

2014 Topcoding and Suppression

INTERVIEW SURVEY AND DIARY SURVEY
CONSUMER EXPENDITURE
PUBLIC USE MICRODATA

September 3, 2015

U.S. Department of Labor
Bureau of Labor Statistics
Division of Consumer Expenditure Survey

I. Table of Contents

II. INTERVIEW SURVEY	3
A. CU CHARACTERISTICS AND INCOME FILE (FMLI)	3
1. <i>Directly topcoded</i>	3
2. <i>Indirectly topcoded</i>	6
A. MEMBER CHARACTERISTICS AND INCOME FILE (MEMI)	8
1. <i>Direct topcoding</i>	8
2. <i>Special suppression for MEMI file variables</i>	10
B. MONTHLY EXPENDITURE FILE (MTBI)	11
C. INCOME FILE (ITBI)	11
D. DETAILED EXPENDITURE FILES (EXPN)	12
III. DIARY SURVEY	34
A. CU CHARACTERISTICS AND INCOME FILE (FMLD)	34
1. <i>Directly topcoded</i>	34
2. <i>Indirectly topcoded</i>	37
B. MEMBER CHARACTERISTICS AND INCOME FILE (MEMD)	39
C. DETAILED EXPENDITURE FILE (EXPD)	42
D. INCOME FILE (DTBD)	43
IV. STATE SUPPRESSION FOR BOTH SURVEYS	44

Topcoding and Other Nondisclosure Requirements

CE needs to ensure that users are not able to identify consumer units' (CU) who participated in the survey. CE ensures protects the respondents' identify by changing sensitive data with two methods: Topcoding and suppression.

Topcoding refers to the replacement of data if 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.' For simplicity this document will refer only to "topcoding," but the reader should be aware that outliers at the lower extremes may also be "bottom-coded."

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, means are 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.

Suppression refers to the suppression of data if the value of the original data could reveal the identity but topcoding is not suitable. For example, state information is suppressed by changing the code from one state to that of a neighboring state.

II. Interview Survey

A. CU Characteristics and Income File (FMLI)

1. Directly topcoded

The following table shows the FMLI file variables that are subject to topcoding and their associated critical values and topcode values. For multiple imputed income variables, it is possible for an upper topcode value to be less than the upper critical value or for a lower topcode value to be greater than the lower critical value.

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
CREDITX	Total amount owed on all credit cards	30,000	-	51,323	-
CREDTYRX	Total amount owed on all credit cards, one year ago	30,000	-	50,919	-
FEDRFNDX	Amount of refund received from Federal income tax	9,000	-	14,279	-
FEDTAXX	Amount of Federal income tax paid in addition to that withheld	32,000	-	82,228	-
INTRDVX	Amount received in interest in last 12 months	32,000	-	98,338	-
INTRDVXM	Amount received in interest in last 12 months	32,000	-	55,632	-
IRAX	Total value of all retirement accounts	1,000,000	-	2,634,911	-
IRAYRX	Total value of all retirement accounts, one year ago	887,000	-	2,128,736	-
LIQUDYRX	Total value of accounts, one year ago	160,000	-	515,460	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
LIQUIDX	Total value of accounts	160,000	-	490,959	-
LUMPSUMX	Amount of lump sum receipts	160,000	-	549,195	-
MISCTAXX	Amount of other taxes paid during the past 12 months	14,000	-	25,239	-
NETRENTM	Net rental income or loss	60,000	(15,000)	76,031	(10,950)
NETRENTX	Net rental income or loss	60,000	(15,000)	114,786	(54,987)
OTHASTX	Value of other financial assets	1,000,000	-	2,766,667	-
OTHFINX	Total amount paid in financial late charges on all other accounts	430	-	3,363	-
OTHLNYRX	Total amount owed on all other loans, one year ago	55,000	-	390,000	-
OTHLONX	Total amount owed on all other loans	40,000	-	310,625	-
OTHREGX	Amount of income from other sources	40,000	-	63,667	-
OTHREGXM	Amount of income from other sources	40,000	-	55,788	-
OTHRINCM	Amount received in other money income	37,000	-	31,246	-
OTHRINCX	Amount received in other money income	37,000	-	57,875	-
OTHSTYRX	Value of other financial assets, one year ago	500,000	-	1,533,333	-
RENTEQVX	Estimated monthly rental equivalence of owned home	3,200	-	4,694	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
RETSURVM	Amount of income received from retirement, survivor, or disability pensions	80,000	-	93,030	-
RETSURVX	Amount of income received from retirement, survivor, or disability pensions	80,000	-	126,946	-
ROYESTX	Amount of income from royalties, estates or trusts	80,000	-	159,191	-
ROYESTXM	Amount of income from royalties, estates or trusts	80,000	-	91,828	-
SLOCTAXX	State and local tax paid in addition to that withheld	8,000	-	26,570	-
SLRFUNDX	Refund received from state and local income tax	2,331	-	4,169	-
STOCKX	Total value directly held in stocks, bonds and mutual funds	1,400,000	-	6,586,697	-
STOCKYRX	Total value directly held in stocks, bonds and mutual funds, one year ago	1,350,000	-	5,784,192	-
WHLFYRX	Total surrender value of policies, one year ago	300,000	-	767,375	-
WHOLIFX	Total surrender value of policies	300,000	-	789,231	-

2. Indirectly topcoded

Some income variables that are subject to topcoding are constructed by summing up the values of “lower level” component variables from the MEMI or FMLI file. 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. See the descriptions of each variable in the interview data dictionary for a list of component variables.

Variable	Description
FAMTFEDX, FAMTFEDM	Amount of Federal income tax deducted from last pay, annualized for all CU members
FSMPFRMX, FSMPFRXM	Amount of income or loss received from self-employment income
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
FJSSDEDX, FJSSDEDM	Estimated amount of annual Social Security contribution
FPRIPENX, FPRIPENM	Amount of private pension fund deducted from last pay, annualized for all CU members
FRRDEDX, 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
NONINCMX	Amount of other money receipts excluded from family income
TOTTXPDX, TOTTXPDM	Amount of personal taxes paid

Example of indirectly topcoded variable

Here are some examples of indirect topcoding. The value for the variable FSMPFRMX (family income or loss from self-employment) is computed as the sum of the values reported for the variable SEMPFRMX (member income or loss from self-employment) from the MEMI file. SEMPFRMX is subject to topcoding beyond the critical value of \$150,000 (-\$170,000). The topcode value for SEMPFRMX is \$321,846 (-\$435,000). See [MEMBER CHARACTERISTICS AND INCOME FILE \(MEMI\)](#).

<u>CU</u>		<i>SEMPFRMX</i>		<i>FSMPFRMX</i>	FLAGGED AS TOPCODED?
		<u>REPORTED</u>	<u>AFTER TOPCODING</u>	<u>VALUE</u>	
CU 1:	Member 1	\$95,000	\$95,000	170,000	No
	Member 2	75,000	75,000		
CU 2:	Member 1	160,000	321,846	331,846	Yes
	Member 2	10,000	10,000		
CU 3:	Member 1	450,000	321,846	643,692	Yes
	Member 2	350,000	321,846		
CU 4:	Member 1	300,000	321,846	-113,154	Yes
	Member 2	-200,000	-435,000		

While CUs 1 and 2 each originally report \$100,000 in FSMPFRMX, topcoding is done only on the value reported by MEMI1 of CU2. Thus, the value for FSMPFRMX 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 SFMFRMX value (\$331,846) is higher than the amount that it reported (\$170,000). The case of CU4 demonstrates that the reported value for FSMPFRMX can be positive, while the topcoded value can be negative. The reverse can also occur.

A. Member Characteristics and Income File (MEMI)

1. Direct topcoding

The following table lists the MEMI file variables that are subject to topcoding. The table also shows the critical values and topcode values associated with each variable listed. For multiple imputed income variables, it is possible for an upper topcode value to be less than the upper critical value or for a lower topcode value to be greater than the lower critical value.

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
AGE	Age of member	82	-	87	-
AMTFED	Amount of federal tax deducted from last pay	1,235	-	5,779	-
ANFEDTX	Annual amount federal tax deducted from pay	26,390	-	49,640	-
ANFEDTXM	Annual amount federal tax deducted from pay	26,390	-	49,877	-
ANGOVRTM	Annual amount government retirement	9,893	-	12,543	-
ANGOVRTX	Annual amount government retirement	9,893	-	12,347	-
ANPRVPM	Annual amount private pensions	20,077	-	29,128	-
ANPRVPNX	Annual amount private pensions	20,077	-	29,513	-
ANRRDEDM	Annual amount Railroad retirement	6,800	-	10,427	-
ANRRDEDX	Annual amount Railroad retirement	6,800	-	9,980	-
ANSLTX	Annual amount state and local income tax	9,289	-	15,048	-
ANSLTXM	Annual amount state and local income tax	9,289	-	15,258	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
GOVRETX	Government retirement deducted from last pay	965	-	3,787	-
GROSPAYX	Amount of last gross pay	6,601	-	17,881	-
INDRETX	Self-employment retirement plan contributions	27,000	-	63,624	-
JSSDEDX	Estimated annual Social Security contribution	9,429	-	13,899	-
JSSDEDXM	Estimated annual Social Security contribution	9,429	-	10,618	-
PRIVPENX	Private pension deducted from last pay	1,900	-	32,554	-
RRRDEDX	Railroad retirement deducted from last pay	290	-	469	-
SALARYX	Wage and salary income received before deductions	150,000	-	265,049	-
SALARYXM	Wage and salary income received before deductions	150,000	-	214,948	-
SEMPFRMM	AMT OF SELF EMPLOYMENT INCOME OR LOSS	150,000	(170,000)	135,711	(435,000)
SEMPFRMX	AMT OF SELF EMPLOYMENT INCOME OR LOSS	150,000	(170,000)	321,846	(435,000)
SLFEMPSM	Self-employment Social Security contribution	19,957	-	13,451	-
SLFEMPSS	Self-employment Social Security contribution	19,957	-	25,467	-
SLTAXX	State and local income tax deducted last pay	393	-	674	-

2. Special suppression for MEMI file variables

In some scenarios it is possible to deduce revealing information because it is built into a formula. For example, the five MEMI 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. The estimated annual Federal income tax deduction from pay is calculated as

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

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, the original value of SALARYXM can be recalculated by inserting the non-topcoded values into equation (2) and solving for SALARYXM. 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 the specific rules that CE applies 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 ANPRVPNM, GROSPAYX, and PRIVPENX are not, then the values for ANPRVPNM, 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 MEMI file variables occurs with the original (pre-income imputation) variables that correspond to the variables noted above (SALARYX, ANFEDTX).

B. 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 the [EXPN section](#). 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.

C. Income File (ITBI)

The ITBI variable COST is subject to topcoding for some UCCs. CE does not use the conventional method but topcodes the variable COST with three steps:

1. Topcode variables in the FMLI files.
2. Map topcoded variables to their appropriate UCC.
3. If the variable was topcoded in the FMLI files, the associated UCC will have a topcoded COST value and the value of COST_ is set to 'T.'

All topcoded FMLI variables are listed in [FMLI section](#) of this documentation. To obtain the concordance file that lists what FMLI variables are mapped to which UCC, contact the Consumer Expenditure Survey.

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

D. Detailed Expenditure Files (EXPX)

CE topcodes the below EXPX file variables. The table also lists the critical values, the associated topcoded values, and the conditions that determine if CE topcodes a variable.

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
ADVMATX	Construction materials for job not yet started, renter	NA	7,000	-	97,375	-
DISPX	What was the selling price (trade-in value)?	OWNYD EQ '100' OR OWNYD EQ '200'	407,000	-	1,243,750	-
DISPX	What was the selling price (trade-in value)?	OWNYD EQ '300'	285,000	-	373,500	-
DISPX	What was the selling price (trade-in value)?	OWNYD EQ '400' OR OWNYD EQ '500'	48,000	-	370,000	-
INTCHGX	Cable/Satellite - cont expnesne	INTSERV EQ '100' AND INTMO EQ '13'	214	-	263	-
INTCHGX	Cable/Satellite	INTSERV EQ '100' AND INTMO NE '13'	317	-	382	-
INTCHGX	Internet services - cont expenses	INTSERV EQ '200' AND INTMO EQ '13'	115	-	162	-
INTCHGX	Internet services	INTSERV EQ '200' AND INTMO NE '13'	180	-	224	-
JCPIRE1X	CPI quarterly rental equivalence adjusted for ownership percentage	OWNYI EQ '100'	9,600	-	13,929	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
JCPIRE1X	CPI quarterly rental equivalence adjusted for ownership percentage	OWNYI EQ '300'	15,000	-	27,938	-
JCPIRE2X	CPI quarterly rental equivalence adjusted for ownership percentage	OWNYI EQ '300'	4,154	-	5,914	-
JCPIRE3X	CPI quarterly rental equivalence adjusted for ownership percentage	OWNYI EQ '300'	2,025	-	5,656	-
JEDUCNET	Net amount paid for educational expenses (housing) - cont expn	EDUC_AY EQ '310' AND EDMONTHA EQ '13'	1,300	-	1,649	-
JEDUCNET	Net amount paid for educational expenses (housing)	EDUC_AY EQ '310' AND EDMONTHA NE '13'	8,000	-	9,696	-
JFEETOTX	JX1FETOT Repayment of loans owned by cooperative, regular fee	REGFEECR EQ '01000' AND (OWNYI EQ '100' OR OWNYI EQ '200')	2,105	-	3,638	-
JFEETOTX	JX1FETOT Repayment of loans owned by cooperative, regular fee	REGFEECR EQ '01000' AND (OWNYI EQ '300')	0	-	1,149	-
JLABOR1X	CONST AND ADDITIONS	(CRMCODEB='100' CRMCODEB='110')	50,000	-	79,250	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
JLABOR1X	ROOM FINISHING/REMODELING	(CRMCODEB='120' CRMCODEB='130')	23,491	-	33,089	-
JLABOR1X	LANDSCAP/OUTDOOR BUILDING REPAIR/PAINTING	('140'<=CRMCODEB AND CRMCODEB<='190')	11,000	-	17,807	-
JLABOR1X	PLUMBING/ELECTRICAL/HEAT/AC	('200'<=CRMCODEB AND CRMCODEB<='220')	10,928	-	16,026	-
JLABOR1X	FLOORING/CARPETING	('230'<=CRMCODEB AND CRMCODEB<='232')	2,500	-	3,500	-
JLABOR1X	INSULATION, ROOFING, SIDING, MASONRY, WINDOWS	('240'<=CRMCODEB AND CRMCODEB<='290')	13,600	-	17,039	-
JLABOR1X	OTHER REPAIR AND COMBINED CODES	(CRMCODEB='300' CRMCODEB='310')	10,428	-	22,667	-
JLABOR2X	CONST AND ADDITIONS	(CRMCODEB='100' CRMCODEB='110')	27,450	-	80,818	-
JLABOR2X	ROOM FINISHING/REMODELING	(CRMCODEB='120' CRMCODEB='130')	23,491	-	35,667	-
JLABOR2X	LANDSCAP/OUTDOOR BUILDING REPAIR/PAINTING	('140'<=CRMCODEB AND CRMCODEB<='190')	15,000	-	22,222	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
JLABOR2X	PLUMBING/ELECTRICAL/HEAT/AC	('200'<=CRMCODEB AND CRMCODEB<='220')	10,000	-	12,356	-
JLABOR2X	FLOORING/CARPETING	('230'<=CRMCODEB AND CRMCODEB<='232')	2,500	-	4,017	-
JLABOR2X	INSULATION, ROOFING, SIDING, MASONRY, WINDOWS	('240'<=CRMCODEB AND CRMCODEB<='290')	12,267	-	22,835	-
JLABOR2X	OTHER REPAIR AND COMBINED CODES	(CRMCODEB='300' CRMCODEB='310')	7,600	-	9,000	-
JLABOR3X	CONST AND ADDITIONS	(CRMCODEB='100' CRMCODEB='110')	46,000	-	73,686	-
JLABOR3X	ROOM FINISHING/REMODELING	(CRMCODEB='120' CRMCODEB='130')	42,000	-	77,167	-
JLABOR3X	LANDSCAP/OUTDOOR BUILDING REPAIR/PAINTING	('140'<=CRMCODEB AND CRMCODEB<='190')	16,000	-	32,865	-
JLABOR3X	PLUMBING/ELECTRICAL/HEAT/AC	('200'<=CRMCODEB AND CRMCODEB<='220')	12,400	-	19,992	-
JLABOR3X	FLOORING/CARPETING	('230'<=CRMCODEB AND CRMCODEB<='232')	1,500	-	3,105	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
JLABOR3X	INSULATION, ROOFING, SIDING, MASONRY, WINDOWS	('240'<=CRMCODEB AND '290')	14,000	-	21,100	-
JLABOR3X	OTHER REPAIR AND COMBINED CODES	(CRMCODEB='300' CRMCODEB='310')	7,228	-	12,600	-
JLCPRINX	Estimated amount of principal paid on home equity loan during reference period	OWNYH EQ '100' OR OWNYH EQ '200'	7,904	(1,798)	33,379	(2,273)
JLCPRINX	Estimated amount of principal paid on home equity loan during reference period	OWNYH EQ '300'	888	-	37,421	-
JRNTEQ2X	Monthly rental equivalence of owned home	NA	6,200	-	110,667	-
JRNTEQ3X	Monthly rental equivalence of owned home	NA	26,000	-	32,988	-
LDGCOSTX	Cost for hotels, motels, cottages, trailer camps, or other lodging including taxes and tips	NA	2,200	-	3,749	-
MEDPMTX	Eye examinations, treatment, or surgery	MEDPCARY EQ '110'	500	-	1,695	-
MEDPMTX	Dental care	MEDPCARY EQ '200'	1,869	-	3,403	-
MEDPMTX	Hospital room or hospital services	MEDPCARY EQ '330'	3,000	-	6,536	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
MEDPMTX	Services by medical professionals other than physician	MEDPCARY EQ '410'	657	-	1,752	-
MEDPMTX	Physician services	MEDPCARY EQ '420'	560	-	1,446	-
MEDPMTX	Lab tests or x-rays	MEDPCARY EQ '510'	828	-	2,246	-
MEDPMTX	Care in convalescent or nursing home	MEDPCARY EQ '520'	8,260	-	9,401	-
MEDPMTX	Other medical care	MEDPCARY EQ '530'	1,200	-	2,812	-
MEDPMTX	Rental of supportive or convalescent equipment	MEDPCARY EQ '630'	34	-	78	-
MEDPMTX	Purchase of supportive or convalescent equipment	MEDPCARY EQ '640'	300	-	401	-
MEDPMTX	Rental of medical or surgical equipment for general use	MEDPCARY EQ '650'	65	-	535	-
MEDPMTX	Purchase of medical or surgical equipment for general use	MEDPCARY EQ '660'	592	-	1,150	-
MEDRMBX	Eye examinations, treatment, or surgery	MEDRCARY EQ '110'	500	-	1,180	-
MEDRMBX	Dental care	MEDRCARY EQ '200'	1,400	-	1,610	-
MEDRMBX	Hospital room or hospital services	MEDRCARY EQ '330'	1,943	-	13,300	-
MEDRMBX	Services by medical professionals other than physician	MEDRCARY EQ '410'	650	-	1,066	-
MEDRMBX	Physician services	MEDRCARY EQ '420'	700	-	2,333	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
MEDRMBX	Lab tests or x-rays	MEDRCARY EQ '510'	500	-	905	-
MEDRMBX	Care in convalescent or nursing home	MEDRCARY EQ '520'	7,802	-	9,334	-
MEDRMBX	Other medical care	MEDRCARY EQ '530'	725	-	1,900	-
MISCEXPX	Amount of the payment by CU for occupational expenses	MISCCODE EQ '380' AND MISC MO EQ '13'	200	-	449	-
MISCEXPX	Amount of the payment by CU for occupational expenses	MISCCODE EQ '380' AND MISC MO NE '13'	818	-	1,347	-
MRTPMGTG	Loan payment	(LOANTYPE EQ '2')	1,977	-	3,334	-
MRTPMTX	Mortgage payment, including escrow	(LOANTYPE EQ '1')	3,484	-	5,124	-
NETPURX	Amount paid for boat with motor	VEHICYB EQ '160'	84,400	-	176,320	-
ORGMRTG	What was the amount of the lump sum home equity loan when you obtained it?	(OWNYGEQ '100' OR OWNYGEQ '200') AND (LOANTYPE EQ '2')	225,953	-	309,156	-
ORGMRTG	What was the amount of the lump sum home equity loan when you obtained it?	(OWNYGEQ '300') AND (LOANTYPE EQ '2')	19,301	-	261,546	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
ORGMRTX	What was the amount of the mortgage when you obtained it excluding any interest?	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	438,115	-	604,198	-
ORGMRTX	What was the amount of the mortgage when you obtained it excluding any interest?	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	360,000	-	535,755	-
ORGMRTX	What was the amount of the mortgage when you obtained it excluding any interest?	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	375,000	-	401,400	-
OWN_PURX	What was the total price paid for the property not including closing costs?	OWNYB EQ '100' OR OWNYB EQ '200'	600,000	-	897,500	-
OWN_PURX	What was the total price paid for the property not including closing costs?	OWNYB EQ '300'	367,407	-	465,033	-
OWN_PURX	What was the total price paid for the property not including closing costs?	OWNYB EQ '400' OR OWNYB EQ '500'	104,000	-	176,500	-
PAYMT1G	Amount of lump sum payment on home equity loan in first month of the reference period	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	1,452	-	1,920	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
PAYMT1X	Amount of lump sum payment on mortgage in first month of the reference period	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	3,718	-	6,881	-
PAYMT1X	Amount of lump sum payment on mortgage in first month of the reference period	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	990	-	1,487	-
PAYMT1X	Amount of lump sum payment on mortgage in first month of the reference period	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,140	-	1,717	-
PAYMT2G	Amount of lump sum payment on home equity loan in second month of the reference period	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	1,472	-	1,919	-
PAYMT2X	Amount of lump sum payment on mortgage in second month of the reference period	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	3,718	-	6,752	-
PAYMT2X	Amount of lump sum payment on mortgage in second month of the reference period	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	990	-	1,487	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
PAYMT2X	Amount of lump sum payment on mortgage in second month of the reference period	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,140	-	1,717	-
PAYMT3G	Amount of lump sum payment on home equity loan in third month of the reference period	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	1,488	-	2,021	-
PAYMT3X	Amount of lump sum payment on mortgage in third month of the reference period	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	3,600	-	6,491	-
PAYMT3X	Amount of lump sum payment on mortgage in third month of the reference period	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	1,050	-	1,778	-
PAYMT3X	Amount of lump sum payment on mortgage in third month of the reference period	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,140	-	1,717	-
PROPVALX	About how much do you think this property would sell for on today's market?	OWNYI EQ '100'	800,000	-	1,489,500	-
PROPVALX	About how much do you think this property would sell for on today's market?	OWNYI EQ '300'	1,000,000	-	1,733,333	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
PRPVAL2X	About how much do you think this property would sell for on today's market?	NA	100,000	-	214,444	-
QADCAB1X	Cable/Satellite	NA	185	-	213	-
QADCAB2X	Cable/Satellite	NA	189	-	217	-
QADCAB3X	Cable/Satellite	NA	189	-	220	-
QADFUL1X	FUEL OIL	UTILY EQ '130'	1,894	-	2,234	-
QADFUL1X	BOTTLED OR TANKED GAS	UTILY EQ '150'	1,671	-	1,813	-
QADFUL1X	OTHER FUELS	UTILY EQ '180'	625	-	1,025	-
QADFUL1X	TRASH/GARBAGE COLL	UTILY EQ '210'	158	-	224	-
QADFUL1X	WATER SOFTENING	UTILY EQ '270'	238	-	425	-
QADFUL1X	SEPTIC TANK CLEANING	UTILY EQ '280'	350	-	433	-
QADFUL1X	ELECTRICITY 1-2 MONTHS	UTILY EQ '100' AND BLPERIOD IN ('1','2','3','A','B')	480	-	649	-
QADFUL1X	NATURAL/UTILITY GAS 1-2 MONTHS	UTILY EQ '110' AND BLPERIOD IN ('1','2','3','A','B')	374	-	519	-
QADFUL1X	PIPED-IN WATER/SEWERAGE 1-2 MONTHS	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('1','2','3','A','B')	260	-	506	-
QADFUL1X	ELECTRICITY ANNUAL/OTH	UTILY EQ '100' AND BLPERIOD IN ('4','5','F')	60	-	194	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QADFUL1X	NATURAL/UTILITY GAS ANNUAL/OTH	UTILY EQ '110' AND BLPERIOD IN ('4','5','F')	650	-	1,214	-
QADFUL1X	PIPED-IN WATER/SEWERAGE ANNUAL/OTH	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('4','5','F')	300	-	354	-
QADFUL2X	FUEL OIL	UTILY EQ '130'	2,030	-	2,628	-
QADFUL2X	BOTTLED OR TANKED GAS	UTILY EQ '150'	1,478	-	1,981	-
QADFUL2X	OTHER FUELS	UTILY EQ '180'	490	-	715	-
QADFUL2X	TRASH/GARBAGE COLL	UTILY EQ '210'	150	-	215	-
QADFUL2X	WATER SOFTENING	UTILY EQ '270'	268	-	633	-
QADFUL2X	SEPTIC TANK CLEANING	UTILY EQ '280'	400	-	1,350	-
QADFUL2X	ELECTRICITY 1-2 MONTHS	UTILY EQ '100' AND BLPERIOD IN ('1','2','3','A','B')	491	-	650	-
QADFUL2X	NATURAL/UTILITY GAS 1-2 MONTHS	UTILY EQ '110' AND BLPERIOD IN ('1','2','3','A','B')	354	-	477	-
QADFUL2X	PIPED-IN WATER/SEWERAGE 1-2 MONTHS	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('1','2','3','A','B')	234	-	345	-
QADFUL2X	ELECTRICITY ANNUAL/OTH	UTILY EQ '100' AND BLPERIOD IN ('4','5','F')	168	-	252	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QADFUL2X	NATURAL/UTILITY GAS ANNUAL/OTH	UTILY EQ '110' AND BLPERIOD IN ('4','5','F')	772	-	911	-
QADFUL2X	PIPED-IN WATER/SEWERAGE ANNUAL/OTH	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('4','5','F')	230	-	2,100	-
QADFUL3X	FUEL OIL	UTILY EQ '130'	2,100	-	2,604	-
QADFUL3X	BOTTLED OR TANKED GAS	UTILY EQ '150'	1,413	-	2,269	-
QADFUL3X	OTHER FUELS	UTILY EQ '180'	500	-	748	-
QADFUL3X	TRASH/GARBAGE COLL	UTILY EQ '210'	154	-	228	-
QADFUL3X	WATER SOFTENING	UTILY EQ '270'	168	-	229	-
QADFUL3X	SEPTIC TANK CLEANING	UTILY EQ '280'	500	-	1,035	-
QADFUL3X	ELECTRICITY 1-2 MONTHS	UTILY EQ '100' AND BLPERIOD IN ('1','2','3','A','B')	500	-	714	-
QADFUL3X	NATURAL/UTILITY GAS 1-2 MONTHS	UTILY EQ '110' AND BLPERIOD IN ('1','2','3','A','B')	378	-	507	-
QADFUL3X	PIPED-IN WATER/SEWERAGE 1-2 MONTHS	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('1','2','3','A','B')	252	-	331	-
QADFUL3X	ELECTRICITY ANNUAL/OTH	UTILY EQ '100' AND BLPERIOD IN ('4','5','F')	150	-	1,228	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QADFUL3X	NATURAL/UTILITY GAS ANNUAL/OTH	UTILY EQ '110' AND BLPERIOD IN ('4','5','F')	750	-	843	-
QADFUL3X	PIPED-IN WATER/SEWERAGE ANNUAL/OTH	(UTILY EQ '200' UTILY EQ '220') AND BLPERIOD IN ('4','5','F')	325	-	452	-
QADINE1X	Internet services	NA	140	-	168	-
QADINE2X	Internet services	NA	125	-	167	-
QADINE3X	Internet services	NA	128	-	164	-
QADPSP2X	CONST AND ADDITIONS	(CRMCODEB='100' CRMCODEB='110')	2,000	-	6,400	-
QADPSP2X	ROOM FINISHING/REMODELING	(CRMCODEB='120' CRMCODEB='130')	5,000	-	10,250	-
QADPSP2X	LANDSCAP/OUTDOOR BUILDING REPAIR/PAINTING	('140'<=CRMCODEB AND CRMCODEB<='190')	1,977	-	2,399	-
QADPSP2X	PLUMBING/ELECTRICAL/HEAT/AC	('200'<=CRMCODEB AND CRMCODEB<='220')	2,000	-	3,067	-
QADPSP2X	FLOORING/CARPETING	('230'<=CRMCODEB AND CRMCODEB<='232')	600	-	984	-
QADPSP2X	INSULATION, ROOFING, SIDING, MASONRY, WINDOWS	('240'<=CRMCODEB AND CRMCODEB<='290')	2,000	-	4,763	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QADPSP2X	OTHER REPAIR AND COMBINED CODES	(CRMCODEB='300' CRMCODEB='310')	1,259	-	1,650	-
QADPSP3X	CONST AND ADDITIONS	(CRMCODEB='100' CRMCODEB='110')	4,000	-	27,250	-
QADPSP3X	ROOM FINISHING/REMODELING	(CRMCODEB='120' CRMCODEB='130')	10,000	-	13,444	-
QADPSP3X	LANDSCAP/OUTDOOR BUILDING REPAIR/PAINTING	('140'<=CRMCODEB AND CRMCODEB<='190')	3,800	-	6,033	-
QADPSP3X	PLUMBING/ELECTRICAL/HEAT/AC	('200'<=CRMCODEB AND CRMCODEB<='220')	2,000	-	3,695	-
QADPSP3X	FLOORING/CARPETING	('230'<=CRMCODEB AND CRMCODEB<='232')	403	-	1,413	-
QADPSP3X	INSULATION, ROOFING, SIDING, MASONRY, WINDOWS	('240'<=CRMCODEB AND CRMCODEB<='290')	3,300	-	6,833	-
QADPSP3X	OTHER REPAIR AND COMBINED CODES	(CRMCODEB='300' CRMCODEB='310')	3,000	-	4,989	-
QADPSPLX	CONST AND ADDITIONS	(CRMCODEB='100' CRMCODEB='110')	5,000	-	72,772	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QADPSPLX	ROOM FINISHING/REMODELING	(CRMCODEB='120' CRMCODEB='130')	7,500	-	11,160	-
QADPSPLX	LANDSCAP/OUTDOOR BUILDING REPAIR/PAINTING	('140'<=CRMCODEB AND CRMCODEB<='190')	2,799	-	3,886	-
QADPSPLX	PLUMBING/ELECTRICAL/HEAT/AC	('200'<=CRMCODEB AND CRMCODEB<='220')	1,765	-	3,505	-
QADPSPLX	FLOORING/CARPETING	('230'<=CRMCODEB AND CRMCODEB<='232')	220	-	1,205	-
QADPSPLX	INSULATION, ROOFING, SIDING, MASONRY, WINDOWS	('240'<=CRMCODEB AND CRMCODEB<='290')	1,800	-	3,082	-
QADPSPLX	OTHER REPAIR AND COMBINED CODES	(CRMCODEB='300' CRMCODEB='310')	2,500	-	3,753	-
QADPTAX	What was the total price paid for the property not including closing costs?	OWNYB EQ '100' OR OWNYB EQ '200'	10,000	-	15,480	-
QADPTAX	What was the total price paid for the property not including closing costs?	OWNYB EQ '300'	7,300	-	11,902	-
QADPTAX	What was the total price paid for the property not including closing costs?	OWNYB EQ '400' OR OWNYB EQ '500'	4,500	-	6,919	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QADRSP2X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	160	-	301	-
QADRSP3X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	250	-	656	-
QADRSP4X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	300	-	780	-
QADRSP5X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	350	-	900	-
QADRSP6X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	400	-	1020	-
QADRSP7X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	450	-	1140	-
QADRSP8X	RENTED SUPPLIES FOR CONST/REPAIR/MAINT	NA	500	-	1260	-
QBLNCM1G	Principal balance outstanding at beginning of month, 3 months ago	('100' LE OWNYG LE '500') AND (LOANTYPE EQ '2')	200,000	-	231,876	-
QBLNCM1X	Principal balance outstanding at beginning of month 3 months ago	('100' LE OWNYF LE '500') AND (LOANTYPE EQ '1')	399,923	-	552,549	-
QBLNCM2G	Principal balance outstanding at beginning of month, 2 months ago	('100' LE OWNYG LE '500') AND (LOANTYPE EQ '2')	200,000	-	229,892	-
QBLNCM2X	Principal balance outstanding at beginning of month 2 months ago	('100' LE OWNYF LE '500') AND (LOANTYPE EQ '1')	399,573	-	551,756	-
QBLNCM3G	Principal balance outstanding at beginning of month, 1 month ago	('100' LE OWNYG LE '500') AND (LOANTYPE EQ '2')	200,000	-	227,896	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QBLNCM3X	Principal balance outstanding at beginning of month 1 month ago	('100' LE OWNYP LE '500') AND (LOANTYPE EQ '1')	399,221	-	551,375	-
QHI3MCX	Dental Insurance	HHICODE EQ '4' AND HHISPECT IN ('1')	1,196	-	2,004	-
QHI3MCX	Vision Insurance	HHICODE EQ '4' AND HHISPECT IN ('2')	1,650	-	2,488	-
QHI3MCX	PrscripDrug/Other/DK	HHICODE EQ '4' AND HHISPECT IN ('3','4','5','6','B','F','G')	4,284	-	4,965	-
QHI3MCX	Health Insurance HMO/FFS/MEDSUP, COV<= 1, INDIVIDUAL	HHICODE NE '4' AND HHICOVQ <= 1 AND HHIGROUP IN ('1')	3,005	-	8,602	-
QHI3MCX	Health Insurance HMO/FFS/MEDSUP, COV<= 1, GROUP	HHICODE NE '4' AND HHICOVQ <= 1 AND HHIGROUP IN ('2' '3')	2,772	-	5,836	-
QHI3MCX	Health Insurance HMO/FFS/MEDSUP, COV> 1, INDIVIDUAL	HHICODE NE '4' AND HHICOVQ > 1 AND HHIGROUP IN ('1')	8,208	-	11,392	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QHI3MCX	Health Insurance HMO/FFS/MEDSUP, COV> 1, GROUP	HHICODE NE '4' AND HHICOVQ > 1 AND HHIGROUP IN ('2' '3')	5,870	-	9,263	-
QLMPSUMX	Amount paid for mortgage in special or lump sum payments during reference period	OWNYI EQ '100' OR OWNYI EQ '200'	5,878	-	33,196	-
QLMPSUMX	Amount paid for mortgage in special or lump sum payments during reference period	OWNYI EQ '300'	1,500	-	9,000	-
QLR3MCMX	Amount paid for ground or land rent, adjusted for business	OWNYI EQ '100' OR OWNYI EQ '200'	2,616	-	13,673	-
QLR3MCMX	Amount paid for ground or land rent, adjusted for business	OWNYI EQ '300'	3,500	-	11,765	-
QPRINM1G	Amount of principal paid during first month of reference period	(OWNYI EQ '100' OR OWNYI EQ '200') AND (LOANTYPE EQ '2')	975	-	1,381	-
QPRINM1G	Amount of principal paid during first month of reference period	(OWNYI EQ '300') AND (LOANTYPE EQ '2')	211	-	4,423	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QPRINM1X	Amount of principal paid during first month of reference period	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	1,125	-	1,631	-
QPRINM1X	Amount of principal paid during first month of reference period	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	965	-	1,483	-
QPRINM1X	Amount of principal paid during first month of reference period	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,353	-	1,940	-
QPRINM2G	Amount of principal paid during second month of reference period	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	979	-	1,389	-
QPRINM2G	Amount of principal paid during second month of reference period	(OWNYG EQ '300') AND (LOANTYPE EQ '2')	212	-	4,441	-
QPRINM2X	Amount of principal paid during second month of reference period	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	1,134	-	1,642	-
QPRINM2X	Amount of principal paid during second month of reference period	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	970	-	1,489	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
QPRINM2X	Amount of principal paid during second month of reference period	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,359	-	1,948	-
QPRINM3G	Amount of principal paid during third month of reference period	(OWNYG EQ '100' OR OWNYG EQ '200') AND (LOANTYPE EQ '2')	983	-	1,397	-
QPRINM3G	Amount of principal paid during third month of reference period	(OWNYG EQ '300') AND (LOANTYPE EQ '2')	213	-	4,460	-
QPRINM3X	Amount of principal paid during third month of reference period	(OWNYF EQ '100' OR OWNYF EQ '200') AND (LOANTYPE EQ '1')	1,134	-	1,641	-
QPRINM3X	Amount of principal paid during third month of reference period	(OWNYF EQ '300') AND (LOANTYPE EQ '1')	974	-	1,477	-
QPRINM3X	Amount of principal paid during third month of reference period	(OWNYF EQ '400' OR OWNYF EQ '500') AND (LOANTYPE EQ '1')	1,059	-	1,784	-
QRT3MCMX	Rental payments made in reference period adjusted for business and rooms rented to others	NA	6,027	-	8,488	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
RNTEQVX	Monthly rental equivalence of owned home	OWNYI EQ '100'	3,200	-	4,638	-
RNTEQVX	Monthly rental equivalence of owned home	OWNYI EQ '300'	6,500	-	12,000	-
SALEX	How much did you sell it for?	VEHICYC EQ '160'	4,000	-	14,833	-
TELCEL1X	Cell phone service	NA	357	-	427	-
TELCEL2X	Cell phone service	NA	360	-	431	-
TELCEL3X	Cell phone service	NA	360	-	432	-
TELRES1X	Residential phone service	NA	250	-	334	-
TELRES2X	Residential phone service	NA	250	-	310	-
TELRES3X	Residential phone service	NA	250	-	324	-
TOTOWED	Estimated amount of principal paid on home equity loan during reference period	OWNYH EQ '100' OR OWNYH EQ '200'	240,516	-	339,573	-
TOTOWED	Estimated amount of principal paid on home equity loan during reference period	OWNYH EQ '300'	100,000	-	180,000	-
TOTYUPDX	Amount of (lodging) expense not covered by a business, employer, or other non-CU member (for trips funded by non-CU member)	TOTYUPDY EQ '130'	1,524	-	3,024	-

Variable	Description	Condition	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
TRNONCUX	Amount of the (lodging) expense paid for non CU member	TRNONCUY EQ '130'	2,379	-	2,519	-

III. Diary Survey

A. CU Characteristics and Income File (FMLD)

1. Directly topcoded

The following table shows the FMLD file variables that are subject to topcoding and their associated critical values and topcode values. For multiple imputed income variables, it is possible for an upper topcode value to be less than the upper critical value or for a lower topcode value to be greater than the lower critical value.

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
ADDFEDX	Amount of federal tax paid by any CU member in addition to	32,000	-	86,300	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
	that withheld from earnings in past 12 months				
ADDOTHX	Amount of other taxes paid which were not reported elsewhere during past 12 months	6,500	-	23,133.33	-
ADDSTAX	Amount of state and local tax paid in addition to that withheld from earnings during past 12 months	8,000	-	22,930.43	-
FEDREFX	Amount of refund received from federal income tax	9,000	-	37,834.03	-
INTRDVX	Amount of income received from interest and dividends, imputation iterations	23,000	-	45,026.67	-
INTRDVXM	Amount of income received from interest and dividends, imputation iterations	23,000	-	29,548.58	-
LUMPX	Lump sum payments from insurance, estates, trusts, royalties, child support, alimony, prizes or games of chance, or from people who are not on your list	160,000	-	500,000	-
NETRENTM	Amount of income received from net rental income or loss	75,000	-20,000	87,980.26	-23,832.54
NETRENTX	Amount of income received from net rental income or loss	75,000	-20,000	134,093.20	-78,000
OCCEXPX	Amount of payment by CU for occupational expenses such as union dues, tools, uniforms, business or professional association dues, licenses or permits in past 12 months	6,041	-	44,562.07	-
OTHINX	Amount received in other money income including	37,000	-	96,307.69	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
	money received from care of foster children, cash scholarships and fellowships, or stipends not based on working				
OTHINXM	Amount received in other money income including money received from care of foster children, cash scholarships and fellowships, or stipends not based on working	37,000	-	69,090.26	-
OTHREGX	Amount of income received from any other source such as Veteran's Administration (VA) payments, unemployment compensation, child support, or alimony, imputation iterations	26,000	-	37,237.40	-
OTHREGXM	Amount of income received from any other source such as Veteran's Administration (VA) payments, unemployment compensation, child support, or alimony, imputation iterations	26,000	-	25,522.34	-
RETSURVM	Amount of income received from retirement, survivor, or disability pensions	72,000	-	63,526.93	-
RETSURVX	Amount of income received from retirement, survivor, or disability pensions	72,000	-	86,956.46	-
ROYESTX	Amount of income received from royalty income or income from estates and trusts	160,000	-	312,000	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
ROYESTXM	Amount of income received from royalty income or income from estates and trusts	160,000	-	282,052.53	-
STATREFX	Amount of refund received from state and local income tax	2,331	-	46,33.18	-

2. Indirectly topcoded

Some income variables that are subject to topcoding are constructed by summing up the values of “lower level” component variables from the MEMD or FMLD. 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. See the descriptions of each variable in the diary data dictionary for a list of component variables.

Variable	Description
FSMPFRXM FSMPFRX1-5 FSMPFRMX	Amount of income received from self-employment income
FFEDTXX	Amount of Federal tax deducted from last pay, annualized for all CU members
FGVXM, FGVX1-5 FGVX	Amount of government retirement deducted from last pay, annualized for all CU members
FINCAFTM FINCAFT1-5 FINCAFTX	Amount of CU income after taxes
FINCBEFM	Amount of CU income before taxes

Variable	Description
FINCBEF1-5 FINCBEFX	
FIRAX	Amount of money placed in individual retirement plan
FJSSDEDM FJSSDED1-5 FJSSDEDX	Estimated amount of annual Social Security contribution
FPVTXM FPVTX	Amount of private pension fund deducted from last pay, annualized for all CU members
FRRXM FRRX	Amount of Railroad Retirement deducted from last pay, annualized for all CU members
FSTATXXM FSTATXX1-5 FSTATXX	Amount of State and local income taxes deducted from last pay, annualized for all CU members
FWAGEXM FWAGEX1-5 FWAGEX	Amount received from wage and salary income before deduction
OTHRECX	Amount of other money receipts excluded from family income
PERSTAXM PERSTAX1-5 PERSTAX	Amount of personal taxes paid

For examples see the [Interview Survey examples](#).

B. Member Characteristics and Income File (MEMD)

The following table lists MEMD file variables that are subject to topcoding. The table also shows the critical values and topcode values associated with each variable listed. For multiple imputed income variables, it is possible for an upper topcode value to be less than the upper critical value or for a lower topcode value to be greater than the lower critical value.

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
AGE	Age of member	82	-	88	-
ANFEDTXM	Annual amount of Federal income tax deducted from pay	26,390	-	39,637.50	-
ANFEDTXX	Annual amount of Federal income tax deducted from pay	26,390	-	39,207.85	-
ANGVX	Annual amount of government retirement deducted from pay	9,893	-	16,018.17	-
ANGVXM	Annual amount of government retirement deducted from pay	9,893	-	16,018.17	-
ANPVTX	Annual amount of private pension fund deducted from pay	20,077	-	28,771.05	-
ANPVTXM	Annual amount of private pension fund deducted from pay	20,077	-	29,166.24	-
ANSTATXM	Annual amount of state and local income taxes deducted from pay	9,289	-	12,803.27	-
ANSTATXX	Annual amount of state and local income taxes deducted from pay	9,289	-	12,803.27	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
FEDTXX	Amount of Federal income tax deducted from last pay	1,235	-	2,889.71	-
GROSPAYX	Amount of last gross pay	6,601	-	10,810.96	-
GVX	Amount of government retirement deducted from last pay	965	-	3,962.50	-
IRAX	Amount of money placed in an individual retirement plan	27,000	-	53,107.44	-
JSSDEDX	Estimated annual Social Security contribution	9,429	-	13,536.91	-
JSSDEDXM	Estimated annual Social Security contribution	9,429	-	10,511.55	-
PVTX	Amount of private pension fund deducted from last pay	1,900	-	5,327.14	-
SEMPFRMM	Amount of self-employment income	135,000	-30,000	128,819.20	-25,648.62
SEMPFRMX	Amount of self-employment income	135,000	-30,000	266,818.18	-68,000
SLFEMPSM	Amount of self-employment Social Security contributions	19,957	-	14,706.52	-
SLFEMPSS	Amount of self-employment Social Security contributions	19,957	-	24,659.83	-
STATXX	Amount of state and local income taxes deducted from last pay	393	-	937.24	-
WAGEX	Amount received from wage and salary	150,000	-	250,778.89	-

Variable	Description	Upper Critical Value	Lower Critical Value	Upper Topcode Value	Lower Topcode Value
	income before deductions				
WAGEXM	Amount received from wage and salary income before deductions	150,000	-	199,461.89	-

Special suppression for MEMD file variables

The five MEMD file variables—FEDTXX, GVX, PVTX, RRX, and STATXX—describe deductions from the most recent pay. These variables are used in conjunction with GROSPAYX (amount of last gross pay) and WAGEXM (annual wage and salary income) to derive ANFEDTXM, ANGVXM, ANPVTXM, ANRRXM, and ANSTATXM, 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

$$(1) \text{ ANFEDTXM} = (\text{WAGEXM} (\text{FEDTXX}/\text{GROSPAYX})).$$

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

$$(2) \text{ WAGEXM} = (\text{ANFEDTXM} (\text{GROSPAYX}/\text{FEDTXX})).$$

In the above example, a problem with disclosure may arise when neither ANFEDTXM, GROSPAYX, nor FEDTXX (calculation components) are topcoded, *but WAGEXM is*. In this situation WAGEXM can be recalculated to obtain its original value by inserting the non-topcoded values into equation (2) and solving it. 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 WAGEXM is greater than the critical value but ANFEDTXM, GROSPAYX, and FEDTXX are not, then the values for ANFEDTXM, GROSPAYX, and FEDTXX are suppressed and their flag variables are assigned a value of 'T.'
- If WAGEXM is greater than the critical value but ANGVXM, GROSPAYX, and GVX are not, then the values for ANGVXM, GROSPAYX, and GVX are suppressed and their flag variables assigned a value of 'T.'
- If WAGEXM is greater than the critical value but ANPVTXM, GROSPAYX, and PVTX are not, then the values for ANPVTXM, GROSPAYX, and PVTX are suppressed and their flag variables assigned a value of 'T.'
- If WAGEXM is greater than the critical value but ANRRXM, GROSPAYX, and RRX are not, then the values for ANRRXM, GROSPAYX, and RRX are suppressed and their flag variables assigned a value of 'T.'
- If WAGEXM is greater than the critical value but ANSTATXM, GROSPAYX, and STATXX are not, then the values for ANSTATXM, GROSPAYX, and STATXX are suppressed and their flag variables assigned a value of 'T.'

The same special suppression for MEMD file variables occurs with the original (pre-income imputation) variables that correspond to the variables noted above (WAGEX, ANFEDTXX, etc.).

C. Detailed Expenditure File (EXPD)

The following table lists UCCs for which the EXPD variable COST is subject to topcoding as well as their associated critical values and topcode values (rounded to the nearest dollar). If the value of COST is greater (less) than the designated critical values for the above UCCs, COST is set to the topcode value and the associated flag variable, COST_, is set to 'T.'

Variable	Description	2014 Upper Critical Value	2014 Lower Critical Value	2014 Upper Topcode Value	2014 Lower Topcode Value
001000	Purchase price of stocks, bonds, mutual funds	162.75	-	223.21	-
009000	Mortgage payment including coop	3,356.41	-	4,124.46	-
210110	Rent of dwelling, includes parking fees	2,034.38	-	2,673.20	-
210210	Lodging away from home	651.6	-	1,054.88	-
210310	Housing for someone at school	433	-	895.44	-
220400	Purchase of property	93.94	-	92,770.31	-

Variable	Description	2014 Upper Critical Value	2014 Lower Critical Value	2014 Upper Topcode Value	2014 Lower Topcode Value
550320	Medical equipment for general use	99.97	-	137.66	-
550330	Supportive convalescent or medical equipment	80	-	112.22	-
560110	Physicians' services	246.49	-	561.31	-
560210	Dental services	1,172	-	2,263.40	-
560310	Eyecare services	198.4	-	555.44	-
560330	Lab tests and x-rays	140	-	165.93	-
560400	Service by professionals other than physicians	187.25	-	303.30	-
570000	Hospital care not specified	708.82	-	2,299.73	-
570220	Nursing or convalescent home care	1,688	-	5,115.67	-
570230	Other medical care service	150	-	243.41	-
570901	Rental of medical equipment	25	-	49.75	-

D. Income File (DTBD)

The DTBD variable AMOUNT is subject to topcoding for some UCCs. The AMOUNT variable is not topcoded by the conventional method of replacement with a topcode value. First, variables are topcoded in the FMLD files. Then those variables are mapped to their appropriate UCC. If the variable was topcoded in the FMLD files, then the associated UCC will have a topcoded AMOUNT value, and the value of AMOUNT_ is set to 'T.' All the FMLD variables that are topcoded are listed in [Section IV, A](#) of this documentation. To obtain the concordance file that lists what FMLD 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.

IV. State suppression for both surveys

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 must have a population of at least 100,000. STATE data were evaluated in conjunction with 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 FMLI 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.

States not listed are not in the CE sample.

The table below lists the code CE uses to identify the state, the type of suppression, and the name of the state.

Code	Type	State	Code	Type	State
01	D	Alabama	29		Missouri
02		Alaska	30	A	Montana
04		Arizona	31		Nebraska
05	A	Arkansas	32		Nevada
06	B	California	33		New Hampshire
08	B	Colorado	34		New Jersey
09		Connecticut	36	B	New York
10	C	Delaware	37	A	North Carolina
11		District of Columbia	39	B	Ohio
12		Florida	40		Oklahoma
13	F	Georgia	41	B	Oregon
15		Hawaii	42		Pennsylvania
16		Idaho	44		Rhode Island
17	B	Illinois	45		South Carolina
18	B	Indiana	46	A	South Dakota

Code	Type	State	Code	Type	State
20	B	Kansas	47	B	Tennessee
21		Kentucky	48	B	Texas
22		Louisiana	49		Utah
23	B	Maine	51	B	Virginia
24	D	Maryland	53		Washington
25		Massachusetts	54	B	West Virginia
26	B	Michigan	55	F	Wisconsin
27	C	Minnesota			
28	A	Mississippi			

- A STATE codes have been suppressed for *all* sampled CUs in that state.
- B STATE codes have been suppressed for *some* sampled CUs in that state.
- C STATE codes have either been re-coded for *all* observations or all strata¹ of observations from this state include “re-codes” from other states.
- D STATE codes have either been recoded for *some* observations from this state or at least one stratum¹ of observations from this state includes “re-codes” from other states.
- E 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 strata.¹
- F 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 stratum.¹

¹ A STATE stratum is a unique POPSIZE and BLS_URBN combination.