input file is used in the next quarter's interview to prevent the recording of duplicate reports by respondents. The input file also contains data collected in the first interview about owned property, vehicles, and insurance policies. Because the input file contains this data, only updates and new records are collected about owned property, vehicles, and insurance policies in the second through fifth interviews.

B. BUREAU OF LABOR STATISTICS ACTIVITIES

Upon receipt from the Bureau of the Census, the data undergo a series of computer edits that identify and correct irregularities and inconsistencies. Other adjustments eliminate business and reimbursed expenses, apply appropriate sales taxes, and derive CU weights based on BLS specifications. In addition, demographic and work experience items (except income) are imputed when missing or invalid. All data changes and imputations are identified with flags on the Interview data base.

Next, BLS conducts an extensive review to ensure that severe data aberrations are corrected. The review takes place in several stages: a review of counts, weighted means, and unweighted means by region; a review of family relationship coding inconsistencies; a review of selected extreme values for expenditure and income categories; and a verification of the various data transformations.

Cases of extreme data values are investigated. Any errors discovered are corrected prior to release of the data.

Two major types of data adjustment routines--imputation and allocation--are carried out to classify expenditures and improve estimates. Data imputation routines correct for missing or invalid entries. All fields except assets are subject to imputation. Allocation routines are applied when respondents provide insufficient expenditure detail to meet tabulation requirements. For example, reports of combined expenditures for fuels and utilities are allocated among gas, electricity, and other items in this group. While not strictly an allocation routine, another adjustment separates mortgage and vehicle loan payments into principal and interest components using associated data on the interest rate and term of the loan. Another adjustment is done to prepare the data for the production of calendar year estimates. Time adjustment routines are used to classify expenditures by month. Aggregation can then be done at a monthly level, permitting the production of monthly, quarterly, annual, and other interval estimates. To analyze the effects of these adjustments, tabulations are made before and after the data adjustments. At this point, processing activities are completed and the database is ready for use.

X. SAMPLING STATEMENT

A. SURVEY SAMPLE DESIGN

Samples for the CE are national probability samples of households designed to be representative of the total U.S. civilian population. Eligible population includes all civilian non-institutional persons.

The first step in sampling is the selection of primary sampling units (PSUs), which consist of counties (or parts thereof) or groups of counties. The set of sample PSUs used for the 2011 and 2012 samples is composed of 91 areas. The design classifies the PSUs into four categories:

- 21 "A" certainty PSUs are Metropolitan Statistical Areas (MSA's) with a population greater than 1.5 million.
- 38 "X" PSUs, are medium-sized MSA's.
- 16 "Y" PSUs are nonmetropolitan areas that are included in the CPI.
- 16 "Z" PSUs are nonmetropolitan areas where only the urban population data will be included in the CPI.

The sampling frame (that is, the list from which housing units were chosen) for the 2011 survey is generated from the 2000 Census of Population 100-percent-detail file. The sampling frame is augmented by new construction permits and by techniques used to eliminate recognized deficiencies in census coverage. All Enumeration Districts (EDs) from the Census that fail to meet the criterion for good addresses for new construction, and all EDs in nonpermit-issuing areas are grouped into the area segment frame. Interviewers are then assigned to list these areas before a sample is drawn.

To the extent possible, an unclustered sample of units is selected within each PSU. This lack of clustering is desirable because the sample size of the Diary Survey is small relative to other surveys, while the intraclass correlations for expenditure characteristics are relatively large. This suggests that any clustering of the sample units could result in an unacceptable increase in the within-PSU variance and, as a result, the total variance.

The Interview Survey is a panel rotation survey. Each panel is interviewed for five consecutive quarters and then dropped from the survey. As one panel leaves the survey, a new panel is introduced. Approximately 20 percent of the addresses are new to the survey each month.

B. COOPERATION LEVELS

The quarterly target sample size at the United States level for the Interview Survey is 7,060 participating sample units. To achieve this target the total estimated work load is 11,500 sample units per quarter. This allows for refusals, vacancies, or nonexistent sample unit addresses. Information on interview annual participation levels for the past five years follows.

Year	Consumer units designated for the survey	Type B or C <u>Ineligible cases</u>	<i>Eligible housing unit interviews</i>			Response Rate for Eligible Interviews
			Number of potential interviews	Type A <u>nonresponse</u>	Total respondent interviews	
2007	45,996	8,980	37,016	9,681	27,335	73.8%
2008	46,546	9,244	37,302	9,757	27,545	73.8%
2009	46,846	9,223	37,623	9,594	28,029	74.5%
2010	48,036	9,318	38,718	10,289	28,429	73.4%
2011	47,561	9,213	38,348	11,358	26,990	70.4%

Type B or C cases are housing units that are vacant, nonexistent, or ineligible for interview. Type A nonresponses are housing units that the interviewers were unable to contact or the respondents refused to participate in the survey. The response rate stated above is based only on the eligible housing units (i.e., the designated sample cases less Type B and Type C ineligible cases).

C. WEIGHTING

Each CU included in the CE represents a given number of CUs in the U.S. population, which is considered to be the universe. The translation of sample families into the universe of families is known as weighting. However, since the unit of analysis for the CE is a CU, the weighting is performed at the CU

level. Several factors are involved in determining the weight for each CU for which an interview is obtained. There are four steps in the weighting procedure:

- 1) The basic weight is assigned to an address and is the inverse of the probability of selection of the housing unit.
- 2) A weight control factor is applied to each interview if sub-sampling is performed in the field.
- 3) A non-interview adjustment is made for units where data could not be collected from occupied housing units. The adjustment is performed as a function of region, housing tenure, family size and race.
- 4) A final adjustment is performed to adjust the sample estimates to national population controls derived from the Current Population Survey. The adjustments are made based on both the CU's member composition and the CU as a whole. The weight for the CU is adjusted for individuals within the CU to meet the controls for 14 age/race categories, 4 regions, and 4 region/urban categories. The CU weight is also adjusted to meet the control for total number of CUs and total number of CUs who own their living quarters. The weighting procedure uses an iterative process to ensure that the sample estimates meet all the population controls.

NOTE: The weight for a consumer unit (CU) can be different for each quarter in which the CU participates in the survey, as the CU may represent a different number of CUs with similar characteristics.

D. STATE IDENTIFIER

Since the CE is not designed to produce state-level estimates, summing the CU weights by state will not yield state population totals. A CU's basic weight reflects its probability of selection among a group of primary sampling units of similar characteristics. For example, sample units in an urban nonmetropolitan area in California may represent similar areas in Wyoming and Nevada. Among other adjustments, CUs are post-stratified nationally by sex-age-race. For example, the weights of CUs containing a black male, age 16-24 in Alabama, Colorado, or New York, are all adjusted equivalently. Therefore, weighted population state totals will not match population totals calculated from other surveys that are designed to represent state data.

To summarize, the CE sample was not designed to produce precise estimates for individual states. Although state-level estimates that are unbiased in a repeated sampling sense can be calculated for various statistical measures, such as means and aggregates, their estimates will generally be subject to large variances. Additionally, a particular state population estimate from the CE sample may be far from the true state population.

XI. INTERPRETING THE DATA

Several factors should be considered when interpreting the expenditure data. The average expenditure for an item may be considerably lower than the expenditure by those CUs that purchased the item. The less frequently an item is purchased, the greater the difference between the average for all CUs and the average of those purchasing. (See [Section V.A.2.b.ii. MEANS OF THOSE REPORTING.](#)) Also, an individual CU may spend more or less than the average, depending on its particular characteristics. Factors such as income, age of family members, geographic location, taste and personal preference influence expenditures. Furthermore, even within groups with similar characteristics, the distribution of expenditures varies substantially.

Expenditures reported are the direct out-of-pocket expenditures. Indirect expenditures, which may be significant, may be reflected elsewhere. For example, rental contracts often include utilities. Renters with such contracts would record no direct expense for utilities, and therefore, appear to have lower utility expenses. Employers or insurance companies frequently pay other costs. CU with members whose

employers pay for all or part of their health insurance or life insurance would have lower direct expenses for these items than those who pay the entire amount themselves. These points should be considered when relating reported averages to individual circumstances.

XII. APPENDIX 1—GLOSSARY

Population

The civilian non-institutional population of the United States as well as that portion of the institutional population living in the following group quarters: Boarding houses, housing facilities for students and workers, staff units in hospitals and homes for the aged, infirm, or needy, permanent living quarters in hotels and motels, and mobile home parks. Urban population is defined as all persons living in a Metropolitan Statistical Area (MSA's) and in urbanized areas and urban places of 2,500 or more persons outside of MSA's. Urban, defined in this survey, includes the rural populations within MSA. The general concept of an MSA is one of a large population nucleus together with adjacent communities that have a high degree of economic and social integration with that nucleus. Rural population is defined as all persons living outside of an MSA and within an area with less than 2,500 persons.

Consumer unit (CU)

A consumer unit comprises either: (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who use their income to make joint expenditures. Financial independence is determined by the three major expense categories: housing, food, and other living expenses. To be considered financially independent, at least two of the three major expense categories have to be provided entirely or in part by the respondent.

Reference person

The first member mentioned by the respondent when asked to "Start with the name of the person or one of the persons who owns or rents the home." It is with respect to this person that the relationship of other CU members is determined.

Income before taxes

The combined income earned by all CU members 14 years old or over during the 12 months preceding the interview. The components of income are: Wage and salary income, business income, farm income, Social Security income and Supplemental Security income, unemployment compensation, workmen's compensation, public assistance, welfare, interest, dividends, pension income, income from roomers or boarders, other rental income, income from regular contributions, other income, and food stamps.

Income after taxes

Income before taxes minus personal taxes, which includes Federal income taxes, state and local taxes, and other taxes.

Geographic regions

CUs are classified by region according to the address at which they reside during the time of participation in the survey. The regions comprise the following States:

Northeast - Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont

Midwest - Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin

South - Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia

West - Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming

XIII.APPENDIX 2 -- UNIVERSAL CLASSIFICATION CODE (UCC) TITLES

*L denotes UCCs that could have negative values. Medical care UCCs have negative values if they are reimbursements. Reduction in loan principal UCCs are all negative for programming convenience. However, they are considered positive expenditures in CE publications.

Underlined UCCs represent either a new UCC or a deleted UCC. Please note that new UCCs may not be represented in all quarters. The quarter in which the addition (deletion) occurs is denoted by a leading superscript directly prior to the UCC code. For example, ^{N(D)Y111}(UCC) identifies a new (deleted) UCC beginning in Q111.

A. EXPENDITURE UCCS ON MTBI FILE

- 002120 Other non-health insurance
- 006001 Total amount owed to creditors, 2nd interview
- 006002 Total amount owed to creditors, 5th interview
- *L 006003 Total amount owed to creditors, 2nd interview, asked first quarter, current year (2011)
- *L 006004 Total amount owed to creditors, 5th interview, asked first quarter, current year (2011)
- 006005 Total amount owed to creditors, 2nd interview, asked first quarter, current year + 1 (2012)
- 006006 Total amount owed to creditors, 5th interview, asked first quarter, current year +1 (2012)
- 190901 Food or board at school
- 190902 Food and beverages for catered affairs (now only includes food and beverages)
- 190903 Food and non-alcoholic beverages at restaurants, cafes, fast food places on trips
- 190904 Food and beverages purchased and prepared by CU on trips
- 200900 Alcoholic beverages at restaurants, cafes, bars on trips
- 210110 Rent of dwelling
- 210210 Lodging away from home on trips
- 210310 Housing for someone at school
- 210901 Ground rent - owned home
- 210902 Ground rent - owned vacation home
- 220121 Homeowners insurance - owned home including fire and extended coverage; management fees for property insurance in coops (non-vacation)
- 220122 Same as 220121 - owned vacation home, vacation coops
- 220311 Mortgage interest - owned home; portion of management fees for repayment of loans in coops (non-vacation)
- 220211 Property taxes - owned home; management fees for property taxes in coops (non-vacation)
- 220212 Same as 220211 - owned vacation home, vacation coops
- 220312 Same as 220311 - owned vacation home; vacation coops
- 220313 Interest on home equity loan - owned home
- 220314 Interest on home equity loan - owned vacation home
- 220512 Cost of supplies purchased for jobs considered addition, alteration, or new construction incl. dwellings and additions being built, finishing basement or attic, remodeling rooms, landscaping, building outdoor patios, driveways, or permanent swimming pools, and insulation - owned home
- 220513 Same as 220512 - owned vacation home
- 220611 Contractors' labor and material costs, and cost of supplies rented for jobs considered

- addition, alteration, or new construction (see 220512) - owned home; management fees for capital improvements in condos and coops (non-vacation)
- 220612 Built-in dishwasher, garbage disposal, or range hood for jobs considered addition, alteration, or new construction - owned home and vacation home
- 220615 Same as 220611 - owned vacation home; vacation condos and coops
- ^{D112}220616 Installed and non-installed original wall to wall carpeting for owned homes
- 220901 Parking at owned home; management fees for parking in condos and coops (non-vacation)
- 220902 Parking at owned vacation home, vacation condos and coops
- 230112 Contractors labor and material costs, and cost of supplies rented for inside and outside painting and papering for jobs considered replacement or maintenance/repair - owned home; management fees for similar jobs in condos and coops (non-vacation)
- 230113 Same as 230112 for plumbing or water heating installations and repairs
- 230114 Same as 230112 for electrical work and heating or air - conditioning jobs (incl. service contracts)
- 230115 Same as 230112 for roofing, gutters, or downspouts
- 230117 Built-in dishwasher, garbage disposal, or range hood for jobs considered replacement or maintenance/repair - renter
- 230118 Same as 230117 - owned home
- 230121 Contractors' labor and material costs, and cost of supplies rented for repair or replacement of hard surfaced flooring - renter
- 230122 Contractors' labor and material costs, and cost of supplies rented for repair or replacement of hard surfaced flooring for jobs considered replacement or maintenance/repair- owned home; management fees for similar jobs in condos and coops (non-vacation)
- 230123 Same as 230122 - owned vacation home; vacation condos and coops
- ^{D112}230133 Installed and non-installed replacement wall to wall carpeting for owned homes
- ^{D112}230134 Installed and non-installed original wall to wall carpeting for rental homes
- 230141 Service contract charges and cost of maintenance or repair for built-in dishwasher, garbage disposal, or range hood - renter
- 230150 Repair or maintenance services (renter)
- 230151 Other repair or maintenance services (owned)
- 230152 Repair and remodeling services (owned vacation)
- 230142 Same as 230141 - owned home and vacation home
- 230901 Property management fees - owned home; condos and coops (non-vacation)
- 230902 Same as 230901 - owned vacation home; vacation condos and coops
- 240111 Cost of paint, wallpaper, and supplies purchased for inside and outside painting and papering - renter
- 240112 Same as 240111 - for jobs considered replacement or maintenance/repair - owned home
- 240113 Same as 240112 - owned vacation home
- 240121 Cost of equipment purchased for inside and outside painting and papering - renter
- 240122 Same as 240121 - for jobs considered replacement or maintenance/repair - owned home
- 240123 Same as 240122 - owned vacation home
- 240211 Cost of supplies purchased for plastering, paneling, roofing and gutters, siding, windows, screens, doors, awnings; portion of cost of supplies purchased for patios, walks, fences, driveways, swimming pools - renter
- 240212 Cost of supplies purchased for plastering, paneling, siding, windows, screens, doors, awnings for jobs considered replacement or maintenance/repair; portion of cost of supplies purchased for patios, walks, fences, driveways, swimming pools for jobs considered replacement or maintenance/repair - owned home
- 240213 Cost of supplies purchased for roofing, gutters, or downspouts for jobs considered replacement or maintenance/repair - owned home
- 240214 Same as 240212-240213 - owned vacation home
- 240221 Cost of supplies purchased for masonry, brick or stucco work; portion of cost of supplies purchased for patios, walks, fences, driveways, swimming pools - renter
- 240222 Same as 240221 for jobs considered replacement or maintenance/repair - owned home

240223 Same as 240222 - owned vacation home
 240311 Cost of supplies purchased for plumbing or water heating installations and repairs - renter
 240312 Same as 240311 for jobs considered replacement or maintenance/repair - owned home
 240313 Same as 240312 - owned vacation home
 240321 Cost of supplies purchased for electrical work, heating or air conditioning jobs - renter
 240322 Same as 240321 for jobs considered replacement or maintenance/repair - owned home
 240323 Same as 240322 - owned vacation home
 250111 Fuel oil - renter
 250112 Fuel oil - owned home; portion of management fees for utilities in condos and coops (non vacation)
 250113 Same as 250112 - owned vacation home; vacation condos and coops
 250114 Fuel oil - rented vacation property
 250211 Gas, bottled or tank - renter
 250212 Gas, bottled or tank - owned home
 250213 Gas, bottled or tank - owned vacation home
 250214 Gas, bottled or tank - rented vacation property
 250911 Other fuels – renter
 250912 Other fuels – owned home
 250913 Other fuels – owned vacation home
 250914 Other fuels – rented vacation property
 260111 Electricity – renter
 260112 Electricity – owned home; portion of management fees for utilities in condos and coops (non-vacation)
 260113 Same as 260112 – owned vacation home; vacation condos and coops
 260114 Electricity – rented vacation property
 260211 Natural or utility gas – renter
 260212 Natural or utility gas – owned home; portion of management fees for utilities in condos and coops (non-vacation)
 260213 Same as 260212 – owned vacation home; vacation condos and coops
 260214 Natural or utility gas – rented vacation property
 270101 Residential telephone or pay phones
 270102 Cellular phone service
 270104 Phone cards
 270105 Voice over IP telephone service
 270211 Water and sewerage maintenance – renter
 270212 Water and sewerage maintenance – owned home; portion of management fees for utilities in condos and coops (non-vacation)
 270213 Same as 270212 – owned vacation home; vacation condos and coops
 270214 Water and sewerage maintenance – rented vacation property
 270310 Cable, satellite, or community antenna service
 270311 Satellite radio service
 270411 Trash and garbage collection – renter
 270412 Trash and garbage collection – owned home; management fees for trash collection in condos and coops (non-vacation)
 270413 Same as 270412 – owned vacation home; vacation condos and coops
 270414 Trash and garbage collection – rented vacation property
 270901 Septic tank cleaning – renter
 270902 Septic tank cleaning – owned home
 270903 Septic tank cleaning – owned vacation home
 270904 Septic tank cleaning – rented vacation property
 280110 Bathroom linens
 280120 Bedroom linens
 280130 Kitchen and dining room linens
 280210 Curtains and drapes
 280220 Slipcovers, decorative pillows, and cushions

280230 Sewing materials for slipcovers, curtains, and other home handiwork
 280900 Other linens
 290110 Mattresses and springs
 290120 Other bedroom furniture
 290210 Sofas
 290310 Living room chairs
 290320 Living room tables
 290410 All kitchen and dining room furniture
 290420 Infants' furniture
 290430 Patio, porch, or outdoor furniture
 290440 Modular wall units, shelves or cabinets; other living room, family or recreation room furniture including desks
 300111 Purchase and installation of refrigerator or home freezer – renter
 300112 Purchase and installation of refrigerator or home freezer – homeowner
 300211 Purchase and installation of clothes washer – renter
 300212 Purchase and installation of clothes washer – homeowner
 300221 Purchase and installation of clothes dryer – renter
 300222 Purchase and installation of clothes dryer – homeowner
 300311 Purchase and installation of cooking stove, range or oven, excl. microwave – renter
 300312 Purchase and installation of cooking stove, range or oven, excl. microwave – homeowner
 300321 Purchase and installation of microwave oven – renter
 300322 Purchase and installation of microwave oven – homeowner
 300331 Purchase and installation of portable dishwasher – renter
 300332 Purchase and installation of portable dishwasher – homeowner
 300411 Window air conditioner – renter
 300412 Window air conditioner – homeowner
 310140 Televisions
 310220 Video cassettes, tapes, and discs
^{D112}310230 Video and computer game hardware and software
^{N112}310231 Video game software
^{N112}310232 Video game hardware/accessories
 310240 Streaming or downloaded video files
 310311 Radio
 310313 Tape recorder and player
 310314 Digital audio players
 310320 Sound components, component systems, and compact disc sound systems
 310333 Accessories and other sound equipment including phonographs
 310334 Satellite dishes
 310340 Records, CDs, audio tapes
 310350 Streaming or downloaded audio files
^{N112}310400 Applications, games, and ringtones for devices
 320111 Carpet squares for owned and rented homes (Non-Permanent)
 320120 Venetian blinds, window shades and other window coverings
 320130 Infants' equipment
 320150 Barbeque grills and outdoor equipment
 320162 Non-installed wall to wall carpeting (replacement) and carpet squares – homeowner
^{D112}320163 Installed and non-installed replacement wall to wall carpeting for rental homes
 320210 Clocks
 320220 Lamps and other lighting fixtures
 320232 Telephones and accessories
 320233 Clocks and other household decorative items
 320310 Plastic dinnerware
 320320 China and other dinnerware
 320330 Stainless, silver and other flatware
 320340 Glassware

- 320350 Silver serving pieces
- 320360 Serving pieces other than silver
- 320370 Non-electric cookware
- 320410 Lawnmowing equipment and other yard machinery
- 320420 Power tools
- 320511 Electric floor cleaning equipment
- 320512 Sewing machines
- 320521 Small electrical kitchen appliances
- 320522 Portable heating and cooling equipment
- 320611 Cost of supplies purchased for insulation and other improvements/repairs; materials and supplies purchased not for any specific job – renter
- 320612 Cost of supplies purchased for insulation and other improvements/repairs for jobs considered replacement or maintenance/repair; materials and supplies purchased not for any specific job – owned home
- 320613 Cost of supplies purchased for insulation and other improvements/repairs for jobs considered replacement or maintenance/repair – owned vacation home
- 320621 Cost of supplies purchased for repair or replacement of hard surfaced flooring – renter
- 320622 Cost of supplies purchased for repair or replacement of hard surfaced flooring for jobs considered replacement or maintenance/repair – owned home
- 320623 Same as 320622 – owned vacation home
- 320631 Cost of supplies purchased for landscaping – renter
- 320632 Cost of supplies purchased for landscaping for jobs considered replacement or maintenance/repair – owned home
- 320633 Same as 320632 – owned vacation home
- 320901 Office furniture for home use
- 320902 Non-power tools
- 320903 Fresh flowers or potted plants
- 320904 Closet storage items
- 330511 Cost of materials purchased for termite and pest control for jobs considered replacement or maintenance/repair
- 340211 Babysitting or other child care in your own home
- 340212 Babysitting or other child care in someone else's home
- 340310 Housekeeping service, incl. management fees for maid service in condos
- 340410 Gardening and lawn care services, incl. management fees for lawn care in coops and condos
- 340420 Water softening service
- 340510 Moving, storage, and freight express
- 340520 Non-clothing household laundry or dry cleaning – not coin-operated
- 340530 Non-clothing household laundry or dry cleaning – coin-operated
- 340610 Repair of television, radio, and sound equipment, excluding installed in vehicles
- 340620 Repair of household appliances, excl. garbage disposal, range hood, and built-in dishwasher
- 340630 Furniture repair, refinishing, or reupholstering
- 340901 Rental or repair of equipment and other yard machinery, power and non-power tools
- 340902 Rental of televisions
- 340903 Miscellaneous home services and small repair jobs not already specified
- 340904 Rental of furniture
- 340905 Rental of VCR, radio, and sound equipment – see 310210, 310311-310330
- 340906 Care for invalids, convalescents, handicapped or elderly persons in the CU
- 340907 Rental and installation of household equipment – see 300111-300332
- 340908 Rental of office equipment for non-business use – see 320232, 690111, 690119, 690120, 690210-690230
- 340910 Adult day care centers
- 340911 Management fees for security, incl. guards and alarm systems in coops and condos (non-vacation)
- 340912 Management fees for security, incl. guards and alarm systems in coops and condos

(vacation)

- 340914 Services for termite/pest control maintenance
- 340915 Service fee expenditures for home security systems
- 350110 Renter's insurance
- 360110 Men's suits
- 360120 Men's sport coats
- 360210 Men's coats, jackets, and furs
- 360311 Men's underwear
- 360312 Men's hosiery
- 360320 Men's nightwear
- 360330 Men's accessories
- 360340 Men's sweaters and vests
- 360350 Men's swimsuits, warm-up or ski suits
- 360410 Men's shirts
- 360513 Men's pants and shorts
- 360901 Men's uniforms
- 360902 Men's other clothing, incl. costumes
- 370110 Boys' coats, jackets, and furs
- 370120 Boys' sweaters
- 370130 Boys' shirts
- 370211 Boys' underwear
- 370212 Boys' nightwear
- 370213 Boys' hosiery
- 370220 Boys' accessories
- 370311 Boys' suits, sport coats, and vests
- 370314 Boys' pants and shorts
- 370902 Boys' other clothing, incl. costumes
- 370903 Boys' uniforms
- 370904 Boys' swimsuits, warm-up or ski suits
- 380110 Women's coats, jackets, and furs
- 380210 Women's dresses
- 380311 Women's sport coats and tailored jackets
- 380312 Women's vests, sweaters, and sweater sets
- 380313 Women's shirts, tops, and blouses
- 380320 Women's skirts and culottes
- 380333 Women's pants and shorts
- 380340 Women's swimsuits, warm-up or ski suits
- 380410 Women's nightwear
- 380420 Women's undergarments
- 380430 Women's hosiery
- 380510 Women's suits
- 380901 Women's accessories
- 380902 Women's uniforms
- 380903 Women's other clothing, incl. costumes
- 390110 Girls' coats, jackets, and furs
- 390120 Girls' dresses and suits
- 390210 Girls' sport coats, tailored jackets, shirts, blouses, sweaters, sweater sets, and vests
- 390223 Girls' pants and shorts
- 390230 Girls' swimsuits, warm-up or ski suits
- 390310 Girls' undergarments and nightwear
- 390321 Girls' hosiery
- 390322 Girls' accessories
- 390901 Girls' uniforms
- 390902 Girls' other clothing, incl. costumes
- 400110 Men's footwear
- 400210 Boys' footwear

400220 Girls' footwear
 400310 Women's footwear
 410110 Infants' coats, jackets, and snowsuits
 410120 Infants' dresses and other outerwear
 410130 Infants' undergarments, incl. diapers
 410140 Infants' sleeping garments
 410901 Infants' accessories, hosiery, and footwear
 420110 Sewing materials for making clothes
 420120 Sewing notions, patterns
 430110 Watches
 430120 Jewelry
 430130 Travel items, including luggage, and luggage carriers
 440110 Shoe repair and other shoe services
 440120 Apparel laundry and dry cleaning – coin-operated
 440130 Alteration, repair, and tailoring of apparel and accessories
 440140 Clothing rental
 440150 Watch and jewelry repair
 440210 Apparel laundry and dry cleaning – not coin-operated
 440900 Clothing storage outside the home
 450110 New cars (net outlay)
 450116 Trade-in allowance for new cars
 450210 New trucks or vans (net outlay)
 450216 Trade-in allowance for new trucks or vans
 450220 New motorcycles, motor scooters, or mopeds (net outlay)
 450226 Trade-in allowance for new motorcycles, motor scooters, or mopeds
 450310 Basic lease charge (car lease)
 450311 Charges other than basic lease, such as insurance or maintenance (car lease)
 450312 Trade-in allowance (car lease)
 450313 Cash down payment (car lease)
 450314 Termination fee (car lease)
 450410 Basic lease charge (truck/van lease)
 450411 Charges other than basic lease, such as insurance or maintenance (truck/van lease)
 450412 Trade-in allowance (truck/van lease)
 450413 Cash down payment (truck/van lease)
 450414 Termination fee (truck/van lease)
 460110 Used cars (net outlay)
 460116 Trade-in allowance for used cars
 460901 Used trucks or vans (net outlay)
 460902 Used motorcycles, motor scooters, or mopeds (net outlay)
 460907 Trade-in allowance for used trucks or vans
 460908 Trade-in allowance for used motorcycles, motor scooters, or mopeds
 470111 Gasoline
 470112 Diesel fuel
 470113 Gasoline on out-of-town trips
 470211 Motor oil
 470212 Motor oil on out-of-town trips
 470220 Coolant/antifreeze, brake & transmission fluids, additives, and radiator/cooling system
 protectant (not purchased with tune-up)
 480110 Tires (new, used or recapped); replacement and mounting of tires, including tube
 replacement
 480212 Vehicle products and services
 480213 Vehicle parts, equipment, and accessories
 480214 Vehicle audio equipment excluding labor
 480215 Vehicle video equipment
 490110 Body work, painting, repair and replacement of upholstery, vinyl/convertible top, and
 glass, installation of carpet

- 490211 Clutch and transmission repair
- 490212 Drive shaft and rear-end repair
- 490221 Brake work
- 490231 Steering or front end repair
- 490232 Cooling system repair
- 490311 Motor tune-up
- 490312 Lubrication and oil changes
- 490313 Front end alignment, wheel balance and rotation
- 490314 Shock absorber replacement
- 490318 Repair tires and miscellaneous repair work, such as battery charge, wash, wax, repair and replacement of windshield wiper, wiper motor, heater, air conditioner, radio and antenna
- 490319 Vehicle air conditioner repair
- 490411 Exhaust system repair
- 490412 Electrical system repair
- 490413 Motor repair and replacement
- 490501 Vehicle accessories including labor
- 490900 Auto repair service policy
- 500110 Vehicle insurance
- 510110 Automobile finance charges
- 510901 Truck or van finance charges
- 510902 Motorcycle finance charges
- 520310 Driver's license
- 520410 Vehicle inspection
- 520511 Auto rental, excl. trips
- 520512 Auto rental on out-of-town trips
- 520521 Truck or van rental, excl. trips
- 520522 Truck or van rental on out-of-town trips
- 520531 Parking fees at garages, meters, and lots excl. fees that are costs of property ownership
- 520532 Parking fees on out-of-town trips
- 520541 Tolls or electronic toll passes
- 520542 Tolls on out-of-town trips
- 520550 Towing charges (excl. contracted or pre-paid)
- 520560 Global positioning services
- 520901 Docking and landing fees for boats and planes
- 520902 Motorcycle, motor scooter, or moped rental
- 520904 Rental of non camper-type trailer, such as for boat or cycle
- 520905 Same as 520902 – out-of-town trips
- 520907 Rental of boat or non camper-type trailer, such as for boat or cycle on out-of-town trips
- 530110 Airline fares on out-of-town trips
- 530210 Intercity bus fares on out-of-town trips
- 530311 Intracity mass transit fares
- 530312 Local transportation (excl. taxis) on out-of-town trips
- 530411 Taxi fares on out-of-town trips
- 530412 Taxi fares and limousine service (not on trips)
- 530510 Intercity train fares on out-of-town trips
- 530901 Ship fares on out-of-town trips
- 530902 Private school bus
- *L 540000 Prescription drugs and medicines (net outlay)
- *L 550110 Purchase of eye glasses or contact lenses, incl. kits and equipment, fittings, warranty expenses, and insurance (net outlay)
- *L 550320 Purchase of medical or surgical equipment for general use, such as thermometers, needles/syringes, ice bags, heating pads, orthopedic appliances, and blood pressure kits (not including band aids, gauze, cotton rolls/balls) (net outlay)
- *L 550330 Purchase of supportive or convalescent medical equipment, such as crutches, wheelchairs, braces, and ace bandages (net outlay)

- *L 550340 Hearing aids (net outlay)
- *L 560110 Physicians' services (net outlay)
- *L 560210 Dental care (net outlay)
- *L 560310 Eye exams, treatment or surgery (net outlay)
- *L 560330 Lab tests and X-rays (net outlay)
- *L 560400 Services by medical professionals other than physicians, nursing services, and
therapeutic treatments (net outlay)
- 570111 Hospital room and services
- *L 570220 Care in convalescent or nursing home (net outlay)
- *L 570230 Other medical care service, such as blood donation, ambulance, emergency room, or
outpatient hospital services (net outlay)
- 570240 Medical care in retirement community
- *L 570901 Rental of medical or surgical equipment for general use (net outlay) – see 550320
- *L 570903 Rental of supportive and convalescent equipment (net outlay) – see 550330
- 580111 Traditional fee for service health plan (not BC/BS)
- 580112 Traditional fee for service health plan (BC/BS)
- 580113 Preferred provider health plan (not BC/BS)
- 580114 Preferred provider health plan (BC/BS)
- 580311 Health maintenance organization (not BC/BS)
- 580312 Health maintenance organization (BC/BS)
- 580400 Long Term Care insurance
- 580901 Medicare payment
- 580903 Commercial Medicare supplement (not BC/BS)
- 580904 Commercial Medicare supplement (BC/BS)
- 580905 Other health insurance (not BC/BS)
- 580906 Other health insurance (BC/BS)
- 580907 Medicare Prescription Drug premium
- 590220 Books through book clubs
- 590230 Books not through book clubs
- 590310 Magazine or newspaper subscription
- 590410 Magazine or newspaper, single copy
- 600110 Outboard motor
- 600121 Boat without motor or non camper-type trailer, such as for boat or cycle (net outlay)
- 600122 Trailer-type or other attachable-type camper (net outlay)
- 600127 Trade in allowance for boat without motor or non camper-type trailer, such as for boat or
cycle
- 600128 Trade-in allowance for trailer-type or other attachable-type camper
- 600132 Boat with motor (net outlay)
- 600138 Trade-in allowance for boat with motor
- 600141 Purchase of motor home
- 600142 Purchase of other vehicle
- 600143 Trade in allowance for motor home
- 600144 Trade in allowance, other vehicle
- 600210 Ping-Pong, pool tables, other similar recreation room items, general sports equipment,
and health and exercise equipment
- 600310 Bicycles
- 600410 Camping equipment
- 600420 Hunting and fishing equipment
- 600430 Winter sports equipment
- 600901 Water sports equipment
- 600902 Other sports equipment
- 610110 Toys, games, arts, crafts, tricycles, and battery powered riders
- 610120 Playground equipment
- 610130 Musical instruments, supplies, and accessories (now includes pianos)
- 610210 Photographic film
- 610230 Photographic equipment

610320 Pets, pet supplies and medicine for pets
 610900 Miscellaneous recreational expenses on out-of-town trips
 620111 Membership fees for country clubs, health clubs, swimming pools, tennis clubs, social or other recreational organizations, civic, service, or fraternal organizations
 620112 Membership fees for credit card memberships
 620113 Membership fees for automobile service clubs
 620115 Membership fees for shopping clubs
 620121 Fees for participant sports, such as golf, tennis, and bowling; management fees for recreational facilities, such as tennis courts and swimming pools in condos and coops
 620122 Fees for participant sports on out-of-town trips
 620211 Admission fees for entertainment activities, including movie, theater, concert, opera or other musical series (single admissions and season tickets)
 620212 Entertainment expenses on out-of-town trips, including admissions to events, museums and tours
 620221 Admission fees to sporting events (single admissions and season tickets)
 620222 Admission fees to sporting events on out-of-town trips
 620310 Fees for recreational lessons or other instructions
 620320 Professional photography fees
 620330 Film processing
 620410 Pet services
 620420 Veterinarian expenses for pets
 620903 Miscellaneous entertainment services on out-of-town trips
 620904 Rental and repair of musical instruments, supplies, and accessories (now includes pianos)
 620905 Rental and repair of photographic equipment
 620906 Rental of all boats and outboard motors
 620908 Rental and repair of sports, recreation, and exercise equipment
 620909 Rental of all campers on out-of-town trips
 620912 Rental of video cassettes, tapes, and discs
^{D112}620916 Rental of video or computer hardware or software
^{N112}620917 Rental of video hardware/accessories
^{N112}620918 Rental of video software
 620919 Rental of other vehicles on out-of-town trips
 620921 Rental of motor home
 620922 Rental of other RV's
 620926 Lotteries and pari-mutuel losses
 620930 Online entertainment and games
 630110 Cigarettes
 630210 Cigars, pipe tobacco, and other tobacco products
 640130 Wigs, hairpieces, or toupees
 640420 Electric personal care appliances
^{N112}640430 Adult diapers
 650310 Personal care services for males and females, including haircuts
 650900 Rental and repair of personal care appliances
 660110 School books, supplies, and equipment for college
 660210 Same as 660110 – elementary and high school
 660310 Encyclopedia and other sets of reference books
 660410 School books, supplies, and equipment for vocational or technical school
 660900 Same as 660110 – day care center, nursery school, and other schools
 660901 School books, supplies, and equipment for day care centers and nursery schools
 660902 School books, supplies, and equipment for other schools
 670110 Tuition for college
 670210 Same as 670110 – elementary and high school
 670310 Other expenses for day care centers and nursery schools, including tuition
 670410 Tuition for vocational or technical school
 670901 Same as 670110 – other schools

670902 Rentals of books and equipment, and other school-related expenses
 670903 Test preparation, tutoring services
 680110 Legal fees, excluding real estate closing costs
 680140 Funeral, burial or cremation expenses, including limousine and flowers
 680210 Safe deposit boxes
 680220 Charges for checking accounts and other banking services
 680310 Live entertainment for catered affairs
 680320 Rental of party supplies for catered affairs
 680905 Vacation clubs
 680901 Purchase and upkeep of cemetery lots or vaults
 680902 Accounting fees
 680904 Dating services
 690111 Computers, computer systems, and related hardware for non-business use
 D112 690112 Computer software and accessories for non-business use
 690113 Repair of computers, computer systems, and related equipment for non-business use
 690114 Computer information services
 690115 Personal digital assistants
 690116 Internet services away from home
 690117 Portable memory
 N112 690118 Digital book readers
 N112 690119 Computer software
 N112 690120 Computer Accessories
 690210 Telephone answering devices
 690230 Typewriters and other office machines for non-business use
 690241 Purchases and rentals of smoke alarms and detectors – renter
 690242 Same as 690241 – owned home
 690243 Same as 690241 – owned vacation home
 690244 Other household appliances – renter
 690245 Same as 690244 – homeowner
 690310 Installation for computers
 690320 Installation for TVs
 690330 Installation for satellite TV equipment
 690350 Installation of other video or sound systems
 690340 Installation of sound systems
 700110 Life, endowment, annuities, and other insurance policies providing death benefits
 710110 Finance charges, excluding mortgage and vehicles
 790210 Total purchases at grocery stores
 790240 Average food and non-alcoholic beverage expenses
 790310 Beer and wine for home use
 790320 Other alcoholic beverages for home use
 790330 Beer, wine, and other alcohol for home use
 790410 Dining out at restaurants, cafeterias, drive-ins, etc. (excluding alcoholic beverages)
 790420 Alcoholic beverages at restaurants, cafeterias, drive-ins, etc.
 790430 School meals for preschool and school age children
 790600 Same as 220111, 1220121, 220211, 220311, 220313, 220321, 210901, 250111-260211,
 270211-270904, incl. management fees for these services – other properties;
 contractors' labor and material costs, and cost of supplies rented for jobs considered
 replacement or maintenance/repair – other properties; cost of supplies purchased for
 jobs considered replacement or maintenance/repair, excl. dwellings and additions
 being built, and termite and pest control – other properties
 790610 Contractors' labor and material costs, cost of supplies rented or purchased for jobs
 considered addition, alteration or new construction – other properties
 790611 Same as 220612 – other properties
 790620 Management fees for capital improvements – other properties
 790630 Special assessments for services and capital improvements – other properties
 790640 Same as 790620 for management, security, and parking – other properties

790690 Cost of supplies purchased for dwellings and additions being built, finishing basement or attic, remodeling rooms, building outdoor patios, driveways, or permanent swimming pools – jobs not yet started – renter
 790710 Purchase price of property excluding cost of common areas – other properties
 790730 Closing costs – other properties
 *L 790810 Selling price or trade-in value – other properties
 790830 Total selling expenses – other properties
 *L 790910 Special or lump-sum mortgage payments – other properties
 *L 790920 Reduction of mortgage principal – other properties
 790930 Original mortgage amount (mortgage obtained during current quarter’s interview) – other properties
 790940 Reduction of principal on lump sum home equity loan – other properties
 790950 Original amount of lump sum home equity loan – other properties (loan obtained during current quarter’s interview)
 800111 Alimony expenditures
 800121 Child support expenditures
 800700 Meals received as pay
 800710 Rent received as pay
 800721 Market value of owned home
 800804 Support for college students
 800811 Gifts to non-CU members of stocks, bonds, mutual funds
 800821 Cash contributions to charities, other organizations
 800831 Cash contributions to churches or religious organizations
 800841 Cash contributions to educational institutions
 800851 Cash contributions to political organizations
 800861 Other cash gifts
 810101 Purchase price of property excluding cost of common areas – owned home
 810102 Purchase price of property excluding cost of common areas – owned vacation home
 810301 Closing costs – owned home
 810302 Closing costs – owned vacation home
 810400 Trip expenses for persons outside the CU
 *L 820101 Selling price or trade-in value – owned home
 *L 820102 Selling price or trade-in value – owned vacation home
 820301 Total selling expenses – owned home
 820302 Total selling expenses – owned vacation home
 *L 830101 Special or lump-sum mortgage payments – owned home
 *L 830102 Special or lump-sum mortgage payments – owned vacation home
 *L 830201 Reduction of mortgage principal – owned home; portion of management fees for repayment of loans in coops (non-vacation)
 *L 830202 Same as 830201 – owned vacation home; vacation coops
 *L 830203 Reduction of principal on lump sum home equity loan – owned home
 *L 830204 Reduction of mortgage principal, lump sum home equity loan – owned vacation home
 830301 Original mortgage amount (mortgage obtained during current quarter’s interview) – owned home
 830302 Original mortgage amount (mortgage obtained during current quarter’s interview) – owned vacation home
 830303 Original amount of lump sum home equity loan (loan obtained during current quarter’s interview) – owned home
 830304 Original amount of lump sum home equity loan (loan obtained during current quarter’s interview) – owned vacation home
 840101 Amount for special assessment for roads, streets, or similar purposes not included in property tax – owned home
 840102 Amount for special assessment for roads, streets, or similar purposes not included in property tax – owned vacation home
 *L 850100 Reduction of principal on vehicle loan
 850200 Amount borrowed excluding interest on vehicle loan

850300 Finance charges on other vehicles
 *L 860100 Amount automobile sold or reimbursed
 *L 860200 Amount truck or van sold or reimbursed
 *L 860301 Amount motor home sold or reimbursed
 *L 860302 Amount other vehicle sold or reimbursed
 *L 860400 Amount trailer-type or other attachable-type camper sold or reimbursed
 *L 860500 Amount motorcycle, motor scooter, or moped sold or reimbursed
 *L 860600 Amount boat with motor sold or reimbursed
 *L 860700 Amount boat without motor or non camper-type trailer, such as for or cycle sold or reimbursed
 870101 New cars, trucks, or vans (net outlay), purchase not financed
 870102 Cash downpayment for new cars, trucks, or vans, purchase financed
 870103 Finance charges on loans for new cars, trucks, or vans
 870104 Principal paid on loans for new cars, trucks, or vans
 870201 Used cars, trucks, or vans (net outlay), purchase not financed
 870202 Cash downpayment for used cars, trucks, or vans, purchase financed
 870203 Finance charges on loans for used cars, trucks, or vans
 870204 Principal paid on loans for used cars, trucks, or vans
 870301 Motorcycles, motor scooters, or mopeds (net outlay), purchase not financed
 870302 Cash downpayment for motorcycles, motor scooters, or mopeds, purchase financed
 870303 Finance charges on loans for motorcycles, motor scooters, or mopeds
 870304 Principal paid on loans for motorcycles, motor scooters, or mopeds
 870401 Boat without motor or non camper-type trailer, such as for boat or cycle (net outlay), purchase not financed
 870402 Cash downpayment for boat without motor, or non camper-type trailer, such as for boat or cycle, purchase financed
 870403 Finance charges on loans for boat without motor or non camper-type trailer, such as for boat or cycle
 870404 Principal paid on loans for boat without motor, or non camper-trailer, such as for boat or cycle
 870501 Trailer-type or other attachable-type camper (net outlay), purchase not financed
 870502 Cash downpayment for trailer-type or other attachable-type camper, purchase financed
 870503 Finance charges on loans for trailer-type or other attachable-type camper
 870504 Principal paid on loans for trailer-type or other attachable-type camper
 870605 Purchase of motor home, not financed
 870606 Principal, motor home, financed
 870607 Interest, motor home, financed
 870608 Downpayment, motor home, financed
 870701 Boat with motor (net outlay), purchase not financed
 870702 Cash downpayment for boat with motor, purchase financed
 870703 Finance charges on loans for boat with motor
 870704 Principal paid on loans for boat with motor
 870801 Purchase of other vehicle, not financed
 870802 Principal, other vehicle, financed
 870803 Interest, other vehicle, financed
 870804 Down payment, other vehicle, financed
 880110 Interest on line of credit home equity loan – owned home
 *L 880120 Reduction of principal on line of credit home equity loan – owned home
 880210 Interest on line of credit home equity loan – other properties
 *L 880220 Reduction of principal on line of credit home equity loan – other properties
 880310 Interest on line of credit home equity loan – owned vacation home
 *L 880320 Reduction of principal on line of credit home equity loan – owned vacation home
 900002 Occupational expenses
 910042 Monthly transit subsidy amount
 910050 Rental equivalence of owned home
 910101 Rental equivalence for vacation home not available for rent

- 910102 Rental equivalence for vacation home available for rent
- 910103 Rental equivalence for timeshares
- 910104 CPI Adjusted rental equivalence of vacation owned home
- 910105 CPI Adjusted rental equivalence of vacation home not available for rent
- 910106 CPI Adjusted rental equivalence of vacation home available for rent
- 910107 CPI Adjusted rental equivalence for timeshares
- 990900 Rental and installation of dishwasher, disposal, and range hood
- 990920 Cost of supplies purchased for dwellings and additions being built, finishing basement or attic, remodeling rooms, or building outdoor patios, walks, fences, driveways or swimming pools - renter
- 990930 Cost of supplies purchased finishing basement or attic, remodeling rooms or building outdoor patios, walks, fences, driveways or swimming pools for jobs considered maintenance/repair - owner
- 990940 Same as 990930 - owned vacation home
- 990950 Contractors' labor and material costs, and cost of supplies rented for dwellings and additions being built - other properties

B. INCOME AND RELATED UCCS ON ITBI FILE

- 001000 Purchase price of stocks, bonds, or mutual funds including broker fees
- *L 001010 Sale price of stocks, bonds, and mutual funds, net
- 001210 Investments to farm or business
- *L 001220 Assets taken from farm and business
- *L 002010 Change in savings account
- *L 002020 Change in checking account
- *L 002030 Change in amount held in U.S. savings bonds
- *L 003000 Change in money owed to CU
- *L 003100 Amount received in settlement on surrender of insurance policies
- 800910 Payroll deductions for government retirement
- 800920 Payroll deductions for railroad retirement
- 800931 Payroll deductions for private pensions
- 800932 Non-payroll deposit to individual retirement plan
- 800940 Payroll deductions for Social Security
- 900000 Wages and salaries
- *L 900010 Net business income
- *L 900020 Net farm income
- 900030 Social Security and railroad retirement income
- 900040 Pensions and annuities
- 900050 Dividends, royalties, estates or trusts
- *L 900060 Income from roomers and boarders
- *L 900070 Other rental income
- 900080 Interest from savings accounts or bonds
- 900090 Supplemental security income
- 900100 Unemployment compensation
- 900110 Workers' compensation and veterans payments including education
- 900120 Public assistance or welfare including money received from job training grants such as Job Corps
- 900131 Child support payments received (regular)
- 900132 Other regular contributions received including alimony
- 900140 Other income including money received from care of foster children, cash scholarships and fellowships or stipends not based on working
- 900150 Food stamps

910000 Lump sum payments from estates, trusts, royalties, alimony, child support, prizes or games of chance or from persons outside CU
 910010 Money from sale of household furnishings, equipment, clothing, jewelry, pets or other belongings, excluding the sale of vehicles or property
 910020 Overpayment on Social Security
 910030 Refund from insurance policies
 910040 Refunds from property taxes
 910041 Lump sum child support payments received
 920010 Market value of savings accounts
 920020 Market value of checking accounts, brokerage accounts and other similar accounts
 920030 Market value of U.S. savings bonds
 920040 Market value of stocks, bonds, mutual funds and other such securities
 *L 950001 Federal income tax refunds
 950002 Federal income tax - deducted
 950003 Additional federal income tax paid
 *L 950011 State and local income tax refunds
 950012 State and local income tax – deducted
 950013 Additional state and local income tax paid
 950021 Other taxes
 950022 Personal property taxes
 *L 950023 Other tax refunds
 *L 980000 Income before taxes
 980010 Family size
 980020 Age of reference person
 980030 Number of earners
 980040 Number of vehicles
 980050 Number of persons under 18
 980060 Number of persons 65 and over
 *L 980070 Income after taxes
 980090 Percent homeowner
 980210 Percent male reference person
 980220 Percent female reference person
 980230 Percent homeowner with mortgage
 980240 Percent homeowner without mortgage
 980250 Percent homeowner, mortgage not reported
 980260 Percent renter
 980270 Percent black reference person
 980281 Percent white reference person
 980282 Percent Asian reference person
 980283 Percent Other race reference person
 980285 Percent Hispanic or Latino reference person
 980286 Percent non-Hispanic or Latino reference person
 980290 Percent reference person with elementary education
 980300 Percent reference person with high school education
 980310 Percent reference person with college education
 980320 Percent reference person with no education/other
 980330 Percent vehicle owner
 980340 Percent of CUs with at least one leased auto, truck, or van
 980350 Percent of CUs with at least one owned or leased vehicle
 980360 Number of vehicles leased

XIV.APPENDIX 3 -- UCC AGGREGATION

The Istub file in the Programs folder of the 2011 documentation found online shows the UCC aggregation used in the sample program. New and used aircraft purchases are not on the microdata files for confidentiality reasons. They are included in the published CE tables so transportation estimates based on these data may vary slightly from BLS published tables.

XV.APPENDIX 4—PUBLICATIONS AND DATA RELEASES FROM THE CONSUMER EXPENDITURE SURVEY

CONSUMER EXPENDITURE SURVEY DATA ON THE INTERNET

CE reports and data tables can be found on-line at <http://www.bls.gov/cex/home.htm> .

The following One and Two-year Tables of integrated Diary and Interview data are available under the [Tables Created by BLS](#) heading:

One Year Tables

- Standard Tables from 1984-2011
- Expenditure Shares Tables from 1998-2011
- Aggregate Expenditure Shares Tables from 1998-2011

Two Year Tables

- Cross-Tabulated Tables from 1986-2011
- Metropolitan Statistical Area Tables from 1986-2011
- Region Tables from 1998-2011
- High Income Tables from 1998-2002
- Multi-Year Tables for 1984-1992 and 1994-2011

CD-ROMS and Free Online Data

The data releases are to be made available online in reverse chronological order, starting with the 2010 data release in July 2012, with prior years appearing incrementally until the 1996 data release is posted. Post-1995 data releases will remain available on CD-ROM for purchase until posted online. Please see [PUMD on CD-ROM](#) for ordering information.

Pre-1996 PUMD will continue to only be available on CD-ROM for purchase. Plans for a future project to make pre-1996 data available online are in the works, but no timetable has been set for its release.

For information and downloading of past PUMD releases, please visit the links below. Multiple zip files can also be downloaded at one time. Please see [Instructions for Downloading Consumer Expenditure Survey \(CE\) Microdata and Documentation](#) for information on downloading the files.

Public Use Microdata that are not available online must be purchased through the Bureau of Labor Statistics Division of Financial Planning and Management. To purchase CD-ROMs by check or charge, print and complete the order form [\(PDF\)](#) and return it with payment to: Bureau of Labor Statistics Division of Financial Planning and Management, Room 4135, 2 Massachusetts Avenue, NE Washington, DC 20212-0001. Phone (202) 691-7794, Fax (202) 691-7796.

CE microdata on CD-ROM are available from the Bureau of Labor Statistics for 1972-73, 1980-81, 1990-91, 1992-93, and for each individual year from 1994-2009 (excluding those years which are currently available for free download online). The 1980-81 through 2009 releases contain Interview and Diary data, while the 1972-73 CD includes Interview data only. The 1980-81, and the 1990 files (of the 1990-91 CD) include selected EXPN data, while the 1991 files (from the 1990-91 CD) and the 1992-93 CD do not. In addition to the Interview and Diary data, the CDs from 1994-2004 include the complete collection of EXPN files. A 1984-94 "multi-year" CD that presents Interview FMLY file data is also available. In

addition to the microdata, the CD's also contain the same integrated Diary and Interview tabulated data (1984-2009) that are found on the Consumer Expenditure Survey web site (<http://www.bls.gov/cex>).

More information on the particular CD-ROMs available and the order form can be found on the Consumer Expenditure Survey web site: <http://www.bls.gov/cex/pumhome.htm#order>

STATE CODES

State codes from 1982 to 1993 are available for the Interview Survey on diskette. The files contain the variables NEWID and STATE, thus enabling the microdata user to identify the states in which consumer units reside. Caution should be exercised when analysis is done by state, due to the composition of some PSUs. PSUs in some state border areas may not be unique to one state, but may contain CUs from two or more states. (See [Section X.D. STATE IDENTIFIER](#).) Also, because of nondisclosure requirements STATE has been suppressed for some sampled CUs. (See [Section IV.A. CU CHARACTERISTICS AND INCOME FILE \(FMLY\)](#).) The state data files are free and may be obtained by contacting the BLS national office.

XVI. INQUIRIES, SUGGESTIONS, AND COMMENTS

If you have any questions, suggestions, or comments about the survey, the microdata, or its documentation, please call (202) 691-6900 or email cexinfo@bls.gov.

Written suggestions and comments should be forwarded to:

Division of Consumer Expenditure Survey
Branch of Information and Analysis
Bureau of Labor Statistics, Room 3985
2 Massachusetts Ave. N.E.
Washington, DC. 20212-0001

The Bureau of Labor Statistics will use these responses in planning future releases of the microdata.