

2000 CONSUMER EXPENDITURE DIARY SURVEY  
PUBLIC USE MICRODATA  
DOCUMENTATION

February 15, 2002

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

## TABLE OF CONTENTS

I. INTRODUCTION.....	4
II. CHANGES FROM THE 1999 MICRODATA FILES.....	4
III. FILE INFORMATION.....	5
A. DATA SET NAMES.....	5
B. RECORD COUNTS PER QUARTER.....	6
C. DATA FLAGS.....	6
D. FILE NOTATION.....	7
E. DETAILED VARIABLE DESCRIPTIONS.....	7
1. CONSUMER UNIT CHARACTERISTICS AND INCOME FILE (FMLY).....	7
a. CU AND DIARY IDENTIFIERS.....	8
b. CU CHARACTERISTICS.....	9
c. CHARACTERISTICS OF REFERENCE PERSON AND SPOUSE.....	13
d. WORK EXPERIENCE OF REFERENCE PERSON AND SPOUSE.....	15
e. INCOME.....	17
f. OTHER MONEY RECEIPTS.....	20
g. TAXES.....	21
h. RETIREMENT AND PENSION DEDUCTIONS.....	23
i. FOOD STAMPS.....	24
j. FREE MEALS AND GROCERIES.....	25
k. HOUSING STRUCTURE.....	26
l. WEIGHTS.....	27
m. SUMMARY EXPENDITURE DATA.....	28
2. MEMBER CHARACTERISTICS AND INCOME FILE (MEMB).....	30
a. CU AND MEMBER IDENTIFIERS.....	31
b. CHARACTERISTICS OF MEMBERS.....	31
c. WORK EXPERIENCE OF MEMBERS.....	33
d. INCOME.....	35
e. TAXES.....	37
f. RETIREMENT AND PENSION DEDUCTIONS.....	38
3. DETAILED EXPENDITURES (EXPN) FILE.....	39
4. INCOME (DTAB) FILE.....	40
5. PROCESSING FILES.....	41
a. AGGregation file.....	41
b. LABEL file.....	41
c. UCC file.....	41
d. SAMPLE program file.....	42
IV. TOPCODING AND OTHER NONDISCLOSURE REQUIREMENTS.....	42
A. CU CHARACTERISTICS AND INCOME FILE (FMLY).....	42
B. MEMBER CHARACTERISTICS AND INCOME FILE (MEMB).....	45
C. DETAILED EXPENDITURE FILE (EXPN).....	47
D. INCOME FILE (DTAB).....	48
V. ESTIMATION PROCEDURES.....	49
A. DEFINITION OF TERMS.....	50
B. ESTIMATION OF TOTAL AND MEAN EXPENDITURES.....	51
C. ESTIMATION OF MEAN ANNUAL INCOME.....	52
VI. RELIABILITY STATEMENT.....	52
A. DESCRIPTION OF SAMPLING ERROR AND NONSAMPLING ERROR.....	52
B. ESTIMATING SAMPLING ERROR.....	53
1. VARIANCE ESTIMATION.....	53
2. STANDARD ERROR OF THE MEAN.....	54
3. STANDARD ERROR OF THE DIFFERENCE BETWEEN TWO MEANS.....	54
VII. MICRODATA VERIFICATION AND ESTIMATION METHODOLOGY.....	55
A. SAMPLE PROGRAM.....	56
B. OUTPUT.....	70
VIII. DESCRIPTION OF THE SURVEY.....	72

IX. DATA COLLECTION AND PROCESSING .....	72
A. BUREAU OF THE CENSUS ACTIVITIES .....	73
B. BUREAU OF LABOR STATISTICS ACTIVITIES .....	73
X. SAMPLING STATEMENT .....	73
A. SURVEY SAMPLE DESIGN .....	73
B. COOPERATION LEVELS .....	74
C. WEIGHTING.....	75
D. STATE IDENTIFIER.....	75
XI. INTERPRETING THE DATA .....	76
XII. APPENDIX 1--GLOSSARY .....	76
XIII. APPENDIX 2 -- UNIVERSAL CLASSIFICATION CODE (UCC) TITLES .....	77
A. EXPENDITURE UCC's ON EXPN FILE.....	77
B. INCOME AND RELATED UCC's ON DTAB FILE .....	89
XIV. APPENDIX 3 -- UCC AGGREGATION .....	90
XV. APPENDIX 4 -- FMLY AND MEMB VARIABLES ORDERED BY START POSITION.....	91
A. FMLY FILE .....	91
B. MEMB FILE.....	93
XVI. APPENDIX 5 -- PUBLICATIONS AND DATA RELEASES.....	95
XVII. INQUIRIES, SUGGESTIONS, AND COMMENTS.....	96

## 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 or CUs) of average expenditures in news releases, reports, and articles in the Monthly Labor Review. Tabulated CE data are also available on the Internet and by facsimile transmission (see Section XVI, Appendix 5). The microdata are available on CD-ROM as SAS data sets or ASCII text files.

These microdata files present detailed expenditure and income data for the Diary component of the CE for 2000. They include weekly expenditure (EXPN) and annual income (DTAB) files. The data in EXPN and DTAB files are categorized by a Universal Classification Code (UCC). The advantage of the EXPN and DTAB files is that with the data classified in a standardized format, the user may perform comparative expenditure (income) analysis with relative ease. The FMLY and MEMB files present data on the characteristics and demographics of CUs and CU members. The summary level expenditure and income information on the FMLY files permits the data user to link consumer spending, by general expenditure category, and household characteristics and demographics on one set of files.

Estimates of average expenditures in 2000 from the Diary survey, integrated with data from the Interview survey, are published in *Consumer Expenditures in 2000 Report 958 (2002)*. A list of recent publications containing data from the CE appears at the end of this documentation.

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, Diary Survey, 2000".

## II. CHANGES FROM THE 1999 MICRODATA FILES

### FMLY File

There were no changes to the FMLY file.

### MEMB File

There were no changes to the MEMB file.

### EXPN File

1) The following are EXPN file PUB\_FLAG value changes beginning in 2000Q1.

<u>UCC</u>	<u>New Pub Flag value</u>
320512	1
360120	1
360340	1
360901	1
370311	1
380311	1
380902	1
410120	1
410140	1
610120	1
620310	1
620320	1
650110	1
650210	1

### III. FILE INFORMATION

The microdata on the CD-ROM are available as SAS data sets or ASCII text files. The 2000 Diary release contains four sets of data files (FMLY, MEMB, EXPN, DTAB) and four processing files. The FMLY, MEMB, EXPN, and DTAB files are organized by the quarter of the calendar year in which the data were collected. There are four quarterly data sets for each of these files. The FMLY files contain CU characteristics, income, and summary level expenditures; the MEMB files contain member characteristics and income data; the EXPN files contain detailed weekly expenditures at the UCC level; and the DTAB files contain annual income data.

The four processing files enhance computer processing and tabulation of data, and provide descriptive information on item codes. The four processing files are: a sample table aggregation file (AGGD), a sample table label file (LABELD), a Universal Classification Codes file (UCCD), and a file (SAMPLD) containing the sample program (Section VII.A.) The processing files are further explained in Section III.E.5. PROCESSING FILES.

Note that the variable NEWID, the CU's identification number, is the common variable among files by which matching is done.

#### A. DATA SET NAMES

The file naming convention on the ASCII CD-ROM is as follows:  
(where "X" references the designated drive for your CD)

```
X:\DIARY00\FMLYD001.txt (Diary FMLY file for first quarter, 2000)
X:\DIARY00\MEMBD001.txt (Diary MEMB file for first quarter, 2000)
X:\DIARY00\EXPND001.txt (Diary EXPN file for first quarter, 2000)
X:\DIARY00\DTABD001.txt (Diary DTAB file for first quarter, 2000)
X:\DIARY00\FMLYD002.txt (etc.)
X:\DIARY00\MEMBD002.txt
X:\DIARY00\EXPND002.txt
X:\DIARY00\DTABD002.txt
X:\DIARY00\FMLYD003.txt
X:\DIARY00\MEMBD003.txt
X:\DIARY00\EXPND003.txt
X:\DIARY00\DTABD003.txt
X:\DIARY00\FMLYD004.txt
X:\DIARY00\MEMBD004.txt
X:\DIARY00\EXPND004.txt
X:\DIARY00\DTABD004.txt
X:\DIARY00\AGGD00.txt
X:\DIARY00\LABELD00.txt
X:\DIARY00\UCCD00.txt
```

The file naming convention on the SAS CD-ROM is as follows:

```
X:\DIARY00\FMLD001.sd2 (Diary FMLY file for first quarter, 2000)
X:\DIARY00\MEMD001.sd2 (Diary MEMB file for first quarter, 2000)
X:\DIARY00\EXPD001.sd2 (Diary EXPN file for first quarter, 2000)
X:\DIARY00\DTBD001.sd2 (Diary DTAB file for first quarter, 2000)
X:\DIARY00\FMLD002.sd2 (etc.)
X:\DIARY00\MEMD002.sd2
X:\DIARY00\EXPD002.sd2
X:\DIARY00\DTBD002.sd2
X:\DIARY00\FMLD003.sd2
X:\DIARY00\MEMD003.sd2
X:\DIARY00\EXPD003.sd2
X:\DIARY00\DTBD003.sd2
X:\DIARY00\FMLD004.sd2
X:\DIARY00\MEMD004.sd2
```

X:\DIARY00\EXPD004.sd2  
X:\DIARY00\DTBD004.sd2  
X:\DIARY00\AGGD00.txt  
X:\DIARY00\LABELD00.txt  
X:\DIARY00\UCCD00.txt

## B. RECORD COUNTS AND LOGICAL RECORD LENGTHS PER QUARTER

The following are number of records and the logical record lengths (LRECL) in each data set:

<u>ASCII data set</u>	<u>SAS data set</u>	<u>2000 LRECL</u>	<u>2000 Record Count</u>
FMLYD001.txt	FMLD001.sd2	1558	3814
MEMBD001.txt	MEMD001.sd2	249	9558
EXPND001.txt	EXPD001.sd2	40	151189
DTABD001.txt	DTBD001.sd2	28	57424
FMLYD002.txt	FMLD002.sd2	1558	3755
MEMBD002.txt	MEMD002.sd2	249	9703
EXPND002.txt	EXPD002.sd2	40	151239
DTABD002.txt	DTBD002.sd2	28	56421
FMLYD003.txt	FMLD003.sd2	1558	3810
MEMBD003.txt	MEMD003.sd2	249	9845
EXPND003.txt	EXPD003.sd2	40	144702
DTABD003.txt	DTBD003.sd2	28	56207
FMLYD004.txt	FMLD004.sd2	1558	3948
MEMBD004.txt	MEMD004.sd2	249	10031
EXPND004.txt	EXPD004.sd2	40	154021
DTABD004.txt	DTBD004.sd2	28	58474

## C. DATA FLAGS:

Data fields on the FMLY and MEMB 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 WAGEX becomes WAGEX\_. 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.

The flag values are defined as follows:

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.

A flag value of "R" for recode has been created for the variable STATE\_. Some Primary Sampling Units (PSUs) in some states are given "false" STATE codes for nondisclosure reasons. CUs with STATE\_='R' (for recode) indicate that not all CUs with that particular STATE code are

from that state. See Section IV.A.CU CHARACTERISTICS AND INCOME FILE (FMLY) on topcoding of CU characteristics and income for more detail.

## D. FILE NOTATION

Every record from each data file includes the variable NEWID, the CU's unique identification number, which can be used to link records of one CU from several files.

Data fields for variables on the microdata files have either numeric or character values. The format column in the detailed variable descriptions (SECTION III.E. 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, identification of codes where applicable, and start position for each variable. The questionnaire source, which identifies where the data for that variable is collected on the characteristics questionnaire, is listed beneath the variable description and is formatted "S04B 2b", which denotes Section 4, Part B, Question 2b of the characteristics questionnaire.

A star (\*) 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 file, 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(Y001) indicates the variable is deleted starting with the data file of the first quarter of 2000.

\*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.

\*L indicates that the variable can contain negative values.

## E. DETAILED VARIABLE DESCRIPTIONS

### 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 weekly estimates for broad consumption categories. Demographic characteristics, such as family size, refer to the CU status on the date of the interview. Income variables contain annual values, covering the 12 months prior to the date of the interview. 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. CU AND DIARY IDENTIFIERS

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
NEWID	CU identification number. Digits 1-7 (CU sequence number, 0000001 through 9999999) uniquely identify the CU. Digit 8 is the week number, 1 or 2  BLS derived	1	NUM(8)
HH_CU_Q	Count of CUs in this household  BLS derived	1507	NUM(2)
HH_CU_Q_		1509	CHAR(1)
HHID	Identifier for household with more than one CU. Household with only one CU will be set to missing.  BLS derived	1510	NUM(3)
HHID_		1513	CHAR(1)
WEEKI	Week of the Diary CODED 1 First week Diary 2 Second week Diary  Census derived	656	CHAR(1)
WEEKI_		657	CHAR(1)
WEEKN	Number of Diary weeks surveyed, 1 or 2  BLS derived	658	NUM(1)
STRTDAY	Diary start date - date  Cover 19	625	CHAR(2)
STRTMNTH	Diary start date - month  Cover 19	627	CHAR(2)
STRTYEAR	Diary start date - year  Cover 19	629	CHAR(4)
PICK_UP	Final interview status CODED 01 Diary placed or completed 03 Temporarily absent during ENTIRE reference period  Cover 20	559	CHAR(2)

b. CU CHARACTERISTICS

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
REGION	Region CODED 1 Northeast 2 Midwest 3 South 4 West  BLS derived	580	CHAR(1)
REGION_		581	CHAR(1)
BLS_URBN	Urban/Rural CODED 1 Urban 2 Rural  BLS derived	42	CHAR(1)
POPSIZE	Population size of the PSU CODED 1 More than 4 million 2 1.20-4 million 3 0.33-1.19 million 4 125 - 329.9 thousand 5 Less than 125 thousand  BLS derived	564	CHAR(1)
SMSASTAT	Does CU reside inside a Metropolitan Statistical Area (MSA)? CODED 1 Yes 2 No  BLS derived	606	CHAR(1)
STATE	State identifier (see Section IV.A. and Section X.D. for important information)	1518	CHAR(2)
	01 Alabama *28 Mississippi		
	02 Alaska **29 Missouri		
	RR04 Arizona 31 Nebraska		
	*05 Arkansas R32 Nevada		
	**06 California R33 New Hampshire		
	08 Colorado 34 New Jersey		
	09 Connecticut *35 New Mexico		
	10 Delaware RR**36 New York		
	R11 District of Columbia **37 North Carolina		
	**12 Florida RR39 Ohio		
	**13 Georgia **40 Oklahoma		
	15 Hawaii **41 Oregon		
	16 Idaho 42 Pennsylvania		
	**17 Illinois 45 South Carolina		
	RR**18 Indiana *46 South Dakota		

*19	Iowa	**47	Tennessee
**20	Kansas	48	Texas
21	Kentucky	49	Utah
22	Louisiana	50	Vermont
R*23	Maine	**51	Virginia
24	Maryland	**53	Washington
25	Massachusetts	R54	West Virginia
**26	Michigan	55	Wisconsin
**27	Minnesota		

- \* indicates that the STATE code has been suppressed for all sampled CUs in that state (STATE\_ = 'T' for all observations).
- \*\* indicates that the STATE code has been suppressed for some sampled CUs in that state (STATE\_ = 'T' for some observations).
- R indicates that either all observations from this state have been re-coded or all strata<sup>1</sup> 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 stratum<sup>1</sup> 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 strata<sup>1</sup>.
- 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 stratum<sup>1</sup>.

<sup>1</sup> A STATE stratum is a unique POPSIZE and BLS\_URBN combination.

States not listed are not in the CE sample.

Census derived

STATE_		1520	CHAR(1)
CUTENURE	Housing tenure CODED	43	CHAR(1)
	1 Owned with mortgage		
	2 Owned without mortgage		
	3 Owned mortgage not reported		
	4 Rented		
	5 Occupied without payment of cash rent		
	6 Student housing		
	BLS derived		
CUTE_URE		44	CHAR(1)
FAM_SIZE	Number of members in CU	78	NUM(2)
	BLS derived		
FAM__IZE		80	CHAR(1)
PERSLT18	Number of children less than 18 in CU	544	NUM(2)

	BLS derived		
PERS_T18		546	CHAR(1)
PERSOT64	Number of persons over 64 in CU	547	NUM(2)
	BLS derived		
PERS_T64		549	CHAR(1)
CHILDAGE	Age of children of reference person CODED	1514	CHAR(1)
	0 No children		
	1 All children less than 6		
	2 Oldest child between 6 and 11 and at least one child less than 6		
	3 All children between 6 and 11		
	4 Oldest child between 12 and 17 and at least one child less than 12		
	5 All children between 12 and 17		
	6 Oldest child greater than 17 and at least one child less than 17		
	7 All children greater than 17		
	BLS derived		
CHIL_AGE		1515	CHAR(1)
FAM_TYPE	CU type is based on relationship of members to reference person. "Own" children include blood-related sons and daughters, step children and adopted children. CODED	81	CHAR(1)
	1 Husband and wife (H/W) only		
	2 H/W, own children only, oldest child under 6 years old		
	3 H/W, own children only, oldest child 6 to 17 years old		
	4 H/W, own children only, oldest child over 17 years old		
	5 All other H/W CUs		
	6 One parent, male, own children only, at least one child age under 18 years old		
	7 One parent, female, own children only, at least one child age under 18 years old		
	8 Single persons		
	9 Other CUs		
	BLS derived		
FAM__YPE		82	CHAR(1)
NO_EARNR	Number of earners	471	NUM(2)
	BLS derived		
NO_E_RNR		473	CHAR(1)
EARNCOMP	Composition of earners CODED	57	CHAR(1)
	1 Reference person only		
	2 Reference person and spouse		
	3 Reference person, spouse, and others		

- 4 Reference person and others
- 5 Spouse only
- 6 Spouse and others
- 7 Others only
- 8 No earners

BLS derived

EARN\_OMP 58 CHAR(1)

VEHQ How many automobiles, trucks, or other vehicles do you own? 653 NUM(2)

S02 4B

VEHQ\_ 655 CHAR(1)

INCLASS Income class of CU based on income before taxes (Codes 01 through 09 are for CUs considered complete reporters of income) 1516 CHAR(2)

CODED

- 01 Less than \$5,000
- 02 \$5,000 to \$9,999
- 03 \$10,000 to \$14,999
- 04 \$15,000 to \$19,999
- 05 \$20,000 to \$29,999
- 06 \$30,000 to \$39,999
- 07 \$40,000 to \$49,999
- 08 \$50,000 to \$69,999
- 09 \$70,000 and over
- 10 Incomplete income reported

BLS derived

RESPSTAT Completeness of income response 582 CHAR(1)

CODED

- 1 Complete income respondent
- 2 Incomplete income respondent

BLS derived

RESP\_TAT 583 CHAR(1)

INC\_RNKU Weighted cumulative percent income ranking of CU to total population. Ranking based on income before taxes for complete reporters. Rank of incomplete income reporters is set to zero. 395 NUM(9,7)

BLS derived

INC\_\_NKU 404 CHAR(1)

POVERTY Is CU income below current year's poverty threshold? (Income is defined as FINCBFX - JFS\_AMT) 1548 CHAR(1)

CODED

- 1 Yes
- 2 No

BLS derived

POVERTY_		1549	CHAR(1)
POVLEV	Poverty level threshold for this CU	1550	NUM (8)
	BLS derived		
POVLEV_		1558	CHAR (1)

**c. CHARACTERISTICS OF REFERENCE PERSON AND SPOUSE**

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
AGE_REF	Age of reference person	36	NUM(2)
	BLS derived		
AGE_REF_		38	CHAR(1)
REF_RACE	Race of reference person CODED	578	CHAR(1)
	1 White		
	2 Black		
	3 American Indian, Aleut, or Eskimo		
	4 Asian or Pacific Islander		
	BLS derived		
REF__ACE		579	CHAR(1)
SEX_REF	Sex of reference person CODED	602	CHAR(1)
	1 Male		
	2 Female		
	BLS derived		
SEX_REF_		603	CHAR(1)
MARITAL1	Marital status of reference person CODED	469	CHAR(1)
	1 Married		
	2 Widowed		
	3 Divorced		
	4 Separated		
	5 Never married		
	BLS derived		
MARI_AL1		470	CHAR(1)
ORIGIN1	Origin or ancestry of reference person CODED	495	CHAR(1)
	1 European:		
	German		
	Italian		

- Irish
- French
- Polish
- Russian
- English
- Scottish
- Dutch
- Swedish
- Hungarian
- 2 Spanish:
  - Mexican American
  - Chicano Mexican
  - Puerto Rican
  - Cuban
  - Central or South American
  - Other Spanish
- 3 Afro-American (Black or Negro)
- 4 Another group not listed / Don't know

BLS derived

ORIGIN1\_ 497 CHAR(1)

EDUC\_REF Education of reference person 68 CHAR(2)  
 CODED

- 00 Never attended school
- 10 First through eighth grade
- 11 Ninth through twelve grade (no H.S. diploma)
- 12 High school graduate
- 13 Some college, less than college graduate
- 14 Associate's degree (occupational/vocational or academic)
- 15 Bachelor's degree
- 16 Master's degree
- 17 Professional/Doctorate degree

BLS derived

EDUC0REF 70 CHAR(1)

AGE2 Age of spouse 39 NUM(2)

BLS derived

AGE2\_ 41 CHAR(1)

RACE2 Race of spouse 574 CHAR(1)  
 CODED - same as REF\_RACE

BLS derived

RACE2\_ 575 CHAR(1)

SEX2 Sex of spouse 604 CHAR(1)  
 CODED - same as SEX\_REF

BLS derived

SEX2\_ 605 CHAR(1)

ORIGIN2	Origin or ancestry of spouse CODED - same as ORIGIN1  BLS derived	497	CHAR(1)
ORIGIN2_		498	CHAR(1)
EDUCA2	Education of spouse CODED - same as EDUC_REF  BLS derived	71	CHAR(2)
EDUCA2_		73	CHAR(1)

d. **WORK EXPERIENCE OF REFERENCE PERSON AND SPOUSE**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
WK_WRKD1	Number of weeks worked by reference person in the last 12 months, including full or part time, paid vacation and paid sick leave.  BLS derived	672	NUM(2)
WK_W_KD1		674	CHAR(1)
HRSPRWK1	Number of hours usually worked per week by reference person  BLS derived	387	NUM(3)
HRSP_WK1		390	CHAR(1)
OCCULIS1	The job in which reference person received the most earnings during the past 12 months best fits the following category CODED Manager, professional 01 Administrator, manager 02 Teacher 03 Professional Administrative support, technical, sales 04 Administrative support, including clerical 05 Sales, retail 06 Sales, business goods and services 07 Technician Service 08 Protective service 09 Private household service 10 Other service Operator, assembler, laborer 11 Machine operator, assembler, inspector 12 Transportation operator 13 Handler, helper, laborer Precision production, craft, repair 14 Mechanic, repairer, precision production 15 Construction, mining Farming, forestry, fishing	561	CHAR(2)

- 16 Farming
- 17 Forestry, fishing, groundskeeping
- Armed forces
- 18 Armed forces

BLS derived

OCCU\_IS1 563 CHAR(1)

EMPLTYP1 Employer from which reference person received the most earnings in past 12 months 74 CHAR(1)

CODED

- 1 Private company, business, or individual
- 2 Federal government
- 3 State government
- 4 Local government
- 5 Self-employed in own business, professional practice, or farm
- 6 Family business or farm, working without pay

BLS derived

EMPL\_YP1 75 CHAR(1)

WHYNWRK1 Reason reference person did not work during the past 12 months 668 CHAR(1)

CODED

- 1 Retired
- 2 Taking care of home/CU
- 3 Going to school
- 4 Ill, disabled, unable to work
- 5 Unable to find work
- 6 Doing something else

BLS derived

WHYN\_RK1 669 CHAR(1)

WK\_WRKD2 Number of weeks worked by spouse in the last 12 months, including full or part time, paid vacation and paid sick leave. 675 NUM(2)

BLS derived

WK\_W\_KD2 677 CHAR(1)

HRSPRWK2 Number of hours usually worked per week by spouse 391 NUM(3)

BLS derived

HRSP\_WK2 394 CHAR(1)

OCCULIS2 Job in which spouse received the most earnings during the past 12 months 492 CHAR(2)

CODED - same as OCCULIS1

S04A 4a

OCCU\_IS2 494 CHAR(1)

EMPLTYP2 Employer from which spouse received the most earnings during 76 CHAR(1)

the past 12 months  
CODED - Same as EMPLTYP1

BLS derived

EMPL_YP2		77	CHAR(1)
WHYNWRK2	Reason spouse did not work during the past 12 months CODED - same as WHYNWRK1	670	CHAR(1)
	BLS derived		
WHYN_RK2		671	CHAR(1)
OCCEXPX	During the past 12 months, what was the total amount of occupational expenses such as union dues, tools, uniforms, business or professional association dues, licenses or permits?	483	NUM(8)
	S04B 5		
OCCE_PNX		491	CHAR(1)

**e. INCOME**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
FINCBEFX	Amount of CU income before taxes in past 12 months (UNEMPX + WRKRSX + WELFRX + INTX +DIVX + PENSIONX + ROOMX + OTHRNTX + CHDOHX + ALIOHX + OTHINX + JFS_AMT + FWAGEX + FBSNSX + FFARMX + FSS_RRX + FSUPPX) *L BLS derived	139	NUM(8)
FINC_EFX		147	CHAR(1)
FINCAFTX	Amount of CU income after taxes in past 12 months (FINCBEFX - PERSTAX) *L BLS derived	130	NUM(8)
FINC_FTX		138	CHAR(1)
EARNX	Amount of earned income before taxes by CU in past 12 months (FWAGEX + FBSNSX + FFARMX) *L BLS derived	59	NUM(8)
EARNX_		67	CHAR(1)
NONERNX	Amount of CU income other than earnings before taxes in past	474	NUM(8)

	12 months (FSS_RRX + FSUPPX + UNEMPX + WRKRSX + WELFRX + INTX + DIVX + PENSIONX + ROOMX + OTHRNTX + CHDOETHX + ALIOTHX + OTHINX + JFS_AMT)		
	*L		
	BLS derived		
NONERNX_		482	CHAR(1)
FWAGEX	Amount of wage and salary income before deductions received by all CU members in past 12 months (Sum WAGEX from MEMB file for all CU members)	378	NUM(8)
	BLS derived		
FWAGEX_		386	CHAR(1)
FBSNSX	Amount of income or loss from nonfarm business, partnership or professional practice received by all CU members in past 12 months (Sum BSNSX from MEMB file for all CU members)	83	NUM(8)
	*L		
	BLS derived		
FBSNSX_		91	CHAR(1)
FFARMX	Amount of income or loss from own farm received by all CU members in past 12 months (Sum FARMX from MEMB file for all CU members)	103	NUM(8)
	*L		
	BLS derived		
FFARMX_		111	CHAR(1)
FSS_RRX	Amount of Social Security and Railroad Retirement income prior to deductions for medical insurance and Medicare received by all CU members in past 12 months (Sum SOCRRX from MEMB file for all CU members)	351	NUM(8)
	BLS derived		
FSS_RRX_		359	CHAR(1)
FSUPPX	Amount of Supplemental Security Income from all sources received by all CU members in past 12 months (Sum SUPPX from MEMB file for all CU members)	369	NUM(8)
	BLS derived		
FSUPPX_		377	CHAR(1)
UNEMPX	During the past 12 months, what was the total amount of income from unemployment compensation received by ALL CU members?	644	NUM(8)
	S04B 1a		
UNEMPX_		652	CHAR(1)

WRKRSX	During the past 12 months, what was the total amount of income from workers' compensation or veterans' benefits, including education benefits, but excluding military retirement, received by ALL CU members?	678	NUM(8)
	S04B 1b		
WRKRSX_		686	CHAR(1)
WELFRX	During the past 12 months, what was the total amount of income from public assistance or welfare including money received from job training grants such as Job Corps received by ALL CU members?	659	NUM(8)
	S04B 1c		
WELFRX_		667	CHAR(1)
INTX	During the past 12 months, what was the total amount of income from interest on savings accounts or bonds received by ALL CU members?	414	NUM(8)
	S04B 1d		
INTX_		422	CHAR(1)
DIVX	During the past 12 months, what was the total amount of income from dividends, royalties, estates, or trusts received by ALL CU members?	48	NUM(8)
	S04B 1e		
DIVX_		56	CHAR(1)
PENSIONX	During the past 12 months, what was the total amount of income from pensions or annuities from private companies, military, Government, IRA, or Keogh received by ALL CU members?	535	NUM(8)
	S04B 1f		
PENS_ONX		543	CHAR(1)
ROOMX	During the past 12 months, how much net income or loss was received from roomers or boarders?	584	NUM(8)
	*L S04B 1g(1)		
ROOMX_		592	CHAR(1)
OTHRNTX	During the past 12 months, how much net income or loss was received from payments from other rental units?	526	NUM(8)
	*L S04B 1g(2)		
OTHRNTX_		534	CHAR(1)

OTHINX	During the past 12 months, what was the total amount of other money income including money received from cash scholarships and fellowships, stipends not based on working, or from the care of foster children received by ALL CU members?  S04B 2c	499	NUM(8)
OTHINX_		507	CHAR(1)
CHDOTHX	During the past 12 months, what was the total amount of income from child support payments in other than a lump sum amount received by ALL CU members?  S04B 1h(2)	1521	NUM(8)
CHDOTHX_		1529	CHAR(1)
ALIOTHX	During the past 12 months, what was the total amount of income from regular contributions from alimony and other sources such as from persons outside the CU received by ALL CU members?  S04B 1i(2)	1530	NUM(8)
ALIOTHX_		1538	CHAR(1)
JFS_AMT	Annual value of Food Stamps received by CU JFS_AMT = 12 X sum of (FS_AMT1 ... FS_AMT8) NOTE: JFS_AMT is a component of FINCBEFX, NONERNX, and FINCAFTX  BLS derived	423	NUM(8)
JFS_AMT_		431	CHAR(1)

f. **OTHER MONEY RECEIPTS**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
OTHRECX	Amount of other money receipts excluded from CU income before taxes received by CU in past 12 months (LUMPX + SALEX + SSREFX + INSREFX + PTAXREF)  BLS derived	508	NUM(8)
OTHRECX_		516	CHAR(1)
LUMPX	During the past 12 months, what was the total amount received from lump sum payments from estates, trusts, royalties, alimony, prizes, games of chance, or from persons outside of the CU by ALL CU members?  S04B 2a	460	NUM(8)
LUMPX_		468	CHAR(1)

CHDLMPX	During the past 12 months, what was the total amount received from a one time lump sum payment for child support by ALL CU members?  S04B 1h(1)	1539	NUM(8)
CHDLMPX_		1547	CHAR(1)
SALEX	During the past 12 months, what was the total amount received from the sale of household furnishings, equipment, clothing, jewelry, pets or other belongings, excluding the sale of vehicles or property by ALL CU members?  S04B 2b	593	NUM(8)
SALEX_		601	CHAR(1)
SSREFX	During the past 12 months, what was the total amount of refund received from overpayment on Social Security by ALL CU members?  S04B 3c	607	NUM(8)
SSREFX_		615	CHAR(1)
INSREFX	During the past 12 months, what was the total amount of refund received from insurance policies by ALL CU members?  S04B 3d	405	NUM(8)
INSREFX_		413	CHAR(1)
PTAXREFX	During the past 12 months, what was the total amount of refund received from property taxes by ALL CU members?  S04B 3e	565	NUM(8)
PTAX_EFX		573	CHAR(1)

**g. TAXES**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
PERSTAX	Amount of personal taxes paid by CU in past 12 months (ADDFEDX + ADDSTAX + ADDOTHX + FFEDTXX + FSTATXX + TAXPROPX) - (FEDREFX + STATREFX + OTHREFX) *L  BLS derived	550	NUM(8)
PERSTAX_		558	CHAR(1)
TAXPROPX	During the past 12 months, what was the total amount PAID for personal property taxes not reported elsewhere by ALL CU members?	633	NUM(8)

	S04B 4c		
TAXP_OPX		641	CHAR(1)
FFEDTXX	Amount of Federal income tax deducted from last pay annualized for all CU members (sum ANFEDTXX from MEMB file for all CU members)	112	NUM(8)
	BLS derived		
FFEDTXX_		120	CHAR(1)
ADDFEDX	During the past 12 months, what was the total amount PAID for Federal income tax, in addition to that withheld from earnings, by ALL CU members?	9	NUM(8)
	S04B 4a		
ADDFEDX_		17	CHAR(1)
FEDREFX	During the past 12 months, what was the total amount of refund received from Federal income tax by ALL CU members?	94	NUM(8)
	S04B 3a		
FEDREFX_		102	CHAR(1)
FSTATXX	Amount of state and local income taxes deducted from last pay annualized for all CU members (sum ANSTATXX from MEMB file for all CU members)	360	NUM(8)
	BLS derived		
FSTATXX_		368	CHAR(1)
ADDSTAX	During the past 12 months, what was the total amount PAID for state and local income taxes, in addition to that withheld from earnings, by ALL CU members?	27	NUM(8)
	S04B 4b		
ADDSTAX_		35	CHAR(1)
STATREFX	During the past 12 months, what was the total amount of refund received from state and local income tax by ALL CU members?	616	NUM(8)
	S04B 3b		
STAT_EFX		624	CHAR(1)
ADDOTHX	During the past 12 months, what was the total amount PAID for other taxes not reported elsewhere by ALL CU members?	18	NUM(8)
	S04B 4d		
ADDOTHX_		26	CHAR(1)

OTHREFX	During the past 12 months, what was the total amount of refund received from other sources, including any other taxes, by ALL CU members?  S04B 3f	517	NUM(8)
OTHREFX_		525	CHAR(1)

**h. RETIREMENT AND PENSION DEDUCTIONS**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
FJSSDEDX	Estimated amount of income contributed to Social Security by all CU members in past 12 months (Sum JSSDEDX from MEMB file for all CU members)  BLS derived	168	NUM(8)
FJSS_EDX		176	CHAR(1)
FRRX	Amount of Railroad Retirement deducted from last pay annualized for all CU members (Sum ANRRX from MEMB file for all CU members)  BLS derived	195	NUM(8)
FRRX_		203	CHAR(1)
FGVX	Amount of government retirement deducted from last pay annualized for all CU members (Sum ANGVX from MEMB file for all CU members)  BLS derived	121	NUM(8)
FGVX_		129	CHAR(1)
FPVTX	Amount of private pension fund deducted from last pay annualized for all CU members (sum ANPVTX from MEMB file for all CU members)  BLS derived	177	NUM(8)
FPVTX_		185	CHAR(1)
FIRAX	Amount of money placed in an individual retirement plan, such as an IRA or Keogh, by all CU members in past 12 months (sum IRAX from MEMB file for all CU members)  BLS derived	159	NUM(8)
FIRAX_		167	CHAR(1)

i. **FOOD STAMPS**

NOTE: JFS\_AMT, the annual value of Food Stamps received by CU, is in SECTION III.E.1.e. INCOME

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
REC_FS	Have any members of your CU received any Food Stamps, during the past 12 months? CODED 1 Yes 2 No  S04B 8a	576	CHAR(1)
REC_FS_		577	CHAR(1)
FD_STMPS	Have any members of your CU received any Food Stamps, in the past month? CODED 1 Yes 2 No  S04B 9a	92	CHAR(1)
FD_S_MPS		93	CHAR(1)
FS_MTHI	In how many of the past 12 months were Food Stamps received?  S04B 8b	348	NUM(2)
FS_MTHI_		350	CHAR(1)
FS_AMT1	What is the dollar value of Food Stamps received on <i>(Date in 9b)</i> - first entry  S04B 9c	204	NUM(8)
FS_AMT1_		212	CHAR(1)
FS_AMT2	See FS_AMT1 for question and source - second entry	213	NUM(8)
FS_AMT2_		221	CHAR(1)
FS_AMT3	See FS_AMT1 for question and source - third entry	222	NUM(8)
FS_AMT3_		230	CHAR(1)
FS_AMT4	See FS_AMT1 for question and source - fourth entry	231	NUM(8)
FS_AMT4_		239	CHAR(1)
FS_AMT5	See FS_AMT1 for question and source - fifth entry	240	NUM(8)
FS_AMT5_		248	CHAR(1)
FS_AMT6	See FS_AMT1 for question and source - sixth entry	249	NUM(8)
FS_AMT6_		257	CHAR(1)

FS_AMT7	See FS_AMT1 for question and source - seventh entry	258	NUM(8)
FS_AMT7_		266	CHAR(1)
FS_DATE1	When were Food Stamps received? (List all dates - month, day, year on which stamps were received during the month) - first entry	276	NUM(8)
	S04B 9b		
FS_D_TE1		284	CHAR(1)
FS_DATE2	See FS_DATE1 for question and source - second entry	285	NUM(8)
FS_D_TE2		293	CHAR(1)
FS_DATE3	See FS_DATE1 for question and source - third entry	294	NUM(8)
FS_D_TE3		302	CHAR(1)
FS_DATE4	See FS_DATE1 for question and source - fourth entry	303	NUM(8)
FS_D_TE4		311	CHAR(1)
FS_DATE5	See FS_DATE1 for question and source - fifth entry	312	NUM(8)
FS_D_TE5		320	CHAR(1)
FS_DATE6	See FS_DATE1 for question and source - sixth entry	321	NUM(8)
FS_D_TE6		329	CHAR(1)
FS_DATE7	See FS_DATE1 for question and source - seventh entry	330	NUM(8)
FS_D_TE7		338	CHAR(1)

j. **FREE MEALS AND GROCERIES**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
FREEMLX	During the past 12 months, about what was the weekly dollar value of any free meals received by any members of your CU as part of their pay?	186	NUM(8)
	S04B 6b		
FREEMLX_		194	CHAR(1)
JGROCYMV	Monthly expenditure for grocery store purchases	446	NUM(6)
	BLS derived		
JGRO_YMV		452	CHAR(1)

JGROCYWK	Weekly expenditure for grocery store purchases BLS derived	453	NUM(6)
JGRO_YWK		459	CHAR(1)
JGRCFDMV	Monthly expenditure for food and non-alcoholic beverages purchased at grocery store BLS derived	432	NUM(6)
JGRC_DMV		438	CHAR(1)
JGRCFDWK	Weekly expenditure for food and non-alcoholic beverages purchased at grocery store BLS derived	439	NUM(6)
JGRC_DWK		445	CHAR(1)

k. **HOUSING STRUCTURE**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
DESCRIP	Housing unit or Group Quarters unit CODED 01 House, apartment, flat 02 Housing unit in nontransient hotel, motel, etc. 03 Housing unit, permanent in transient hotel, motel, etc. 04 Housing unit, in rooming house 05 Mobile home or trailer with NO permanent room added 06 Mobile home or trailer with one or more permanent rooms added 07 Housing unit not specified above 08 Quarters not housing unit in rooming or boarding house 09 Student quarters in college dormitory 10 Group quarters unit, not specified above  Cover 13c and 13d	45	CHAR(2)
DESCRIP_		47	CHAR(1)
TYPOWND	Are these living quarters owned by regular ownership or as a condominium or cooperative? CODED 1 Regular ownership 2 Condominium 3 Cooperative  S02 1c	642	CHAR(1)
TYPOWND_		643	CHAR(1)

I. WEIGHTS

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
FINLWT21	CU replicate weight # 45 (total sample weight) BLS derived	148	NUM(11,3)
<i>The following are the 44 half sample replicate weights, WTREP01 through WTREP44, which are used for variance computation. They are all BLS derived variables.</i>			
WTREP01	CU replicate weight # 01	687	NUM(11,3)
WTREP02	CU replicate weight # 02	698	NUM(11,3)
WTREP03	CU replicate weight # 03	709	NUM(11,3)
WTREP04	CU replicate weight # 04	720	NUM(11,3)
WTREP05	CU replicate weight # 05	731	NUM(11,3)
WTREP06	CU replicate weight # 06	742	NUM(11,3)
WTREP07	CU replicate weight # 07	753	NUM(11,3)
WTREP08	CU replicate weight # 08	764	NUM(11,3)
WTREP09	CU replicate weight # 09	775	NUM(11,3)
WTREP10	CU replicate weight # 10	786	NUM(11,3)
WTREP11	CU replicate weight # 11	797	NUM(11,3)
WTREP12	CU replicate weight # 12	808	NUM(11,3)
WTREP13	CU replicate weight # 13	819	NUM(11,3)
WTREP14	CU replicate weight # 14	830	NUM(11,3)
WTREP15	CU replicate weight # 15	841	NUM(11,3)
WTREP16	CU replicate weight # 16	852	NUM(11,3)
WTREP17	CU replicate weight # 17	863	NUM(11,3)
WTREP18	CU replicate weight # 18	874	NUM(11,3)
WTREP19	CU replicate weight # 19	885	NUM(11,3)
WTREP20	CU replicate weight # 20	897	NUM(11,3)
WTREP21	CU replicate weight # 21	907	NUM(11,3)
WTREP22	CU replicate weight # 22	918	NUM(11,3)
WTREP23	CU replicate weight # 23	929	NUM(11,3)
WTREP24	CU replicate weight # 24	940	NUM(11,3)

WTREP25	CU replicate weight # 25	951	NUM(11,3)
WTREP26	CU replicate weight # 26	972	NUM(11,3)
WTREP27	CU replicate weight # 27	973	NUM(11,3)
WTREP28	CU replicate weight # 28	984	NUM(11,3)
WTREP29	CU replicate weight # 29	995	NUM(11,3)
WTREP30	CU replicate weight # 30	1006	NUM(11,3)
WTREP31	CU replicate weight # 31	1017	NUM(11,3)
WTREP32	CU replicate weight # 32	1028	NUM(11,3)
WTREP33	CU replicate weight # 33	1039	NUM(11,3)
WTREP34	CU replicate weight # 34	1050	NUM(11,3)
WTREP35	CU replicate weight # 35	1061	NUM(11,3)
WTREP36	CU replicate weight # 36	1072	NUM(11,3)
WTREP37	CU replicate weight # 37	1083	NUM(11,3)
WTREP38	CU replicate weight # 38	1094	NUM(11,3)
WTREP39	CU replicate weight # 39	1105	NUM(11,3)
WTREP40	CU replicate weight # 40	1116	NUM(11,3)
WTREP41	CU replicate weight # 41	1127	NUM(11,3)
WTREP42	CU replicate weight # 42	1138	NUM(11,3)
WTREP43	CU replicate weight # 43	1149	NUM(11,3)
WTREP44	CU replicate weight # 44	1160	NUM(11,3)

**m. SUMMARY EXPENDITURE DATA**

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. Underlined UCCs may not be represented in all Diary quarters. The quarter in which the addition (deletion) to the summary expenditure variable occurs is denoted by a leading superscript directly prior to the UCC code. For example, <sup>N001</sup><UCC> or <sup>D001</sup><UCC> identifies a new or deleted UCC for a given summary expenditure variable beginning in Q001.

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
FOODTOT	Food, total FOODHOME + FOODAWAY	1171	NUM(12,5)
FOODHOME	Food at home, total CEREAL + BAKEPROD + BEEF + PORK + OTHMEAT +	1183	NUM(12,5)

POULTRY + SEAFOOD + EGGS + MILKPROD + OTHDAIRY  
+ FRSHFRUT + FRSHVEG + PROCVEG + SWEETS +  
NONALBEV + OILS + MISCFOOD

CEREAL	Cereal and cereal products 010110 010120 010210 010310 010320	1195	NUM(12,5)
BAKEPROD	Bakery products 020110 020210 020310 020410 020510 020610 020620 020710 020810 020820	1207	NUM(12,5)
BEEF	Beef 030110 030210 030310 030410 030510 030610 030710 030810	1219	NUM(12,5)
PORK	Pork 040110 040210 040310 040410 040510 040610	1231	NUM(12,5)
OTHMEAT	Other meats 050110 050210 050310 050410 050900	1243	NUM(12,5)
POULTRY	Poultry 060110 060210 060310	1255	NUM(12,5)
SEAFOOD	Fish and seafood 070110 070230 070240	1267	NUM(12,5)
EGGS	Eggs 080110	1279	NUM(12,5)
MILKPROD	Fresh milk and cream 090110 090210	1291	NUM(12,5)
OTHDAIRY	Other dairy products 100110 100210 100410 100510	1303	NUM(12,5)
FRSHFRUT	Fresh fruits 110110 110210 110410 110510	1315	NUM(12,5)
FRSHVEG	Fresh vegetables 120110 120210 120310 120410	1327	NUM(12,5)
PROCFRUT	Processed fruits 130110 130121 130122 130211 130212 130310 130320	1339	NUM(12,5)
PROCVEG	Processed vegetables 140110 140210 140220 140230 140310 140320 140330 140340 140410 140420	1351	NUM(12,5)
SWEETS	Sugar and other sweets 150110 150211 150212 150310	1363	NUM(12,5)
NONALBEV	Nonalcoholic beverages 170110 170210 170310 170410 170510 170520 170530 200112	1375	NUM(12,5)
OILS	Fats and oils 160110 160211 160212 160310 160320	1387	NUM(12,5)

MISCFOOD	Miscellaneous foods 180110 180210 180310 180320 180410 180420 180510 180520 180611 180612 180620 180710 180720	1399	NUM(12,5)
FOODAWAY	Food away from home 190111 190112 190113 190114 190115 190116 190211 190212 190213 190214 190215 190216 190311 190312 190313 190314 190315 190316 190321 190322 190323 190324 190325 190326 190921 190922 190923 190924 190925 190926 190911 190912 190913 190914 190915 190916	1411	NUM(12,5)
ALCBEV	Alcoholic beverages 200111 200210 200310 200410 200511 200512 200513 200516 200521 200522 200523 200526 200531 200532 200533 200536	1423	NUM(12,5)
SMOKSUPP	Tobacco products and smoking supplies 630110 630210 630220 630900	1435	NUM(12,5)
PET_FOOD	Pet food 610310	1447	NUM(12,5)
PERSPROD	Personal care products 640110 640120 640130 640210 640220 640310 640410 640420	1459	NUM(12,5)
PERSSERV	Personal care services 650110 650210 650900	1471	NUM(12,5)
DRUGSUPP	Non-prescription drugs and supplies 550110 550210 550310 550320 550330 550410 550900 570901 570902	1483	NUM(12,5)
HOUSKEEP	Housekeeping supplies and services 330110 330210 330310 330410 330510 330610 340110 340120	1495	NUM(12,5)

## **2. MEMBER CHARACTERISTICS AND INCOME FILE (MEMB)**

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 at the placement of each diary. Income data are collected for all CU members over 13 years of age. Income taxes withheld and pension and retirement contributions are shown both annually and as deductions from the member's last paycheck. Income variables contain annual values for the 12 months prior to the interview month. 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. **CU AND MEMBER IDENTIFIERS**

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
NEWID	CU identification number. Digits 1-7 (CU sequence number, 0000001 through 9999999) uniquely identify the CU. Digit 8 is the week number, 1 or 2  BLS derived	1	NUM(8)
MEMBNO	Member number  S01 1	135	NUM(2)

b. **CHARACTERISTICS OF MEMBER**

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
CU_CODE1	What is the member's relationship to ( <i>reference person</i> )? CODED 1 Reference person 2 Spouse 3 Child or adopted child 4 Grandchild 5 In-law 6 Brother or sister 7 Mother or father 8 Other related persons 9 Unrelated persons 0 Blank or illegible entry  S01 4	70	CHAR(1)
CU_C_DE1		71	CHAR(1)
AGE	What is the member's date of birth? (Age is verified.)  S01 9	9	NUM(2)
AGE_		11	CHAR(1)
RACE	What is the race of each person in this CU? CODED 1 White 2 Black 3 American Indian, Aleut, or Eskimo 4 Asian or Pacific Islander  S01 10	151	CHAR(1)
RACE_		152	CHAR(1)
SEX	Is the member male or female? CODED 1 Male	174	CHAR(1)

	2 Female		
	S01 6		
SEX_		175	CHAR(1)
MARITAL	Is the member now . . . ? (Marital status) CODED 1 Married 2 Widowed 3 Divorced 4 Separated 5 Never married	133	CHAR(1)
	S01 12		
MARITAL_		134	CHAR(1)
ORIGIN	What is the member's ethnic origin or ancestry? CODED 1 European: German Italian Irish French Polish Russian English Scottish Dutch Swedish Hungarian 2 Spanish: Mexican American Chicano Mexican Puerto Rican Cuban Central or South American Other Spanish 3 Afro-American (Black or Negro) 4 Another group not listed / Don't know	140	CHAR(1)
	S01 11		
ORIGIN_		141	CHAR(1)
EDUCA	What is the highest level of school the member has completed or the highest degree the member has received? CODED 00 Never attended school 01-11 First grade through eleventh grade 38 Twelfth grade - no degree 39 High school graduate 40 Some college - no degree 41 Associate's degree (occupational/vocational) 42 Associate's degree (academic) 43 Bachelor's degree 44 Master's degree	72	CHAR(2)

45 Professional degree  
46 Doctorate degree

S01 13a

EDUCA_		74	CHAR(1)
IN_COLL	Is the member currently enrolled in a college or university either . . . ?	244	CHAR(1)
	CODED		
	1 Full time		
	2 Part time		
	3 Not at all		

S01 13b

IN_COLL_		245	CHAR(1)
ARM_FORC	Is member now in the Armed Forces?	242	CHAR(1)
	CODED		
	1 Yes		
	2 No		

S01 14

ARM__ORC		243	CHAR(1)
SCHLNCHQ	During the previous 30 days, how many weeks did the member purchase meals at school or in a preschool program for preschool or school age children?	162	NUM(2)

S02 5b(d)

SCHL_CHQ		164	CHAR(1)
SCHLNCHX	What is the usual weekly expense for the meals the member purchased at school?	165	NUM(8)

S02 5b(c)

SCHL_CHX		173	CHAR(1)
----------	--	-----	---------

**c. WORK EXPERIENCE OF MEMBERS**

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
WKS_WRKD	In the last 12 months, how many weeks did the member work either full or part time not counting work around the house? Include paid vacation and paid sick leave.	225	NUM(2)
	S04A 2		
WKS__RKD		227	CHAR(1)
HRSPERWK	In the weeks that the member worked, how many hours did the	113	NUM(3)

member usually work per week?

S04A 3

HRSP_RWK		116	CHAR(1)
OCCULIST	The job in which member received the most earnings during the past 12 months fits best in the following category	137	CHAR(2)
	CODED		
	Manager, professional		
	01 Administrator, manager		
	02 Teacher		
	03 Professional		
	Administrative support, technical, sales		
	04 Administrative support, including clerical		
	05 Sales, retail		
	06 Sales, business goods and services		
	07 Technician		
	Service		
	08 Protective service		
	09 Private household service		
	10 Other service		
	Operator, assembler, laborer		
	11 Machine operator, assembler, inspector		
	12 Transportation operator		
	13 Handler, helper, laborer		
	Precision production, craft, repair		
	14 Mechanic, repairer, precision production		
	15 Construction, mining		
	Farming, forestry, fishing		
	16 Farming		
	17 Forestry, fishing, groundskeeping		
	Armed forces		
	18 Armed forces		

S04A 4a

OCCU_IST		139	CHAR(1)
EMPLTYPE	Was the member . . . ? (Type of employee) Refers to job where member received the most earnings in the past 12 months.	75	CHAR(1)

CODED

- 1 An employee of a PRIVATE company, business, or individual working for wages or salary
- 2 A Federal government employee
- 3 A State government employee
- 4 A local government employee
- 5 Self-employed in OWN business, professional practice or farm
- 6 Working WITHOUT PAY in family business or farm,

S04A 4b

EMPL_YPE		76	CHAR(1)
WHYNOWRK	What was the main reason the member did not work during the	223	CHAR(1)

past 12 months? Was the member . . . ?

CODED

- 1 Retired
- 2 Taking care of home/family
- 3 Going to school
- 4 Ill, disabled, unable to work
- 5 Unable to find work
- 6 Doing something else

S04A 5

WHYN\_WRK 224 CHAR(1)

d. INCOME

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
WAGEX	During the past 12 months, what was the amount of wages or salary income received before any deductions? S04A 6a	214	NUM(8)
WAGEX_		222	CHAR(1)
GROSPAYX	What was the gross amount of the member's last pay? S04A 9	95	NUM(8)
GROS_AYX		103	CHAR(1)
PAYPERD	Time period covered for last pay 1 week 2 2 weeks 3 month 4 quarter 5 year 6 other 7 twice a month S04A 10a	248	CHAR(1)
PAYPERD_		249	CHAR(1)
BSNSX	During the past 12 months, what was the amount of income or loss from the member's own nonfarm business, partnership or professional practice after expenses? *L S04A 6b	61	NUM(8)
BSNSX_		69	CHAR(1)
FARMX	During the past 12 months, what was the amount of income or	77	NUM(8)

loss from the member's own farm after expenses?

\*L

S04A 6c

FARMX\_ 85 CHAR(1)

ANYSSINC During the past 12 months, did the member receive from the U.S. Government any money from Social Security checks?  
 CODED  
 1 Yes  
 2 No 59 CHAR(1)

S04A 7a

ANYS\_INC 60 CHAR(1)

ANYRAIL During the past 12 months, did the member receive from the U.S. Government any money from Railroad Retirement checks?  
 CODED  
 1 Yes  
 2 No 57 CHAR(1)

S04A 7b

ANYRAIL\_ 58 CHAR(1)

SOCRRX Annual amount of Social Security and Railroad Retirement income received by member in past 12 months 233 NUM(8)

BLS derived

SOCRRX\_ 241 CHAR(1)

SS\_RRX What was the amount of the last Social Security or Railroad Retirement payment received? (In past 12 months) 183 NUM(8)

S04A 7d

SS\_RRX\_ 191 CHAR(1)

MEDICARE Is the amount of the last Social Security or Railroad Retirement payment received AFTER the deduction for a Medicare premium?  
 CODED  
 1 Yes  
 2 No 246 CHAR(1)

S04A 7e

MED\_CARE 247 CHAR(1)

SS\_RRQ During the past 12 months, how many Social Security or Railroad Retirement payments did the member receive? 228 NUM(4)

S04A 7f

SS_RRQ_		232	CHAR(1)
US_SUPP	During the past 12 months, did the member receive any Supplemental Security Income checks from the U.S. Government? CODED 1 Yes 2 No  S04A 8a	212	CHAR(1)
US_SUPP_		213	CHAR(1)
STA_SUPP	During the past 12 months, did the member receive any Supplemental Security Income checks from the State or local government? CODED 1 Yes 2 No  S04A 8b	192	CHAR(1)
STA__UPP		193	CHAR(1)
SUPPX	During the past 12 months, how much did the member receive in Supplemental Security Income checks altogether? (From U.S. Government and State or local Government)  S04A 8b	203	NUM(8)
SUPPX_		211	CHAR(1)

**e. TAXES**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
ANFEDTXX	Annualized amount of Federal income tax deducted from last pay ((FEDTXX/GROSPAYX) x WAGEX)  BLS derived	12	NUM(8)
ANFE_TXX		20	CHAR(1)
FEDTXX	How much was deducted from the member's last pay for Federal income tax?  S04A 10a	86	NUM(8)
FEDTXX_		94	CHAR(1)
ANSTATXX	Annualized amount of state and local income taxes deducted from last pay ((STATXX/GROSPAYX) x WAGEX)  BLS derived	48	NUM(8)
ANST_TXX		56	CHAR(1)

STATXX	How much was deducted from the member's last pay for state and local income tax?  S04A 10b	194	NUM(8)
STATXX_		202	CHAR(1)

f. **RETIREMENT AND PENSION DEDUCTIONS**

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
JSSDEDX	Estimated amount of income contributed to Social Security by member in past 12 months  BLS derived	126	NUM(6)
JSSDEDX_		132	CHAR(1)
SLFEMPSS	Amount of income contributed to Social Security by member if self-employed  BLS derived	176	NUM(6)
SLFE_PSS		182	CHAR(1)
ANRRX	Annualized amount of Railroad Retirement deducted from last pay ((RRX/GROSPAYX) x WAGEX)  BLS derived	39	NUM(8)
ANRRX_		47	CHAR(1)
RRX	How much was deducted from the member's last pay for Railroad Retirement?  S04A 10d	153	NUM(8)
RRX_		161	CHAR(1)
ANGVX	Annualized amount of Government Retirement deducted from last pay ((GVX/GROSPAYX) x WAGEX)  BLS derived	21	NUM(8)
ANGVX_		29	CHAR(1)
GVX	How much was deducted from the member's last pay for Government Retirement?  S04A 10e	104	NUM(8)
GVX_		112	CHAR(1)
ANPVTX	Annualized amount of private pensions deducted from last pay ((PVTX/GROSPAYX) x WAGEX)	30	NUM(8)

	BLS derived		
ANPVTX_		38	CHAR(1)
PVTX	How much was deducted from the member's last pay for private pension fund?	142	NUM(8)
	S04A 10f		
PVTX_		150	CHAR(1)
IRAX	During the past 12 months, how much money did the member place in a retirement plan such as Individual Retirement Account (IRA & Keogh)? (Exclude rollovers)	117	NUM(8)
	S04A 13b		
IRAX_		125	CHAR(1)

### 3. **DETAILED EXPENDITURES (EXPN) FILE**

In the "EXPN" file, each expenditure recorded by a CU in a weekly diary is identified by UCC, gift/nongift status, and day on which the expenditure occurred. UCC's are six digit codes that identify items or groups of items. (See Appendix 2.A for a listing of UCC's.) There may be more than one record for a UCC on a single day if that is what was reported in the diary. There are no missing values in this file. If no expenditure was recorded for the item(s) represented by a UCC, then there is no record for the UCC on file.

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
NEWID	CU identification number. Digits 1-7 (CU sequence number, 0000001 through 9999999) uniquely identify the CU. Digit 8 is the week number, 1 or 2  BLS derived	1	NUM(8)
ALLOC	Adjustment status for cost variable CODED 0 Not allocated or topcoded 1 Allocated, not topcoded 2 Topcoded and allocated 3 Topcoded, not allocated  BLS derived	9	CHAR(1)
COST	Total cost of item, including sales tax  BLS derived	10	NUM(12,5)
GIFT	Was item bought for someone outside the CU? CODED 1 Yes 2 No	22	CHAR(1)

	BLS derived		
PUB_FLAG	Is cost included in published reports? CODED 1 Not published 2 Published in Integrated reports	23	CHAR(1)
	BLS derived		
QREDATE	Purchase date recode field Consists of: Sequential day of the Diary week (1-7) Day of the week, Sunday through Saturday (1-7) Reference month of this expenditure, (01-12) Reference day of this expenditure, (01-31) Reference year of this expenditure, (0000-9999)	24	CHAR(10)
	BLS derived		
QREDATE_		34	CHAR(1)
UCC	Universal Classification Code See Section XIII.A. Appendix A for a listing of EXPN UCC codes and titles	35	CHAR(6)
	BLS derived		

#### 4. INCOME (DTAB) FILE

The "DTAB" file, also referred to as the "Income" file, contains CU characteristic and income data. This file is created directly from the FMLY file and contains the same annual and point-of-placement data. It was created to facilitate computer processing when linking CU income and demographic characteristic data with EXPN expenditure data. As such, the file structure is similar to EXPN. Each characteristic and income item is identified by UCC (See Section XIII.B for a listing of UCCs). There are no records with missing values in DTAB. If the corresponding FMLY file variable contained a missing value, there is no record for the UCC.

<b>VARIABLE</b>	<b>ITEM DESCRIPTION</b>	<b>START POSITION</b>	<b>FORMAT</b>
NEWID	CU identification number. Digits 1-7 (CU sequence number, 0000001 through 9999999) uniquely identify the CU. Digit 8 is the week number, 1 or 2	1	NUM(8)
	BLS derived		
UCC	Universal Classification Code See Section XIII for a listing of DTAB UCC codes and titles	9	CHAR(6)
	BLS derived		
AMOUNT	Amount of UCC	15	NUM(12)
	BLS derived		
AMOUNT_	CODED	27	CHAR(1)

T – Topcoded  
 Blank -- Not topcoded

BLS derived

PUB\_FLAG Is amount included in published reports? 28 CHAR(1)  
 CODED  
 1 Not published  
 2 Published in Integrated reports  
 BLS derived

**5. PROCESSING FILES**

**a. AGGregation file**

X:\DIARY00\AGGD00.TXT

The AGG file shows which UCCs go into each category listed in the sample table produced by the microdata file verification and estimation program. (See Section VII.A. SAMPLE PROGRAM). It designates each category with a unique 6-digit line number. It is formatted as follows:

DESCRIPTION	START POSITION	FORMAT
UCC (Universal Classification Code)	3	CHAR(6)
Line Number: represents a line in the sample table	15	CHAR(6)

**b. LABEL file**

X:\DIARY00\LABELD00.TXT

The LABEL file assigns an identification label to each AGG file line number. It is formatted as follows:

DESCRIPTION	START POSITION	FORMAT
Line Number: represents a line in the sample table	1	CHAR(6)
Label: descriptive label in the sample table (with leading blanks)	10	CHAR(48)

**c. UCC file**

X:\DIARY00\UCCD00.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	START POSITION	FORMAT
UCC	1	CHAR(6)
UCC title	8	CHAR(50)

See Section XIII.A. EXPENDITURE UCCS ON EXPN FILE and XIII.B. INCOME AND RELATED UCCS ON DTAB FILE for a list of UCCs and their full title by file – expenditure (EXPN) or income (DTAB)

d. **SAMPLE program file**

X:\PROGRAMS\ SAMPLD00.TXT (SAS)

The SAMPLD00 file contains the computer program used in Section VII.A. SAMPLE PROGRAM of the documentation. This file has been created to provide programming assistance.

## 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 four quarters of data in the CE microdata release are used when calculating the critical value and topcode amount. If an observation is topcoded, the flag variable assigned to that observation is set to 'T'.

Since the critical value and the mean of the set of values outside the critical value may differ with each annual (four-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 four-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 FMLY file variables are subject to topcoding.

AGE_REF	Age of reference person
AGE2	Age of spouse
ADDFEDX	Amount of Federal income tax paid in addition to that withheld
ADDOTHX	Amount of other taxes paid but not reported elsewhere
ADDSTAX	Amount of state and local income tax paid in addition to that withheld
ALIOTHX	Amount received from regular contributions by all CU members
CHDLMPX	Amount received by all CU members for a lump sum child support payment in last 12 months
CHDOTHX	Amount received by all CU members in last 12 months for other child support
DIVX	Amount received from dividends, royalties, estates, or trusts
FEDREFX	Amount of refund from Federal income tax
INSREFX	Amount of refund from insurance policies
INTX	Amount received from interest on savings accounts, or bonds
LUMPX	Amount from lump sum payments from estates, trusts, royalties, alimony, child support, prizes, games of chance, or persons outside CU
OCCEXPNX	Amount paid by CU for occupational expenses, last 12 months
OTHINX	Amount from other money income, including money from care of foster children, cash scholarships and fellowships, or stipends, not based on working

OTHREFX	Amount of refund from other sources, including any other taxes
OTHRNTX	Amount of net income or loss received from other rental units
PENSIONX	Amount received from pensions or annuities from private companies, military or government, IRA or Keogh
PTAXREFX	Amount of refund from property taxes
ROOMX	Amount of net income or loss received from roomers or boarders
SALEX	Amount received from sale of household furnishings, equipment, clothing, jewelry, pets or other belongings, excluding sale of vehicles or property
SSREFX	Amount of refund from overpayment on Social Security
STATREFX	Amount of refund from state or local income tax
TAXPROPX	Amount of personal property taxes paid but not reported elsewhere

The critical values and topcode values associated with the above variables follow.

<u>Variable</u>	<u>2000 Upper critical value</u>	<u>2000 Lower critical value</u>	<u>2000 Upper topcode value</u>	<u>2000 Lower topcode value</u>
ADDFEDX	24,015	-	58,733	-
ADDOTHX	4,289	-	8,160	-
ADDSTAX	4,877	-	14,169	-
AGE_REF	90	-	94	-
AGE2	90	-	94	-
ALIOTHX	45,000	-	67,333	-
CHDLMPX	6,000	-	9,500	-
CHDOTHX	14,400	-	22,333	-
DIVX	40,000	-	77,556	-
FEDREFX	5,500	-	8,593	-
INSREFX	43,000	-	49,500	-
INTX	35,000	-	138,333	-
LUMPX	160,000	-	275,000	-
OCCEXPX	2,000	-	4,992	-
OTHINX	25,000	-	70,527	-
OTHREFX	1,680	-	4,493	-
OTHRNTX	56,400	-6,000	84,980	-11,081
PENSIONX	47,772	-	98,489	-
PTAXREFX	1,658	-	3,302	-
ROOMX	34,000	-6,000	45,000	-8,500
SALEX	9,000	-	53,375	-
SSREFX	1,000	-	5,843	-
STATREFX	1,600	-	2,746	-
TAXPROPX	4,300	-	7,790	-

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. (See the descriptions of each variable in Sections III.E.1.e. INCOME - III.E.1.h. RETIREMENT AND PENSION DEDUCTIONS for a list of component variables.)

EARNX	Amount of CU income from earnings before taxes
FBSNSX	Amount of income from non-farm business
FFARMX	Amount of income or loss received from own farm

FFEDTXX	Amount of Federal tax deducted from last pay, annualized for all CU members
FGVX	Amount of government retirement deducted from last pay, annualized for all CU members
FINCAFTX	Amount of CU income after taxes
FINCBEFX	Amount of CU income before taxes
FIRAX	Amount of money placed in individual retirement plan
FJSSDEDX	Estimated amount of annual Social Security contribution
FPVTX	Amount of private pension fund deducted from last pay, annualized for all CU members
FRRX	Amount of Railroad Retirement deducted from last pay, annualized for all CU members
FSTATXX	Amount of State and local income taxes deducted from last pay, annualized for all CU members
FWAGEX	Amount received from wage and salary income before deduction
NONERNX	Amount of income from sources other than earnings before taxes
OTHRECX	Amount of other money receipts excluded from family income
PERSTAX	Amount of personal taxes paid

Here are some examples of situations that may occur. The value for the variable FBSNSX (family income from nonfarm business) is computed as the sum of the values reported for the variable BSNSX (member income from nonfarm business) from the MEMB file. BSNSX is subject to topcoding beyond the critical value of \$150,000 (-\$9,999). The topcode value for BSNSX is \$278,800 (-\$22,532).

<u>CU</u>		<u>BSNSX</u>	<u>AFTER</u>	<u>FBSNSX</u>	<u>FLAGGED AS</u>
		<u>REPORTED</u>	<u>TOPCODING</u>	<u>VALUE</u>	<u>TOPCODED?</u>
CU 1:	MEMB1	\$145,000	\$145,000		
	MEMB2	145,000	145,000	290,000	No
CU 2:	MEMB1	350,000	278,800		
	MEMB2	-25,000	-22,532		
	MEMB3	-35,000	-22,532	233,736	Yes
CU 3	MEMB1	160,000	278,800		
	MEMB2	130,000	130,000	408,800	Yes
CU 4	MEMB1	160,000	278,800		
	MEMB2	-200,000	-22,532	256,268	Yes

While CUs 1 and 2 each originally report \$290,000 in BSNSX, topcoding is done only on the values reported by the members of CU2. Thus, the value for FBSNSX for CU2 is lower 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 CU2 has a topcoded value below the reported value, CU3's topcoded FBSNSX value (\$408,800) is higher than the amount that it reported (\$290,000). The case of CU4 demonstrates that the reported value for FBSNSX can be negative, while the topcoded value can be positive. This is due to a topcoded positive BSNSX value for MEMB1 that is large enough to change total CU income from negative to positive. The reverse can also occur.

The value of the variable, STATE, which identifies 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-a-vis variables POPSIZE, REGION, and BLS\_URBN, which show the population size of the geographic area that is sampled, the four Census regions, and the 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 17 percent of the records on the FMLY files the STATE variable is blank. The STATE flag (STATE\_) is given a value of 'T' if STATE is suppressed.

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 and REGION may be avoided. (In past releases selected observations of POPSIZE and REGION also required suppression.) If an observation of a CU's state of residence is re-coded with another state's code, the flag variable (STATE\_) of the re-coded state is assigned an 'R'. The flag variable is also assigned an 'R' for either all or a portion

of other observations from that state. In total, approximately 4% of observations of STATE\_ are assigned an 'R'.

01	Alabama	*28	Mississippi
02	Alaska	**29	Missouri
RR04	Arizona	31	Nebraska
*05	Arkansas	R32	Nevada
**06	California	R33	New Hampshire
08	Colorado	34	New Jersey
09	Connecticut	*35	New Mexico
10	Delaware	RR**36	New York
R11	District of Columbia	**37	North Carolina
**12	Florida	RR39	Ohio
**13	Georgia	**40	Oklahoma
15	Hawaii	**41	Oregon
16	Idaho	42	Pennsylvania
**17	Illinois	45	South Carolina
RR**18	Indiana	*46	South Dakota
*19	Iowa	**47	Tennessee
**20	Kansas	48	Texas
21	Kentucky	49	Utah
22	Louisiana	50	Vermont
R*23	Maine	**51	Virginia
24	Maryland	**53	Washington
25	Massachusetts	R54	West Virginia
**26	Michigan	55	Wisconsin
**27	Minnesota		

\* indicates that the STATE code has been suppressed for all sampled CUs in that state (STATE\_ = 'T' for all observations).

\*\* indicates that the STATE code has been suppressed for some sampled CUs in that state (STATE\_ = 'T' for some observations).

R indicates that either all observations from this state have been re-coded or all strata<sup>1</sup> 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 stratum<sup>1</sup> 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 strata<sup>1</sup>.

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 stratum<sup>1</sup>.

<sup>1</sup> 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 MEMB file variables are subject to topcoding.

AGE	Age of member
ANFEDTXX	Annual amount of Federal income tax deducted from pay
ANGVX	Annual amount of government retirement deducted from pay
ANPVTX	Annual amount of private pension fund deducted from pay
ANRRX	Annual amount of Railroad Retirement deducted from pay
ANSTATXX	Annual amount of state and local income taxes deducted from pay
BSNSX	Amount of income or loss received from nonfarm business
FARMX	Amount of income or loss received from own farm

FEDTXX	Amount of Federal income tax deducted from last pay
GROSPAYX	Amount of last gross pay
GVX	Amount of government retirement deducted from last pay
IRAX	Amount of money placed in an individual retirement plan
JSSDEDX	Estimated annual Social Security contribution
PVTX	Amount of private pension fund deducted from last pay
RRX	Amount of Railroad Retirement deducted from last pay
SLFEMPSS	Amount of self-employment Social Security contributions
STATXX	Amount of state and local income taxes deducted from last pay
WAGEX	Amount received from wage and salary income before deductions

The critical values and topcode values associated with the above variables follow.

<u>Variable</u>	<u>2000 Upper critical Value</u>	<u>2000 Lower critical Value</u>	<u>2000 Upper topcode value</u>	<u>2000 Lower topcode value</u>
AGE	90	-	94	-
ANFEDTXX	20,438	-	35,651	-
ANGVX	7,176	-	9,091	-
ANPVTX	11,983	-	20,411	-
ANRRX	7,500	-	NA	-
ANSTATXX	6,094	-	10,925	-
BSNSX	150,000	-9,999	278,800	-22,532
FARMX	50,000	-8,999	137,500	-24,500
FEDTXX	978	-	4,008	-
GROSPAYX	5,401	-	60,043	-
GVX	400	-	2,154	-
IRAX	14,000	-	40,305	-
JSSDEDX	6,435	-	8,633	-
PVTX	500	-	1,258	-
RRX	239	-	422	-
SLFEMPSS	13,219	-	16,626	-
STATXX	300	-	1,290	-
WAGEX	150,000	-	280,307	-

The variable ANRRX has a critical value but no topcode amount. This implies that there are no observations outside the critical value on the current four quarter release.

#### Special suppression for MEMB file variables

The five MEMB 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 WAGEX (annual wage and salary income) to derive ANFEDTXX, ANGVX, ANPVTX, ANRRX, and ANSTATXX, 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

$$(1) \quad \text{ANFEDTXX} = (\text{WAGEX} (\text{FEDTXX}/\text{GROSPAYX})).$$

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

$$(2) \quad \text{WAGEX} = (\text{ANFEDTXX} (\text{GROSPAYX}/\text{FEDTXX})).$$

In the above example, a problem with disclosure may arise when neither ANFEDTXX, GROSPAYX, nor FEDTXX (calculation components) are topcoded, *but WAGEX is*. In this situation WAGEX 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 WAGEX is greater than the critical value but ANFEDTXX, GROSPAYX, and FEDTXX are not, then the values for ANFEDTXX, GROSPAYX, and FEDTXX are suppressed and their flag variables are assigned a value of 'T'.

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

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

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

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

### C. DETAILED EXPENDITURE FILE (EXPN)

The EXPN variable COST is subject to topcoding for the following UCCs.

<u>UCC</u>	<u>Description</u>
001000	Purchase price of stocks, bonds, mutual funds
009000	Mortgage payment including coop
210110	Rent of dwelling, includes parking fees
210210	Lodging away from home
210310	Housing for someone at school
210900	Ground or land rent
550320	Medical equipment for general use
550330	Supportive convalescent or medical equipment
560110	Physicians' services
560210	Dental services
560310	Eyecare services
560330	Lab tests and x-rays
560400	Service by professionals other than physicians
570000	Hospital care not specified
570220	Nursing or convalescent home care
570230	Other medical care service
570901	Rental of medical equipment

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'. The critical values and topcode values (rounded to the nearest dollar) of the variable COST that are associated with the above UCCs follow.

<u>Variable</u>	<u>2000 Upper critical value</u>	<u>2000 Lower critical value</u>	<u>2000 Upper topcode value</u>	<u>2000 Lower topcode value</u>
001000	1,080	-	2,174	-
009000	2,229	-	2,951	-
210110	1,230	-	1,631	-
210210	395	-	774	-
550320	80	-	147	-

550330	285	-	606	-
560110	216	-	883	-
560210	693	-	1,120	-
560310	293	-	351	-
560330	320	-	363	-
560400	215	-	847	-
570000	892	-	1,377	-

The following UCCs have a critical value but no topcode amount. This implies that there are no observations outside the critical value on the current four-quarter release.

<u>Variable</u>	<u>2000 Upper critical value</u>	<u>2000 Lower critical value</u>	<u>2000 Upper topcode value</u>	<u>2000 Lower topcode value</u>
210310	4,000	-	-	-
210900	1,050	-	-	-
220400	345,000	-	-	-
570220	5,300	-	-	-
570230	185	-	-	-
570901	32	-	-	-

#### **D. INCOME FILE (DTAB)**

The DTAB variable AMOUNT is subject to topcoding for the following UCCs.

<u>UCC</u>	<u>Description</u>
900040	Amount received from pensions or annuities
900050	Amount received from regular income from dividends, royalties, estates or trusts
900060	Amount received from net income or loss received from roomers or boarders
900070	Amount received from net income or loss received from other rental units
900080	Amount received from interest on savings accounts or bonds
900131	Amount received from other child support payments
900132	Amount received from other regular contributions, including alimony
900140	Amount received from other money income
910000	Amount received from lump sum payments from estates, trusts, etc.
910010	Amount received from money from sale household furnishings etc.
910020	Amount of overpayment on Social Security
910030	Amount of refund from insurance policies
910040	Amount of refunds from property taxes
910041	Amount received from lump sum child support payments received
950000	Amount of Federal income tax paid
950001	Amount received from Federal income tax refunds
950010	Amount received from State/local income tax
950011	Amount received from State/local income tax refunds
950021	Amount of other taxes paid
950022	Amount of personal property taxes paid
950023	Amount of other tax refund received from other sources
980020	Age of reference person

If AMOUNT is greater (less) than the designated critical values for the above UCCs, AMOUNT is set to the topcode value and the associated flag variable, AMOUNT\_, is set to 'T'. The critical values and topcode values (rounded to the nearest dollar) of the variable AMOUNT that are associated with the above UCCs follow.

<u>Variable</u>	<u>2000 Upper critical Value</u>	<u>2000 Lower critical Value</u>	<u>2000 Upper topcode value</u>	<u>2000 Lower topcode value</u>
900040	47,772	-	98,489	-
900050	40,000	-	77,556	-
900060	34,000	-6,000	45,000	-8,500
900070	56,400	-6,000	84,980	-11,081
900080	35,000	-	138,333	-
900131	14,400	-	22,333	-
900132	45,000	-	67,333	-
900140	25,000	-	70,527	-
910000	160,000	-	275,000	-
910010	9,000	-	53,375	-
910020	1,000	-	5,843	-
910030	43,000	-	49,500	-
910040	1,658	-	3,302	-
910041	6,000	-	9,500	-
950000	24,015	-	-	-
950001	-	-5,500	-	-8,593
950010	4,877	-	-	-
950011	-	-1,600	-	-2,746
950021	4,289	-	8,160	-
950022	4,300	-	7,790	-
950023	-	-1,680	-	-4,493
980020	90	-	94	-

The UCC's 950000 and 950010 each have a critical value but no topcode amount. This implies that there are no observations outside the critical value on the current four-quarter release.

AMOUNT for the following UCC's is topcoded because the FMLY file variables corresponding to these UCC's are topcoded due to recalculation. (See Section IV.A. CU CHARACTERISTICS AND INCOME FILE on topcoding of FMLY variables.)

<u>UCC</u>	<u>FMLY variable</u>	<u>Description</u>
800910	FGVX	Amount of government retirement deducted from last pay, annualized for all CU members
800920	FRRX	Amount of Railroad Retirement deducted from last pay, annualized for all CU members
800931	FPVTX	Amount of private pension fund deducted from last pay, annualized for all CU members
800932	FIRAX	Amount of money placed in individual retirement plan
800940	FJSSDEDX	Estimated amount of annual Social Security contribution
900000	FWAGEX	Amount received from wage and salary income before deduction
900010	FBSNSX	Amount of income from non-farm business
900020	FFARMX	Amount of income or loss received from own farm
980000	FINCBEFX	Amount of CU income before taxes
980070	FINCAFTX	Amount of CU income after taxes

## V. ESTIMATION PROCEDURE

This section provides users of the CE Diary microdata files with procedures for estimating means and variances of data associated with any U.S. subpopulation. The production of *Consumer Expenditures in 2000, Report 958 (2002)* used an integration methodology which incorporated information from both Diary and Interview Surveys. Diary data users will not be able to match published CE estimates because of this. In addition, users will not be able to match all values because of suppression of some values, due to topcoding. See the topcoding and other nondisclosure requirements in Section IV.

## A. DEFINITION OF TERMS

Consider the following general situation. We wish to estimate expenditures on certain food items for a special group (subpopulation) of U.S. CUs; for example, all CUs of three persons. Our specific objective is to estimate the expenditures for item  $k$  over a period of  $q$  months, where data collected over  $r$  months are used in the estimate. The following definitions will be helpful in formulating the above type of estimate.

### Definition of Terms:

Let

- $S$  = all CUs in the subpopulation of interest
- $x$  = expenditure item(s) of interest
- $q$  = number of months for which estimate is desired
- $r$  = number of months in which expenditures were made to be used in calculating the estimate
- $D$  = number of days in each of the months in which expenditures were made
- $j$  = individual CU in subpopulation  $S$
- $t$  = month of expenditure

Then

- $X_{(j,k,t)}$  = the amount of money CU $_{(j)}$  spent on item  $k$  for a week during month  $t$
- $W_{(j,t,F21)}$  = the weight assigned to CU $_{(j)}$  during month  $t$

The F21 denotes FINLWT21 which is used for population estimates.

NOTE: The CUs on the Diary Survey microdata files represent the U.S. population. Some CUs represent more of the population than others; and hence carry more weight. The weight,  $W_{(j,t,F21)}$ , is a complex estimate of this representation. Refer to Section X.C. WEIGHTING for an explanation of weights. The weights have been adjusted so that the sum of all CU weights for one month approximates one third of the U.S. population. Consequently, the weights for three months (one quarter) of data approximate the total U.S. population.

Using the above terminology, we may define:

- $X_{(S,k)(q,r)}$  as an estimate for the expenditures of subpopulation  $S$  on item  $k$  over a period of  $q$  months, where data collected over  $r$  months are used.

and

- $\bar{X}_{(S,k)(q,r)}$  as an estimate of the mean expenditures of subpopulation  $S$  on item  $k$  over a period of  $q$  months, where data collected over  $r$  months are used.

## B. ESTIMATION OF TOTAL AND MEAN EXPENDITURES

As an example, let us estimate total expenditures on milk (item  $k$ ) of subpopulation  $S$  over a 12-month period. Data collected over 6 months will be used to make the estimate. Users may use less than 12 months of data to perform seasonal calculations. In the notation described above, the estimate is  $X_{(S,k)(12,6)}$ .

$$X_{(S,k)(12,6)} = 3\left(\frac{12}{6}\right) \sum_{t=1}^6 \left( \sum_{j=1}^n \left( \frac{D(t)}{7} \right) W_{(j,t,F21)} X_{(j,k,t)} \right)_t \quad (1a)$$

where the inner summation sums expenditures for all  $j$  in  $S$ , indexed from  $j = 1$  through  $n$  and the outer summation sums over months  $t = 1$  through 6. The factor "3" compensates for the fact that the weights for the CUs visited in one month have been adjusted to represent one third of the U.S. population. The factor "12" reflects our desire to estimate expenditures over a 12-month period; and the "6" is the adjustment made because data for 6 months are used. Since the data  $X_{(j,k,t)}$  are in terms of weekly expenditures, the factors, (number of days in the month)/7, are used to convert weekly expenditures into their monthly equivalents.

The above formula can be generalized to estimate the total expenditures of subpopulation  $S$  on item  $k$  for  $q$  months, but using data collected over  $r$  months. The generalization is

$$X_{(S,k)(q,r)} = 3\left(\frac{q}{r}\right) \sum_{t=1}^r \left( \sum_{j=1}^n \left( \frac{D(t)}{7} \right) W_{(j,t,F21)} X_{(j,k,t)} \right)_t \quad (1b)$$

where the inner summation sums expenditures for all  $j$  in  $S$ , indexed from  $j = 1$  through  $n$  and the outer summation sums over months  $t = 1$  through  $r$ .

An estimate for the expenditures for two or more items may be obtained by summing those expenditures at the CU level and then proceeding as before.

The next example will give an estimate,  $\bar{X}_{(S,k)(12,6)}$ , of mean expenditures over twelve months ( $q$ ), on item  $k$ , of CUs in subpopulation  $S$ , where data collected over a six month period ( $r$ ) are used. The result is

$$\bar{X}_{(S,k)(12,6)} = \frac{3\left(\frac{12}{6}\right) \sum_{t=1}^6 \left( \sum_{j=1}^n \left( \frac{D(t)}{7} \right) W_{(j,t,F21)} X_{(j,k,t)} \right)_t}{\frac{3 \sum_{t=1}^6 \left( \sum_{j=1}^n W_{(j,t,F21)} \right)_t}{6}} \quad (2a)$$

where the numerator is an estimate of aggregate expenditures as formulated in equation (1a), and where the denominator is an estimate of the population of CUs in the U.S. during the six-month period for which the expenditure data are collected. The inner summation in the denominator of (2a) sums FINLWT21 for a given month ( $t$ ), for all  $j$  in  $S$ , indexed from  $j = 1$  through  $n$ , and the outer summation in the denominator of (2a) sums over months  $t = 1$  through 6. As in the estimate of aggregate expenditures, the factor "3" to the left of the outer summation in the denominator of equation (2a) adjusts FINLWT21 to represent the entire population for each month of data used. The proper U.S. population count is arrived at by dividing the denominator by  $r$ , or in this case "6", (representing the 6 month period of collected data in this example).

The above formula generalizes to  $\bar{X}_{(S,k)(q,r)}$ , (i.e., the estimate of the mean expenditure by subpopulation  $S$  on item  $k$  for  $q$  months using data collected over  $r$  months). In detail:

$$\bar{X}_{(S,k)(q,r)} = \frac{q \sum_{t=1}^r \left( \sum_{j=1}^n \left( \frac{D_{(t)}}{7} \right) W_{(j,t,F21)} X_{(j,k,t)} \right)}{\sum_{t=1}^r \left( \sum_{j=1}^n W_{(j,t,F21)} \right)} \quad (2b)$$

Note: The factors “3” (adjustment of FINLWT21 to one U.S. population) and “6”, (number of months,  $r$ , for which the data are collected), which appear both in the numerator and the denominator of (2a), cancel. These scalars are dropped from the general form of  $\bar{X}_{(S,k)(q,r)}$ .

The estimates for total ( $X_{(S,k)(q,r)}$ ) and mean expenditures ( $\bar{X}_{(S,k)(q,r)}$ ) are based on all CUs; not just the CUs with positive expenditures for item  $k$ . Consider the calculation for the mean expenditure of tobacco. The formula  $\bar{X}_{(S,k)(q,r)}$  includes all CUs, both smoking and nonsmoking. One might be more interested in the mean expenditures on tobacco but only for those CUs that actually have expenditures. This can be accounted for by properly defining the initial subpopulation  $S$  so as to restrict it to CUs with positive tobacco expenditures.

## C. ESTIMATION OF MEAN ANNUAL INCOME

Let  $\bar{Z}_{(S,r)}$  be an estimate of the mean annual income of CUs in subpopulation  $S$ , where income data collected over  $r$  months is to be used.

Let  $Z_{(j,t)}$  = the annual income reported by CU( $j$ ) in month  $t$ . Then the estimated mean annual income is

$$\bar{Z}_{(S,r)} = \frac{\sum_{t=1}^r \left( \sum_{j=1}^n W_{(j,t,F21)} Z_{(j,t)} \right)}{\sum_{t=1}^r \left( \sum_{j=1}^n W_{(j,t,F21)} \right)}$$

## VI. RELIABILITY STATEMENT

### A. DESCRIPTION OF SAMPLING ERROR AND NONSAMPLING ERROR

Sample surveys are subject to two types of errors, sampling and nonsampling. 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 enables 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 for 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 expenditure obtained in the Diary Survey are generally lower than the "true" level due to the above factors.

## B. ESTIMATING SAMPLING ERROR

### 1. VARIANCE ESTIMATION

Variance estimation can be done in many ways. The method illustrated below (a pseudo-replication technique) is chosen because it is accurate yet simple to understand. The basic idea is to artificially construct several "subsamples" from the original sample data. This construction is done in a manner so that the variance information of the original data is preserved in these subsamples. These subsamples (or pseudo-replications) can then be used to obtain approximate variances for the estimates.

The Diary microdata files contain information that facilitates this form of variance estimation procedure. Specifically, 45 weights are associated with each CU. The forty-fifth weight, called FINLWT21 at BLS, (which is the weight for the total sample) is used for estimations of total or mean expenditures. The other weights (replicates 1 through 44) are used for variance estimation of the totals or means. Note that half of the weights in each replicate are zero. This reflects the fact that in this technique only half the CUs are used in each of the 44 pseudo-replicates. Recall that  $X_{(S,k)(q,r)}$  is an estimate for the expenditures of subpopulation  $S$  on item  $k$  over a period of  $q$  months, where data collected over  $r$  months are used. This notation does not reveal the fact that 45 replicate weights are to be used for estimation of variance. We expand the notation to include this information. Specifically, let

$X_{(S,k)(q,r),a}$  = an estimate of the same quantity as  $X_{(S,k)(q,r)}$ , but using the weights of the  $a^{\text{th}}$  replicate.

That is  $X_{(S,k)(q,r),a}$  is an estimate of the total expenditures by CUs in subpopulation  $S$  on item  $k$  over  $q$  months using  $r$  months of collection data, and where the weights from the  $a^{\text{th}}$  replicate are used. Note that the estimate using any one of the first 44 replicate weights only uses part of the data; hence in general  $X_{(S,k)(q,r),a}$  is not equal to  $X_{(S,k)(q,r)}$ .

An estimate for the variance of  $X_{(S,k)(q,r)}$  (denoted by  $V(X_{(S,k)(q,r)})$ ) can be calculated using the following formula:

$$V(X_{(S,k)(q,r)}) = \frac{1}{44} \sum_{a=1}^{44} (X_{(S,k)(q,r),a} - \bar{X}_{(S,k)(q,r)})^2$$

Estimates for the variances of  $\bar{X}_{(S,k)(q,r)}$  and  $\bar{Z}_{(S,r)}$  are similar and are given below.

$$V(\bar{X}_{(S,k)(q,r)}) = \frac{1}{44} \sum_{a=1}^{44} (\bar{X}_{(S,k)(q,r),a} - \bar{X}_{(S,k)(q,r)})^2$$

and

$$V(\bar{Z}_{(S,r)}) = \frac{1}{44} \sum_{a=1}^{44} (\bar{Z}_{(S,r),a} - \bar{Z}_{(S,r)})^2$$

where  $\bar{X}_{(S,k)(q,r),a}$  and  $\bar{Z}_{(S,r),a}$  are estimates similar to  $\bar{X}_{(S,k)(q,r)}$  and  $\bar{Z}_{(S,r)}$  except weights of the  $a^{th}$  replicates are used.

## **2. STANDARD ERROR OF THE MEAN**

The standard error of the mean,  $S.E.(\bar{x})$ , is defined as the square root of the variance 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. A 95 percent confidence interval can be constructed around an estimate, bounded by values two times the standard error less than and greater than the estimate. For example, the average weekly expenditures for beef for total complete income reporters in 2000 was \$4.68. The standard error for this estimate is \$.12. Hence, the 95 percent confidence interval around this estimate is from \$4.44 to \$4.92. Therefore, we could conclude with 95 percent confidence that the mean weekly expenditures for beef for total complete income reporters in 2000 lies within the interval \$4.44 to \$4.92.

## **3. STANDARD ERROR OF THE DIFFERENCE BETWEEN TWO MEANS**

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

For example, in 2000 the estimated average weekly expenditures for total food for complete income reporters in the \$30,000 to \$39,999 income range is \$91.94 and the estimate for complete income reporters in the \$40,000 to \$49,999 income range is \$112.15. The apparent difference between the two mean expenditures is \$103.78 – \$90.29 = \$20.21. The standard error on the estimate of \$112.15 is \$3.79 and the estimated standard error for the \$91.94 estimate is \$2.99. The standard error (S.E.) of a difference is approximately equal to

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

where

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

This assumes that  $\bar{x}_1$  and  $\bar{x}_2$  are disjoint subsets of the population. Hence, the standard error of the difference in food expenditures between complete income reporters in the \$30,000 to \$39,999 and in the \$40,000 to \$49,999 income ranges is about

$$\sqrt{(3.79)^2 + (2.99)^2} = 4.83$$

This means that the 95 percent confidence interval around the difference is from \$10.74 to \$29.68. Since this interval does not include zero, we can conclude with 95 percent confidence that the mean weekly food expenditures for the \$40,000 to \$49,999 income group is greater than the mean weekly food expenditures for the \$30,000 to \$39,999 income group.

Analyses of the difference between two estimates can also be performed on nondisjoint sets of population, where one is a subset of the other. The formula for computing the standard error (S.E.) of the difference between two nondisjoint estimates is

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

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 gives users a benchmark to verify that their copy of the CD-ROM contains valid data, illustrate the methodology CE uses in producing publication tables, and offer an example of coding to access the data and produce a sample table. The program is written in SAS and utilizes the ASCII datasets available on this CD-ROM. A program written in SAS but utilizing the SAS datasets is also present on the CD-ROM but will not be referenced here. Refer to the table following the program to check output. (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 Section III.E. DETAILED VARIABLE DESCRIPTIONS in this documentation.

This program produces a table of selected expenditures by income class of the Consumer Unit (CU). The first section of the program extracts the relevant variables from the FMYL files, while the second section extracts the expenditure and income data from the EXPN and DTAB files. These three datasets are then used along with the AGG and LABEL processing files 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

<pre> 1  %let y =00; 2 3  filename fmly1 "d:\diary&amp;y\fmlyd&amp;y.1.txt"; 4  filename fmly2 "d:\diary&amp;y\fmlyd&amp;y.2.txt"; 5  filename fmly3 "d:\diary&amp;y\fmlyd&amp;y.3.txt"; 6  filename fmly4 "d:\diary&amp;y\fmlyd&amp;y.4.txt"; 7 8  filename dtab1 "d:\diary&amp;y\dtabd&amp;y.1.txt"; 9  filename dtab2 "d:\diary&amp;y\dtabd&amp;y.2.txt"; 10 filename dtab3 "d:\diary&amp;y\dtabd&amp;y.3.txt"; 11 filename dtab4 "d:\diary&amp;y\dtabd&amp;y.4.txt"; 12 13 filename expn1 "d:\diary&amp;y\expnd&amp;y.1.txt"; 14 filename expn2 "d:\diary&amp;y\expnd&amp;y.2.txt"; 15 filename expn3 "d:\diary&amp;y\expnd&amp;y.3.txt"; 16 filename expn4 "d:\diary&amp;y\expnd&amp;y.4.txt"; 17 18 filename agg "d:\diary&amp;y\aggd&amp;y..txt"; 19 filename labls "d:\diary&amp;y\labeld&amp;y..txt"; 20 21 22 23 options linesize=153 pagesize=52 missing=""; 24 25 26 27 data fmly1; 28   infile fmly1 lrecl=1558; 29   input @1 newid 8. @148 finlwt21 11.3 30     @1516 inclass \$2.;  NOTE: The infile FMLY1 is:       FILENAME=d:\diary00\fmlyd001.txt,       RECFM=V,LRECL=1558  NOTE: 3814 records were read from the infile FMLY1.       The minimum record length was 1558.       The maximum record length was 1558. NOTE: The data set WORK.FMLY1 has 3814 observations and 3 variables. NOTE: The DATA statement used 2.02 seconds.  31   proc sort; by newid; 32  NOTE: The data set WORK.FMLY1 has 3814 observations and 3 variables. NOTE: The PROCEDURE SORT used 0.27 seconds.  33 data fmly2; 34   infile fmly2 lrecl=1558; 35   input @1 newid 8. @148 finlwt21 11.3 36     @1516 inclass \$2.; </pre>	<p>Line 1 sets the year as a macro variable that can be used throughout the program. Lines 3-16 designate the location of the data on the cd-rom.</p> <p>Lines 18-19 designate the location of the two processing files.</p> <p>Line 23 forces the output to be printed landscape.</p> <p>Lines 27-49 pull in the necessary variables from the fmly files. Newid is the code given to a consumer unit each time it participates. Finlwt21 will be 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.</p>
---	---

NOTE: The infile FMLY2 is:  
FILENAME=d:\diary00\fmlyd002.txt,  
RECFM=V,LRECL=1558

NOTE: 3755 records were read from the infile FMLY2.  
The minimum record length was 1558.  
The maximum record length was 1558.  
NOTE: The data set WORK.FMLY2 has 3755 observations and  
3 variables.  
NOTE: The DATA statement used 0.6 seconds.

```
37 proc sort; by newid;  
38
```

NOTE: The data set WORK.FMLY2 has 3755 observations and  
3 variables.  
NOTE: The PROCEDURE SORT used 0.11 seconds.

```
39 data fmly3;  
40 infile fmly3 lrecl=1558;  
41 input @1 newid 8. @148 finlwt21 11.3  
42 @1516 inclass $2.;
```

NOTE: The infile FMLY3 is:  
FILENAME=d:\diary00\fmlyd003.txt,  
RECFM=V,LRECL=1558

NOTE: 3810 records were read from the infile FMLY3.  
The minimum record length was 1558.  
The maximum record length was 1558.  
NOTE: The data set WORK.FMLY3 has 3810 observations and  
3 variables.  
NOTE: The DATA statement used 0.55 seconds.

```
43 proc sort; by newid;  
44
```

NOTE: The data set WORK.FMLY3 has 3810 observations and  
3 variables.  
NOTE: The PROCEDURE SORT used 0.11 seconds.

```
45 data fmly4;  
46 infile fmly4 lrecl=1558;  
47 input @1 newid 8. @148 finlwt21 11.3  
48 @1516 inclass $2.;
```

NOTE: The infile FMLY4 is:  
FILENAME=d:\diary00\fmlyd004.txt,  
RECFM=V,LRECL=1558

NOTE: 3948 records were read from the infile FMLY4.  
The minimum record length was 1558.  
The maximum record length was 1558.  
NOTE: The data set WORK.FMLY4 has 3948 observations and  
3 variables.

<p>NOTE: The DATA statement used 0.59 seconds.</p> <pre> 49  proc sort; by newid; 50 51 </pre> <p>NOTE: The data set WORK.FMLY4 has 3948 observations and 3 variables. NOTE: The PROCEDURE SORT used 0.11 seconds.</p> <pre> 52  data fmyall; 53  set fmy1 fmy2 fmy3 fmy4 ; 54  by newid; 55 56  uspop = finlwt21 / 4; </pre> <p>NOTE: The data set WORK.FMLYALL has 15327 observations and 4 variables. NOTE: The DATA statement used 0.38 seconds.</p> <pre> 57  proc sort; by newid; 58 </pre> <p>NOTE: The data set WORK.FMLYALL has 15327 observations and 4 variables. NOTE: The PROCEDURE SORT used 0.28 seconds.</p> <pre> 59  proc summary nway data = fmyall (drop=finlwt21); 60  class inclass; 61  var uspop; 62  output out = newpop sum = popus; </pre> <p>NOTE: The data set WORK.NEWPOP has 10 observations and 4 variables. NOTE: The PROCEDURE SUMMARY used 0.44 seconds.</p> <pre> 63  proc transpose data = newpop out = transpop prefix = pop; 64  var popus; 65 </pre> <p>NOTE: The data set WORK.TRANSPOP has 1 observations and 11 variables. NOTE: The PROCEDURE TRANSPOSE used 0.27 seconds.</p> <pre> 66  data subagg (drop = _name_); 67  set transpop; 68  popt = sum (of pop1-pop10); 69  popc = sum (of pop1-pop9); </pre> <p>NOTE: The data set WORK.SUBAGG has 1 observations and 12 variables. NOTE: The DATA statement used 0.05 seconds.</p>	<p>Lines 52-54 bring each of the 4 quarters of fmy datasets together.</p> <p>Line 56 divides finlwt21 by 4 so that summing uspop later will yield the total U.S. population. (Since summing finlwt21 for each quarter will yield one U.S. population, this adjustment is necessary).</p> <p>Lines 59-71 create the total population weights by income group that will be used as the denominator in calculating the average annual expenditures later in the program and prints them.</p> <p>Lines 63-64 transpose the newpop dataset to match the format of the PUBRAY data set that it will be matched with later in the program.</p> <p>Lines 66-69 take the transposed dataset and calculate popt, the all consumer units population, and popc, the all complete income reporters population.</p>
--	---

```
70 proc print data=subagg;
71 title "Population Counts for 20&y";
72
73
74
```

NOTE: The PROCEDURE PRINT used 0.66 seconds.

```
75 data dtab1;
76 infile dtab1 lrecl=28;
77 input @1 newid 8. @9 ucc $6. @15 amount 12. ;
```

NOTE: The infile DTAB1 is:  
FILENAME=d:\diary00\dtabd001.txt,  
RECFM=V,LRECL=28

NOTE: 57424 records were read from the infile DTAB1.

The minimum record length was 28.

The maximum record length was 28.

NOTE: The data set WORK.DTAB1 has 57424 observations and 3 variables.

NOTE: The DATA statement used 0.93 seconds.

```
78 proc sort; by newid;
79
```

NOTE: The data set WORK.DTAB1 has 57424 observations and 3 variables.

NOTE: The PROCEDURE SORT used 0.93 seconds.

```
80 data dtab2;
81 infile dtab2 lrecl=28;
82 input @1 newid 8. @9 ucc $6. @15 amount 12. ;
```

NOTE: The infile DTAB2 is:  
FILENAME=d:\diary00\dtabd002.txt,  
RECFM=V,LRECL=28

NOTE: 56421 records were read from the infile DTAB2.

The minimum record length was 28.

The maximum record length was 28.

NOTE: The data set WORK.DTAB2 has 56421 observations and 3 variables.

NOTE: The DATA statement used 0.88 seconds.

```
83 proc sort; by newid;
84
```

NOTE: The data set WORK.DTAB2 has 56421 observations and 3 variables.

NOTE: The PROCEDURE SORT used 0.98 seconds.

Lines 75-93 pull in the dtab files. Newid is the consumer unit code. Ucc is a code that represents the type of income variable. Amount is the value that corresponds to the ucc code.

```
85 data dtab3;
86 infile dtab3 lrecl=28;
87 input @1 newid 8. @9 ucc $6. @15 amount 12. ;
```

NOTE: The infile DTAB3 is:  
FILENAME=d:\diary00\dtabd003.txt,  
RECFM=V,LRECL=28

NOTE: 56207 records were read from the infile DTAB3.  
The minimum record length was 28.  
The maximum record length was 28.

NOTE: The data set WORK.DTAB3 has 56207 observations  
and 3 variables.

NOTE: The DATA statement used 0.88 seconds.

```
88 proc sort; by newid;
89
```

NOTE: The data set WORK.DTAB3 has 56207 observations  
and 3 variables.

NOTE: The PROCEDURE SORT used 0.97 seconds.

```
90 data dtab4;
91 infile dtab4 lrecl=28;
92 input @1 newid 8. @9 ucc $6. @15 amount 12. ;
```

NOTE: The infile DTAB4 is:  
FILENAME=d:\diary00\dtabd004.txt,  
RECFM=V,LRECL=28

NOTE: 58474 records were read from the infile DTAB4.  
The minimum record length was 28.  
The maximum record length was 28.

NOTE: The data set WORK.DTAB4 has 58474 observations  
and 3 variables.

NOTE: The DATA statement used 0.93 seconds.

```
93 proc sort; by newid;
94
```

NOTE: The data set WORK.DTAB4 has 58474 observations  
and 3 variables.

NOTE: The PROCEDURE SORT used 1.59 seconds.

```
95 data dtab(rename=(amount=cost));
96 set dtab1 dtab2 dtab3 dtab4 ;
97 by newid;
```

NOTE: The data set WORK.DTAB has 228526 observations  
and 3 variables.

NOTE: The DATA statement used 2.58 seconds.

```
98 proc sort; by newid;
```

Lines 95-97 bring the 4 quarters of dtab datasets together. The variable amount is renamed cost so that it can be merged with the expn datasets later in the program.

NOTE: The data set WORK.DTAB has 228526 observations and 3 variables.  
NOTE: The PROCEDURE SORT used 6.04 seconds.

```
99  proc datasets;
                                     -----Directory-----
                                     Libref:   WORK
                                     Engine:   V612
                                     Physical Name:
j:\saswork\#TD06649

                                     # Name   Memtype
Indexes
ffffffffffffffffffffffffffffffff
                                     1 DTAB   DATA
                                     2 DTAB1  DATA
                                     3 DTAB2  DATA
                                     4 DTAB3  DATA
                                     5 DTAB4  DATA
                                     6 FMLY1  DATA
                                     7 FMLY2  DATA
                                     8 FMLY3  DATA
                                     9 FMLY4  DATA
                                    10 FMLYALL DATA
                                    11 NEWPOP  DATA
                                    12 SUBAGG  DATA
                                    13 TRANSPOP DATA
99      delete dtab1 dtab2 dtab3 dtab4 ;
100
101
```

NOTE: Deleting WORK.DTAB1 (memtype=DATA).  
NOTE: Deleting WORK.DTAB2 (memtype=DATA).  
NOTE: Deleting WORK.DTAB3 (memtype=DATA).  
NOTE: Deleting WORK.DTAB4 (memtype=DATA).  
NOTE: The PROCEDURE DATASETS used 0.66 seconds.

```
102 data expn1;
103  infile expn1 lrecl=40;
104  input @1 newid 8. @35 ucc $6. @10 cost 12.5 ;
```

NOTE: The infile EXPN1 is:  
FILENAME=d:\\diary00\\expnd001.txt,  
RECFM=V,LRECL=40

NOTE: 151189 records were read from the infile EXPN1.  
The minimum record length was 40.  
The maximum record length was 40.  
NOTE: The data set WORK.EXP1 has 151189 observations and 3 variables.  
NOTE: The DATA statement used 2.31 seconds.

```
105  proc sort; by newid;
106
```

Lines 99-100 delete from memory the datasets that are no longer necessary for processing.

Lines 102-120 pull in the expn files. Newid is the consumer unit code. Ucc is the code designating the type of expenditure. Cost is the amount of the expenditure.

NOTE: The data set WORK.EXP1 has 151189 observations and 3 variables.

NOTE: The PROCEDURE SORT used 4.11 seconds.

```
107 data expn2;
108   infile expn2 lrecl=40;
109   input @1 newid 8. @35 ucc $6. @10 cost 12.5 ;
```

NOTE: The infile EXPN2 is:

```
FILENAME=d:\diary00\expnd002.txt,
RECFM=V,LRECL=40
```

NOTE: 151239 records were read from the infile EXPN2.

The minimum record length was 40.

The maximum record length was 40.

NOTE: The data set WORK.EXP2 has 151239 observations and 3 variables.

NOTE: The DATA statement used 2.37 seconds.

```
110 proc sort; by newid;
111
```

NOTE: The data set WORK.EXP2 has 151239 observations and 3 variables.

NOTE: The PROCEDURE SORT used 4.12 seconds.

```
112 data expn3;
113   infile expn3 lrecl=40;
114   input @1 newid 8. @35 ucc $6. @10 cost 12.5 ;
```

NOTE: The infile EXPN3 is:

```
FILENAME=d:\diary00\expnd003.txt,
RECFM=V,LRECL=40
```

NOTE: 144702 records were read from the infile EXPN3.

The minimum record length was 40.

The maximum record length was 40.

NOTE: The data set WORK.EXP3 has 144702 observations and 3 variables.

NOTE: The DATA statement used 2.35 seconds.

```
115 proc sort; by newid;
116
```

NOTE: The data set WORK.EXP3 has 144702 observations and 3 variables.

NOTE: The PROCEDURE SORT used 3.89 seconds.

```
117 data expn4;
118   infile expn4 lrecl=40;
119   input @1 newid 8. @35 ucc $6. @10 cost 12.5 ;
```

NOTE: The infile EXPN4 is:

FILENAME=d:\\diary00\\expnd004.txt,  
RECFM=V,LRECL=40

NOTE: 154021 records were read from the infile EXPN4.

The minimum record length was 40.

The maximum record length was 40.

NOTE: The data set WORK.EXP4 has 154021 observations  
and 3 variables.

NOTE: The DATA statement used 2.41 seconds.

120 proc sort; by newid;  
121

NOTE: The data set WORK.EXP4 has 154021 observations  
and 3 variables.

NOTE: The PROCEDURE SORT used 4.23 seconds.

122 data expn;  
123 set expn1 expn2 expn3 expn4 ;  
124 by newid;  
125 if cost > 0;

NOTE: The data set WORK.EXP4 has 601151 observations  
and 3 variables.

NOTE: The DATA statement used 6.98 seconds.

126 proc sort; by newid;

NOTE: The data set WORK.EXP4 has 601151 observations  
and 3 variables.

NOTE: The PROCEDURE SORT used 15.75 seconds.

127 proc datasets;

-----Directory-----

Libref: WORK  
Engine: V612  
Physical Name:

j:\saswork\#TD06649

Lines 127-128 delete from memory the  
datasets no longer needed for processing.

Indexes	#	Name	Memtype
<i>ffffffffffffffffffffffffffff</i>	1	DTAB	DATA
	2	EXP4	DATA
	3	EXP1	DATA
	4	EXP2	DATA
	5	EXP3	DATA
	6	EXP4	DATA
	7	FMLY1	DATA
	8	FMLY2	DATA
	9	FMLY3	DATA
	10	FMLY4	DATA
	11	FMLYALL	DATA

```

12 NEWPOP DATA
13 SUBAGG DATA
14 TRANSPOP DATA
127 delete expn1 expn2 expn3 expn4;
128
129
130

NOTE: Deleting WORK.EXP1 (memtype=DATA).
NOTE: Deleting WORK.EXP2 (memtype=DATA).
NOTE: Deleting WORK.EXP3 (memtype=DATA).
NOTE: Deleting WORK.EXP4 (memtype=DATA).
NOTE: The PROCEDURE DATASETS used 0.11 seconds.

131 data expend ;
132 set dtab expn;
133 by newid;

NOTE: The data set WORK.EXPEND has 829677 observations
and 3 variables.
NOTE: The DATA statement used 8.74 seconds.

134 proc sort; by newid;

NOTE: The data set WORK.EXPEND has 829677 observations
and 3 variables.
NOTE: The PROCEDURE SORT used 21.8 seconds.

135 proc datasets;

-----Directory-----

Libref: WORK
Engine: V612
Physical Name:

j:\saswork\#TD06649

# Name Memtype
Indexes

ffffffffffffffffffffffffffff

1 DTAB DATA
2 EXPEND DATA
3 EXPN DATA
4 FMLY1 DATA
5 FMLY2 DATA
6 FMLY3 DATA
7 FMLY4 DATA
8 FMLYALL DATA
9 NEWPOP DATA
10 SUBAGG DATA
11 TRANSPOP DATA

135 delete dtab expn;
136

NOTE: Deleting WORK.DTAB (memtype=DATA).
NOTE: Deleting WORK.EXP1 (memtype=DATA).

```

Lines 131-134 pull the dtab and expn files together.

Lines 135-136 delete from memory the datasets no longer needed for processing.

NOTE: The PROCEDURE DATASETS used 0.11 seconds.

```
137 data pubfile (drop= uspop) ;
138   merge fmyall (in = infam)
139       expend (in = inexp)
140       ;
141   by newid ;
142   if not inexp then delete;
143   if cost='.' then cost=0;
144
145   wcost = finlwt21 * cost/4;
146
```

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

143:13

NOTE: The data set WORK.PUBFILE has 829677 observations and 6 variables.

NOTE: The DATA statement used 15.05 seconds.

```
147   proc summary nway data = pubfile (drop=newid);
148     class ucc inclclass;
149     var wcost ;
150     output out = aggcst sum = ;
151
```

NOTE: The data set WORK.AGGCST has 4997 observations and 5 variables.

NOTE: The PROCEDURE SUMMARY used 12.63 seconds.

```
152   proc datasets;
```

-----Directory-----

Libref: WORK
Engine: V612
Physical Name:

j:\saswork\#TD06649

# Name Memtype

Indexes

ffffffffffffffffffffffffffff

- 1 AGGCST DATA
- 2 EXPEND DATA
- 3 FMLY1 DATA
- 4 FMLY2 DATA
- 5 FMLY3 DATA
- 6 FMLY4 DATA
- 7 FMLYALL DATA
- 8 NEWPOP DATA
- 9 PUBFILE DATA
- 10 SUBAGG DATA
- 11 TRANSPop DATA

```
153   delete expend pubfile;
154
```

Lines 137-145 merge the fmyall and expend datasets together and check the cost variable to make sure that there are no missing values.

Line 145 weights the cost variable up to the population level that the consumer unit represents.

Lines 147-150 sum the weighted costs for the consumer units for each ucc by income group and outputs this as a new dataset called aggcst.

Lines 152-153 delete from memory any datasets that are no longer needed for processing.

NOTE: Deleting WORK.EXPEND (memtype=DATA).  
NOTE: Deleting WORK.PUBFILE (memtype=DATA).  
NOTE: The PROCEDURE DATASETS used 0.05 seconds.

```
155 data aggray1 (drop = inclass _type_ _freq_ wcost);
156 set aggst;
157 by ucc ;
158   array trncost grp1-grp10;
159   retain grp1-grp10;
160   if first.ucc then do over trncost;
161     trncost = 0;
162   end;
163   _l_=inclass;
164   trncost=wcost;
165   if last.ucc then output;
166
```

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

163:13

NOTE: The data set WORK.AGGRAY1 has 566 observations and 11 variables.

NOTE: The DATA statement used 0.33 seconds.

```
167 data agfile;
168   infile agg misover pad;
169   input @3 ucc $6.
170         @15 line $6.;
```

NOTE: The infile AGG is:

```
FILENAME=d:\diary00\aggd00.txt,
RECFM=V,LRECL=256
```

NOTE: 776 records were read from the infile AGG.

The minimum record length was 20.

The maximum record length was 20.

NOTE: The data set WORK.AGFILE has 776 observations and 2 variables.

NOTE: The DATA statement used 0.16 seconds.

```
171   proc sort data = agfile;
172   by ucc ;
173
```

NOTE: The data set WORK.AGFILE has 776 observations and 2 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

```
174 data pubray ;
175   merge aggray1 (in = inray)
176         agfile (in = inagg);
177   by ucc;
178   if inray and inagg;
179
```

Lines 155-165 create the variables grp1-grp10 that will designate the income groups and then places the weighted cost, or expenditure, data into the appropriate new variable.

Lines 167-172 pull in the file that dictates how each ucc will be summed for aggregation.

Lines 174-178 merge the dataset containing the weighted costs and the agfile. The agfile will give all costs a code called line that will be used for aggregation.

NOTE: The data set WORK.PUBRAY has 764 observations and 12 variables.

NOTE: The DATA statement used 0.16 seconds.

```
180 proc summary nway data = pubray;
181   class line;
182   var grp1-grp10;
183   output out =aggsum sum = ;
184
```

NOTE: The data set WORK.AGGSUM has 65 observations and 13 variables.

NOTE: The PROCEDURE SUMMARY used 0.05 seconds.

```
185 data cstpop1 (drop = _type_ _freq_ popt popc pop1-
pop10);
186   if _n_ = 1 then set subagg;
187   set aggsum;
188   grpt = sum (of grp1-grp10);
189   grpc = sum (of grp1-grp9);
190   array ex grpt grpc grp1-grp10;
191   array wt popt popc pop1-pop10;
192   do over ex;
193     ex = ex/wt;
194   end;
195
```

NOTE: The data set WORK.CSTPOP1 has 65 observations and 13 variables.

NOTE: The DATA statement used 0.16 seconds.

```
196 data numcus (rename=(popt=grpt popc=grpc pop1=grp1
pop2=grp2
197           pop3=grp3 pop4=grp4 pop5=grp5 pop6=grp6
198           pop7=grp7 pop8=grp8 pop9=grp9
pop10=grp10));
199   set subagg;
200   line = '000000';
201
```

NOTE: The data set WORK.NUMCUS has 1 observations and 13 variables.

NOTE: The DATA statement used 0.11 seconds.

```
202 data cstpop;
203   set numcus cstpop1;
204   by line;
205
```

NOTE: The data set WORK.CSTPOP has 66 observations and 13 variables.

NOTE: The DATA statement used 0.11 seconds.

```
206 data addlab ;
```

Lines 180-183 sum the weighted costs for each income group (grp1-grp10) by line and output this into a new dataset called aggsum.

Lines 185-195 create two arrays. One array is a vector from the subagg dataset that contains the population counts (popt, popc pop1-pop10). The other is a matrix of the weighted costs by income group. The costs are divided by the population counts.

Lines 196-204 give the population counts a line value so that they can be printed as part of the final output, and then brings them together with the summed cost dataset that was calculated with the arrays.

Lines 206-209 pull in the label file that will

```
207 infile labs missover pad;
208 input @1 line $6. @10 title $char40.;
```

NOTE: The infile LABLS is:  
FILENAME=d:\diary00\labeld00.txt,  
RECFM=V,LRECL=256

NOTE: 64 records were read from the infile LABLS.  
The minimum record length was 56.  
The maximum record length was 57.

NOTE: The data set WORK.ADDLAB has 64 observations and 2 variables.

NOTE: The DATA statement used 0.11 seconds.

```
209 proc sort; by line;
210
```

NOTE: The data set WORK.ADDLAB has 64 observations and 2 variables.

NOTE: The PROCEDURE SORT used 0.05 seconds.

```
211 data pubtab (drop = line);
212 merge cstpop (in = inline)
213 addlab (in = inlabl);
214 by line;
215 if not inlabl then delete;
216
```

NOTE: The data set WORK.PUBTAB has 64 observations and 13 variables.

NOTE: The DATA statement used 0.11 seconds.

```
217 proc print split='*' uniform;
218 label
219 grpt=' All* Consumer* Units* _____ '
220 grpc=' Total* Complete*Reporting* _____ '
221 grp1=' Less* Than* $5,000* _____ '
222 grp2=' $5,000* To* $9,999* _____ '
223 grp3=' $10,000* To* $14,999* _____ '
224 grp4=' $15,000* To* $19,999* _____ '
225 grp5=' $20,000* To* $29,999* _____ '
226 grp6=' $30,000* To* $39,999* _____ '
227 grp7=' $40,000* To* $49,999* _____ '
228 grp8=' $50,000* To* $69,999* _____ '
229 grp9=' $70,000* And* Over* _____ '
230 grp10='Incomplete* Income*Reporters* _____ ';
231 format title $char40.;
232 format grpt grpc grp1-grp10 comma9.2;
233 id title;
234 var grpc grp1-grp9;
235 title "CE Microdata Diary Survey Average Weekly
Expenditures, for Calendar Year 20&y by Income";
236 title2 ' ';
237
238 run;
```

put titles on the final output.

Lines 211-236 merge the summed cost dataset with the titles for printing. The output is formatted and the income groups are given labels. Note that not all groups are printed – the incomplete reporters (grp10) and all consumer units (grpt).

<p>NOTE: At least one W.D format was too small for the number to be printed. The decimal may be shifted by the "BEST" format. NOTE: The PROCEDURE PRINT used 0.22 seconds.</p>	
--	--

## B. OUTPUT

The following observation shows the contents of the subagg data set created in lines 66-71. It represents the weighted number of CUs in each INCLASS category as well as for the total population and the population of complete income reporters.

### Population Counts for 2000

OBS	POP1	POP2	POP3	POP4	POP5	POP6	POP7	POP8	POP9	POP10	POPT	POPC
1	2751758.78	6108402.44	7124032.42	6157226.59	10808442.89	9404423.46	7252079.20	11033999.65	15351561.07	33014846.58	109006773.08	75991926.50

### CE Microdata Diary Survey Average Weekly Expenditures, for Calendar Year 2000 by Income

TITLE	Total Complete Reporting	Less Than \$5,000	\$5,000 To \$9,999	\$10,000 To \$14,999	\$15,000 To \$19,999	\$20,000 To \$29,999	\$30,000 To \$39,999	\$40,000 To \$49,999	\$50,000 To \$69,999	\$70,000 And Over
Number of consumer units .....	75991926	2751758.8	6108402.4	7124032.4	6157226.6	10808443	9404423.5	7252079.2	11034000	15351561
Income before taxes .....	47,514.25	2,297.85	7,643.01	12,341.80	17,186.22	24,363.34	34,223.04	44,140.13	58,915.69	117811.18
Income after taxes.....	44,193.08	2,246.86	7,613.51	12,167.83	16,948.30	23,659.37	32,653.06	41,568.03	55,270.56	106860.49
Age of reference person.....	47.54	40.27	52.94	57.82	51.78	48.51	44.43	45.46	43.47	45.33
Average number in consumer unit:										
Persons .....	2.51	1.62	1.65	1.75	2.32	2.38	2.58	2.57	2.99	3.10
Children under 18.....	0.68	0.32	0.34	0.35	0.66	0.60	0.72	0.68	0.91	0.90
Persons 65 and over.....	0.29	0.23	0.44	0.62	0.51	0.43	0.24	0.17	0.15	0.11
Earners.....	1.38	0.84	0.57	0.64	0.90	1.13	1.46	1.59	1.85	2.01
Vehicles.....	1.68	0.88	0.85	1.08	1.25	1.49	1.68	1.92	2.09	2.33
Percent distribution:										
Male .....	53.94	45.24	31.02	37.17	45.29	53.51	56.04	56.21	61.63	68.28
Female .....	46.06	54.76	68.98	62.83	54.71	46.49	43.96	43.79	38.37	31.72
Homeowner .....	64.79	32.76	38.20	56.11	57.21	54.81	62.04	67.45	77.06	86.83
Renter .....	35.21	67.24	61.80	43.89	42.79	45.19	37.96	32.55	22.94	13.17
Black .....	12.11	17.09	19.71	13.69	13.57	16.58	10.74	9.57	11.09	6.50
White and other .....	87.89	82.91	80.29	86.31	86.43	83.42	89.26	90.43	88.91	93.50
Elementary education .....	6.34	8.88	19.05	14.16	9.65	6.98	5.93	2.81	1.51	0.78
High school education .....	37.02	32.26	46.57	47.68	52.93	48.04	41.08	33.59	33.46	16.68
College education .....	56.30	57.90	32.86	38.10	36.98	44.68	52.72	63.11	65.02	82.40
Never attended and other .....	0.35	0.96	1.52	0.06	0.44	0.30	0.28	0.48	0.00	0.14
At least one vehicle owned .....	89.25	67.07	63.26	79.08	84.09	90.29	94.33	96.68	96.88	97.51
Food, total.....	96.19	44.66	44.52	54.21	68.19	81.59	92.07	112.18	115.56	148.01
Food at home.....	59.82	30.12	32.73	40.14	48.70	55.58	56.93	67.44	68.28	84.57
Cereals and cereal products.....	3.13	1.46	1.93	2.04	2.53	3.39	3.06	3.41	3.53	4.10
Bakery products.....	5.99	2.66	3.07	3.97	4.83	5.25	5.78	6.41	6.90	8.96
Beef.....	4.68	2.39	2.41	3.37	4.18	4.42	4.69	5.35	5.15	6.33

TITLE	Total Complete Reporting	Less Than \$5,000	\$5,000 To \$9,999	\$10,000 To \$14,999	\$15,000 To \$19,999	\$20,000 To \$29,999	\$30,000 To \$39,999	\$40,000 To \$49,999	\$50,000 To \$69,999	\$70,000 And Over
Pork.....	3.28	1.92	2.18	2.42	3.06	3.47	3.24	3.71	3.62	3.89
Other meats.....	2.01	1.15	1.01	1.51	1.57	2.03	2.02	2.35	2.32	2.55
Poultry.....	2.88	1.46	1.64	2.02	2.22	2.79	2.91	3.35	3.07	3.97
Fish and seafood.....	2.18	1.03	0.95	1.28	1.67	1.99	1.72	2.57	2.46	3.54
Eggs.....	0.68	0.44	0.48	0.57	0.68	0.67	0.86	0.72	0.65	0.78
Fresh milk and cream.....	2.65	1.18	1.80	2.04	2.27	2.49	2.82	2.74	2.94	3.47
Other dairy products.....	3.87	1.74	1.84	2.47	2.98	3.38	3.68	4.48	4.76	5.61
Fresh fruits.....	3.26	1.42	1.93	2.33	2.73	3.23	3.05	3.51	3.31	4.77
Fresh vegetables.....	3.20	1.49	1.86	2.18	2.58	3.08	2.92	3.41	3.40	4.76
Processed fruits.....	2.32	1.34	1.50	1.52	1.84	2.11	2.18	2.45	2.57	3.37
Processed vegetables.....	1.68	0.91	0.94	1.12	1.60	1.56	1.63	2.06	1.86	2.20
Sugar and other sweets.....	2.40	1.02	1.18	1.54	1.78	2.07	2.09	2.80	2.82	3.71
Fats and oils.....	1.64	0.83	0.98	1.19	1.43	1.72	1.53	1.84	1.87	2.11
Miscellaneous foods.....	8.85	5.04	3.91	5.35	6.78	7.23	7.79	10.05	10.96	13.66
Nonalcoholic beverages.....	5.10	2.63	3.13	3.22	4.00	4.70	4.95	6.23	6.09	6.79
Food away from home.....	36.37	14.54	11.79	14.07	19.49	26.01	35.14	44.74	47.28	63.44
Alcoholic beverages.....	7.45	4.01	2.94	4.07	3.32	5.31	6.69	6.94	9.84	13.61
Fuel and utilities .....	47.09	22.37	25.76	32.81	42.97	44.62	49.82	52.43	54.93	60.19
Housekeeping supplies .....	10.49	3.81	4.09	6.12	6.75	8.00	9.02	10.84	13.18	18.34
Household furnishings and equipment ....	37.74	14.65	7.73	16.45	10.88	17.48	23.07	43.07	52.86	84.34
Apparel and services.....	38.03	16.40	15.51	15.66	23.68	26.13	34.00	37.40	46.68	71.92
Men, 16 and over.....	7.06	3.17	2.09	2.09	4.67	5.17	6.65	5.32	8.66	14.24
Boys, 2 to 15.....	2.15	1.41	0.45	1.09	2.57	1.66	1.59	1.45	2.27	4.19
Women, 16 and over.....	12.04	4.24	4.92	4.66	6.56	7.92	9.64	14.16	14.46	23.54
Girls, 2 to 15.....	2.70	1.76	1.17	0.51	1.47	1.99	2.18	2.13	3.30	5.66
Children under 2.....	1.52	1.17	0.75	0.89	1.38	0.81	1.34	1.86	1.74	2.55
Footwear.....	7.18	3.13	4.55	3.15	4.68	5.81	7.10	7.54	8.52	11.72
Other apparel products and services...	5.37	1.51	1.58	3.26	2.35	2.77	5.50	4.93	7.73	10.01
Gasoline and motor oil .....	23.49	9.04	9.21	13.28	15.35	19.84	24.75	27.57	29.95	34.98
Non-prescription drugs and supplies ...	5.44	1.45	2.38	4.08	3.00	6.37	4.29	5.10	6.44	8.48
Entertainment .....	39.36	15.81	10.36	16.48	15.67	25.04	31.73	37.81	47.24	85.06
Fees and admissions .....	9.46	4.62	1.83	4.65	3.24	4.58	7.05	7.43	11.70	22.36
Television, radios, sound equipment ...	15.10	5.07	5.32	6.95	7.88	10.88	11.95	18.11	18.59	28.41
Pets, toys, and playground equipment ..	8.66	3.52	2.00	2.90	3.52	6.89	7.52	8.36	8.56	19.11
Other entertainment supplies, equipment	6.14	2.60	1.21	1.99	1.02	2.68	5.21	3.91	8.39	15.18
Personal care products and services.....	9.24	3.87	4.55	4.76	5.91	6.58	7.73	10.28	11.23	16.34
Miscellaneous .....	16.00	13.94	8.69	10.47	9.45	11.96	21.12	17.53	15.57	23.77

## **VIII. DESCRIPTION OF THE SURVEY**

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

1) 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.

2) 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.

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 the CU member's identity.

The Diary survey collects expenditure data for items purchased each day over two one-week periods. This survey is designed to collect expenditure data for small, frequently purchased items such as food, beverages, food consumed away from home, gasoline, housekeeping supplies, nonprescription drugs and medical supplies, and personal care products and services. Respondents are not limited to recording expense for these items only.

A Household Characteristics Questionnaire is completed to record demographic and family characteristics data pertaining to age, sex, race, marital status, and CU relationships for each CU member. 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 is collected. The expenditure collection instrument is a self-reporting, product-oriented diary on which respondents record all expenses for two consecutive one-week periods. It is divided by day of purchase and by broad classification of goods and services, a format designed to aid the respondents when recording daily purchases.

At the beginning of the two-week collection period, the interviewer uses the Household Characteristics Questionnaire to record demographic and characteristics information pertaining to CU members. Also at this time, a diary for the first week is left with the participating CU. At the completion of the first week, the interviewer picks up the diary, reviews the entries, clarifies any questions, and leaves a second diary for the following week. At the end of the second week, the diary is picked up and reviewed. At this point, the interviewer again uses the Household Characteristics Questionnaire to collect information on CU income, employment and earnings of CU members. These data, along with the other household characteristics information, permit data users to classify sample units for research purposes, and allow BLS to adjust population weights for CUs who do not cooperate in the survey.

## **IX. DATA COLLECTION AND PROCESSING**

In addition to its data collection duties, the Census Bureau 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. BUREAU OF THE CENSUS ACTIVITIES**

Data collection activities have been conducted by the Census Bureau on a continuing basis since October 1979. Due to differences in format and design, the Diary Survey and the Interview Survey data are collected and processed separately. Preliminary Diary survey data processing carried out by the Census Bureau includes keying the data from the questionnaires, clerical data editing, and correcting for inconsistencies in the collected data.

Upon completion by respondents, the diaries are sent from the regional offices to the Census National Processing Center (NPC) in Jeffersonville, IN. At the NPC, codes are applied to identify demographic characteristics and expenditures and inconsistencies and errors are identified and corrected.

After clerical processing at the NPC, the data are transmitted to the Census Processing Center in Suitland, MD, where they pass through basic quality checks of control counts, missing values, etc. The data are then electronically transmitted to BLS in Washington, DC.

## **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 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 by reviewing questionnaires on microfilm. Errors discovered through this procedure are corrected prior to release of the data.

Two major types of data adjustment routines--imputation and allocation--are carried out to improve and classify the estimates derived from the Diary Survey. Data imputation routines correct for missing or invalid entries among selected CU characteristic fields. No imputations are performed for income fields. Allocation routines are applied when respondents provided 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. To analyze the effects of these adjustments, tabulations are made before and after the data adjustments.

## **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 noninstitutional 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 2000 sample is composed of 105 areas. The design classifies the PSUs into four categories:

- 31 "A" certainty PSUs are Metropolitan Statistical Areas (MSA's) with a population greater than 1.5 million.
- 46 "B" PSUs, are medium-sized MSA's.
- 10 "C" PSUs are nonmetropolitan areas that are included in the CPI.
- 18 "D" 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 2000 survey is generated from the 1990 Population Census 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 (ED's) from the Census that fail to meet the criterion for good addresses for new construction, and all ED's in nonpermit-issuing areas are grouped into the area segment frame.

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.

Each selected sample unit is requested to keep two 1-week diaries of expenditures over consecutive weeks. The earliest possible day for placing a diary with a household is pre-designated with each day of the week having an equal chance to be the first of the reference week. The diaries are evenly spaced throughout the year. During the last 6 weeks of the year, however, the Diary Survey sample is supplemented to twice its normal size to increase the reporting of types of expenditures unique to the holidays.

## B. COOPERATION LEVELS

The annual target sample size at the United States level for the Diary Survey is 7,800 participating sample units. To achieve this target the total estimated work load is 11,275 sample units. This allows for refusals, vacancies, or nonexistent sample unit addresses.

Each participating sample unit selected is asked to keep two 1-week diaries. Each diary is treated independently, so response rates are based on twice the number of housing units sampled.

The response rate for the 2000 Diary Survey is 76.1% as shown below. This response rate refers to all diaries in the year.

Number of diaries designated for the survey	Type B or C ineligible cases	<i>Eligible housing unit interviews</i>		
		Number of potential diaries	Type A nonresponse	Total respondent interviews
24,916	4,763	20,153	4,826	15,327

Type B or C cases are housing units that are vacant, nonexistent, or ineligible for diary placement. Type A nonresponses are housing units which 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 a diary is obtained. There are four basic 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 diary if subsampling is performed in the field.
- 3) A noninterview 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 on the CU as a whole. The weight for the CU is adjusted for individuals within the CU to meet the controls for the 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 CU who own their living quarters. The weighting procedure uses an iterative process to ensure that the sample estimates will meet all the population controls.

NOTE: The weight for a consumer unit (CU) can be different for each week 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 consumer unit 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 consumer units 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 estimate.

## **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 consumer units and the average of those purchasing. (See Section V.B. for ESTIMATION OF TOTAL AND MEAN EXPENDITURES). 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 also 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 no utility expenses. Employers or insurance companies frequently pay other costs. CUs 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 noninstitutional 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) 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 an MSA. The general concept of an MSA is one of a large population nucleus together with adjacent communities which 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, Supplemental Security income, unemployment compensation, worker'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 income taxes, and other taxes.

#### Complete income reporters

The distinction between complete and incomplete income reporters is based in general on whether the respondent provides values for major sources of income, such as wages and salaries, self-employment income, and social security income. Even complete income reporters may not provide a full accounting of all income from all sources. In the current survey, CUs that report across-the-board zero income are categorized as incomplete reporters.

#### Geographic regions

Data are presented for four major regions - Northeast, Midwest, South, and West. CUs are classified by region according to the address at which the CU was residing during the time of their 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.

An underlined UCC represents 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, <sup>N(D)001</sup>(UCC) identifies a new (deleted) UCC beginning in Q001.

#### **A. EXPENDITURE UCC's ON EXPN FILE**

001000	Stocks, bonds, mutual funds
001100	Precious metals
001200	Miscellaneous investments
001400	Employment counseling & fees
002000	Savings account deposit
002100	Insurance other than health, hospital, vehicle and property

002200	Retirement plans
004000	Contributions
004100	Cash gifts
004190	Gifts not specified
005000	Alimony and child support
009000	Mortgage payment including coop
009900	Property assessment
010110	Flour
010120	Prepared flour mixes
010210	Cereal
010310	Rice
010320	Pasta, cornmeal, other cereal products
020110	White bread
020210	Bread other than white
020310	Fresh biscuits, rolls, muffins
020410	Cakes and cupcakes, fresh and other, excluding frozen
020510	Cookies, excluding refrigerated dough
020610	Crackers, excluding crumbs
020620	Bread and cracker products
020710	Doughnuts, sweet rolls, coffeecakes, fresh and other, excluding frozen
020810	Frozen refrigerated and canned bakery products, such as biscuits, rolls, muffins, cakes, cupcakes, doughnuts, pies, tarts, turnovers, and miscellaneous products, including dough and batter
020820	Pies, tarts, turnovers, fresh and other, excluding frozen
030110	Ground beef, excluding canned
030210	Chuck roast, excluding canned
030310	Round roast, excluding canned
030410	Other beef roast, excluding canned
030510	Round steak, excluding canned
030610	Sirloin steak, excluding canned
030710	Other steak, excluding canned
030810	Other beef, excluding canned
040110	Bacon
040210	Pork chops
040310	Ham, excluding canned
040410	Other pork, excluding canned
040510	Pork sausage, excluding canned
040610	Canned ham
050110	Frankfurters, excluding canned
050210	Bologna, liverwurst, salami, excluding canned
050310	Other lunchmeat
050410	Lamb and organ meats, excluding canned
050900	Mutton, goat, game
060110	Fresh and frozen whole chicken
060210	Fresh or frozen chicken parts
060310	Other poultry
070110	Canned fish, seafood and shellfish
070230	Fresh fish and shellfish
070240	Frozen fish and shellfish
080110	Eggs
090110	Fresh milk all types
090210	Cream
100110	Butter
100210	Cheese
100410	Ice cream and related products, including frozen yogurt
100510	Other dairy products, including powdered milk, and fresh, canned and non-frozen yogurt

110110	Apples
110210	Bananas
110310	Oranges
110410	Other fresh fruits
110510	Citrus fruits excluding oranges
120110	Potatoes
120210	Lettuce
120310	Tomatoes
120410	Other fresh vegetables
130110	Frozen orange juice
130121	Frozen fruits
130122	Frozen fruit juices
130211	Fresh fruit juices
130212	Canned/bottled fruit juices
130310	Canned fruits
130320	Dried fruits
140110	Frozen vegetables
140210	Canned beans
140220	Canned corn
140230	Miscellaneous canned vegetables, not collected in a separate UCC
140310	Other processed dried vegetables, such as squash, not collected in a separate UCC
140320	Dried peas
140330	Dried beans
140340	Dried carrots, onions, leafy greens, and cabbage
140410	Frozen vegetable juices
140420	Fresh/canned vegetable juices
150110	Candy and chewing gum
150211	Sugar
150212	Artificial sweeteners
150310	Jams, jellies, preserves and other sweets
160110	Margarine
160211	Fats and oils
160212	Salad dressings
160310	Non-dairy cream substitutes
160320	Peanut butter
170110	Cola drinks
170210	Other carbonated drinks
170310	Coffee, roasted
170410	Coffee, instant or freeze dried
170510	Noncarbonated fruit flavored drinks, including lemonade-non frozen
170520	Tea
170530	Other noncarbonated beverages and ice, excluding coffee and tea
180110	Soup
180210	Frozen meals
180220	Frozen prepared food other than meals
180310	Potato chips and other snacks
180320	Nuts
180410	Salt, other seasonings & spices
180420	Olives, pickles, relishes
180510	Sauces and gravies
180520	Other condiments
180611	Prepared salads
180612	Prepared desserts
180620	Baby food
180710	Miscellaneous prepared foods including items such as canned meats (see UCC's 030110 - 030810, 040410 - 040510, 050110, 050310 - 050410, 060110 - 060310), fresh and canned

ethnic foods, fresh and canned pizza  
 180720 Vitamin supplements  
 190111 Lunch at Fast Food  
 190112 Lunch at Full Service  
 190113 Lunch at Vending Machine  
 190114 Lunch at Employer  
 190115 Lunch at Board  
 190116 Lunch at Catered Affairs  
 190211 Dinner at Fast Food  
 190212 Dinner at Full Service  
 190213 Dinner at Vending Machine  
 190214 Dinner at Employer  
 190215 Dinner at Board  
 190216 Dinner at Catered Affairs  
 190311 Snacks at Fast Food  
 190312 Snacks at Full Service  
 190313 Snacks at Vend Machine  
 190314 Snacks at Employer  
 190315 Snacks at Board  
 190316 Snacks at Catered Affairs  
 190321 Breakfast at Fast Food  
 190322 Breakfast at Full Service  
 190323 Breakfast at Vending Machine  
 190324 Breakfast at Employer  
 190325 Breakfast at Board  
 190326 Breakfast at Catered Affairs  
 190911 Board at Fast Food  
 190912 Board at Full Service  
 190913 Board at Vending Machine  
 190914 Board at Employer  
 190915 Board  
 190916 Board at Catered Affairs  
 190921 Catered Affairs at Fast Food  
 190922 Catered Affairs at Full Service  
 190923 Catered Affairs at Vending Machine  
 190924 Catered Affairs at Employer  
 190925 Catered Affairs at Board  
 190926 Catered Affairs  
 200111 Beer and ale at home  
 200112 Nonalcoholic beer  
 200210 Whiskey at home  
 200310 Wine at home  
 200410 Other alcoholic beverages at home  
 200511 Beer at Fast Food  
 200512 Beer at Full Service  
 200513 Beer at Vending Machine  
 200514 Beer at Employer  
 200515 Beer at Board  
 200516 Beer at Catered Affairs  
 200521 Wine at Fast Food  
 200522 Wine at Full Service  
 200523 Wine at Vending Machine  
 200524 Wine at Employer  
 200525 Wine at Board  
 200526 Wine at Catered Affairs  
 200531 Alcoholic Beverage Excluding Beer/Wine Fast Food

200532	Alcoholic Beverage Excluding Beer/Wine Full Service
200533	Alcoholic Beverage Excluding Beer/Wine Vending Machine
200534	Alcoholic Beverage Excluding Beer/Wine at Employer
200535	Alcoholic Beverage Excluding Beer/Wine at Board
200536	Alcoholic Beverage Excluding Beer/Wine Catered Affairs
210110	Rent of dwelling, including deposit and parking fees
210210	Lodging away from home
210310	Housing for someone at school
210900	Ground or land rent
220000	Capital improvements, not specified
220110	Fire/extended coverage insurance
220120	Homeowners insurance
220210	Property taxes
220310	Contracted mortgage interest
220400	Purchase of property or real estate
220410	Home purchase
220510	Capital improvements - commodities
220610	Capital improvements - services
220900	Parking, owned dwelling
230000	Repair, maintenance, and improvements for built in dishwasher, garbage disposal, and range hood
230110	Maintenance of property, including items such as ceiling repair, black top, brick, or masonry work, air conditioner repair, roof and awning repair, house painting, papering, chimney cleaning, electrical inspection, furnace inspection and repair, wiring, pest control, carpenter, plumber, etc...
230120	Installed hard surface flooring
230130	Installed wall-to-wall carpet
230140	Repair disposal, dishwasher, range hood
230900	Maintenance fees, such as service repair of property fees, management fees, homeowners association dues, condo fees, and community pool fees
240110	Paint, wallpaper and supplies
240120	Tools and equipment for painting and papering
240210	Lumber, paneling, tile, awning, glass, plywood, doors, windows, screens, siding, roofing and fencing materials
240220	Blacktop and masonry materials
240310	Plumbing supplies, fixtures and equipment
240320	Electric heating and air conditioning supplies and equipment
240900	Soft surface floor covering
250110	Fuel oil
250210	Bottled or tank gas
250220	Coal
250900	Miscellaneous fuels, such as wood, kerosene, charcoal, oil mix for gas, lawnmower oil, lamp oil, duraflame log, and sterno
260110	Electricity
260210	Utility - natural gas
270000	Telephone service, including public pay phones
270210	Water and sewerage maintenance
270310	Community antenna or cable TV
270410	Garbage, trash collection
270900	Septic tank cleaning
270905	Steam heat
280110	Bathroom linens
280120	Bedroom linens
280130	Kitchen and dining room linens
280210	Curtains and drapes, excluding shower
280220	Slipcovers, decorative pillows, and cushions

280230	Sewing materials for slipcovers, curtains, and other home handiwork
280900	Other linens
290110	Mattress and springs
290120	Other bedroom furniture
290210	Sofas
290310	Living room chairs
290320	Living room tables
290410	Kitchen and dining room furniture
290420	Infants' furniture
290430	Patio, porch or outdoor furniture
290440	Modular wall units, shelves or cabinets, or other living room, family or rec-room furniture including desks
300110	Refrigerator, home freezer
300210	Washers
300220	Dryers
300310	Stoves, ovens
300320	Microwave ovens
300330	Portable dishwashers
300410	Window air conditioners
300900	Miscellaneous household appliances
310110	Black and white TV's, and combination of TV with other items
310120	Color TV console and combinations of TV with other items, such as TV with VCR
310130	Color TV (portable and table models) and combinations of portable model color TV with other items, such as TV with radio
310210	Video players, video recorders, video tape player, video tape recorder, video disc player, video camera receiver and recorder, and camcorder
310220	Video cassettes, tapes and discs, laser discs, reels, prerecorded and blank video cassettes, video tapes, and diskettes
310230	Video game cartridges, TV computer games and software, Atari cartridges and supplies, computer joystick, games, and game cartridges
310311	Radio, not installed in vehicles
310312	Phonograph or record player
310313	Tape recorder and player
310320	Sound components, component systems, amplifiers, receivers, turn tables, tape decks, tuners, stereos, speakers, and compact disc sound systems
310331	Miscellaneous sound equipment
310332	Sound equipment accessories
310334	Satellite dishes
310340	Records, tapes, CD's, needles, styli, and record clubs
310900	Accessories for electronic equipment
320110	Room-size rugs and other non-permanent floor coverings
320120	Venetian blinds, window shades and other window coverings
320130	Infants' equipment
320140	Laundry and cleaning equipment
320150	Outdoor equipment
320210	Clocks
320220	Lamps and other lighting fixtures
320231	Other household decorative items, including fireplace equipment and accessories
320232	Telephones and accessories
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	Nonelectric cookware

320380 Tableware, nonelectric kitchenware  
 320410 Lawnmowing equipment and other yard machinery, powered and nonpowered  
 320420 Power tools  
 320430 Other hardware, including curtain and drapery hardware, rope, portable ladders, sheds, non-permanent shelves and shelving  
 320511 Electric floor cleaning equipment  
 320512 Sewing machines  
 320521 Small electrical kitchen appliances  
 320522 Portable heating and cooling equipment  
 320610 Miscellaneous supplies and equipment, such as caulking compound, duct tape, carpet tape, carpet knife, bolts, screws, drill bits, door knobs, tool box, keys, mailbox, gutter screens, clamps, shelf brackets, tool table, work bench, etc...  
 320620 Permanent hard surface floor covering  
 320630 Landscaping items, such as grass, grass seed, trees, shrubs, plants, sod, and fork lift  
 320901 Office furniture for home use  
 320902 Non-powered tools  
 320903 Fresh flowers or potted plants  
 320904 Closet and storage items  
 320905 Miscellaneous household equipment and parts  
 320906 Electronic testing equipment  
 330110 Soaps and detergents, excluding hand soaps  
 330210 Other laundry and cleaning products  
 330310 Paper towels, napkins, toilet tissue, facial tissue  
 330410 Stationery, giftwrap and wrap accessories, greeting cards, pens, pencils, tape  
 330510 Miscellaneous household products, including paper, plastic and foil products  
 330610 Lawn and garden supplies, including outdoor plants  
 340110 Postage  
 340120 Delivery services  
 340210 Babysitting or other home care for children  
 340310 Housekeeping service, such as housekeeping, cooking, maid service, interior decorating, and carpet and upholstery cleaning services  
 340410 Gardening and lawn care services, such as mowing, tree services, fertilizing, and yard work  
 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; including stove, vacuum, washer, dryer, sewing machine, refrigerator, and calculator; excluding garbage disposal, range hood, and built-in dishwasher  
 340630 Furniture repair, refurbishing, or reupholstery  
 340901 Rental or repair of lawnmowing equipment and other yard machinery, power and non-power tools  
 340903 Miscellaneous home services and small repair jobs not already specified  
 340904 Rental of furniture  
 340906 Care for invalids, convalescents, handicapped or elderly persons in the CU  
 340907 Rental of household equipment items, such as refrigerators, home freezers, washers, microwave ovens, dishwashers, water cooler, stroller, china; excluding tools and lawn/garden equipment  
 340908 Rental of office equipment for non-business use, includes items such as calculators, typewriters, projectors, and other office machines.  
 340909 Rental of TV or radio sound equipment  
 340913 Repair and alterations of miscellaneous household equipment, furnishings, and textiles  
 350110 Tenants' insurance  
 360110 Men's suits  
 360120 Men's sportcoats and tailored jackets  
 360210 Men's coats, jackets, and furs  
 360311 Men's underwear

360312	Men's hosiery
360320	Men's sleepwear/loungewear
360330	Men's accessories
360340	Men's sweaters and vests
360350	Men's active sportswear
360410	Men's shirts
360511	Men's pants
360512	Men's shorts and shorts sets, excluding athletic
360901	Men's uniforms
370110	Boys' coats, jackets, and furs
370120	Boys' sweaters
370130	Boys' shirts
370211	Boys' underwear
370212	Boys' sleepwear/loungewear
370213	Boys' hosiery
370220	Boys' accessories
370311	Boys' suits, sportcoats, and vests
370312	Boys' pants
370313	Boys' shorts and shorts sets, excluding athletic
370901	Boys' uniforms and active sportswear
380110	Women's coats, jackets and furs
380210	Women's dresses
380311	Women's sportcoats and tailored jackets
380312	Women's vests, sweaters, and sweater sets
380313	Women's shirts, tops, and blouses
380320	Women's skirts and culottes
380331	Women's pants
380332	Women's shorts and shorts sets, excluding athletic
380340	Women's active sportswear
380410	Women's sleepwear/loungewear
380420	Women's undergarments
380430	Women's hosiery
380510	Women's suits
380901	Women's accessories
380902	Women's uniforms
390110	Girls' coats, jackets, and furs
390120	Girls' dresses and suits
390210	Girls' sport coats, tailored jackets, shirts, blouses, sweaters, sweater sets, and vests
390221	Girls' skirts, culottes, and pants
390222	Girls' shorts and shorts sets, excluding athletic
390230	Girls' active sportswear
390310	Girls' undergarments and sleepwear/loungewear
390321	Girls' hosiery
390322	Girls' accessories
390901	Girls' uniforms
400110	Men's footwear
400210	Boys' footwear
400220	Girls' footwear
400310	Women's footwear
410110	Infants' coats, jackets, and snowsuits
410120	Infants' rompers, dresses, and sweaters
410130	Infants' undergarments, including diapers
410140	Infants' sleeping garments
410901	Infants' accessories, hosiery, and footwear
420110	Sewing material 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, 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
450110	New cars
450210	New trucks, pick-ups, vans, or jeeps
450220	New motorcycles, motor scooters, or mopeds
450310	Lease payment (car lease)
450410	Lease payment (truck/pick-up/van/jeep lease)
460110	Used cars
460901	Used trucks or vans
460902	Used motorcycles, motor scooters, or mopeds
460903	Used aircraft
470111	Gasoline
470112	Diesel fuel
470114	Gasohol
470211	Motor oil
470220	Coolant/antifreeze, oil, brake & transmission fluids, additives, and radiator/cooling system protectant
480110	Tires (new, used or recapped); replacement and mounting of tires, and belting
480212	Vehicle products, such as wax, touch up paint, de-icer, protectant, polish, tar and bug remover, polish cloth, rubbing compound, auto freshner, etc...
480213	Battery replacement, floor mats, seat covers, filter, brake parts, and other equipment, supplies, parts, and accessories for auto; boating supplies and accessories
480214	Vehicle audio equipment, excluding labor
490000	Miscellaneous auto repair and servicing
490110	Body work, painting, repair and replacement of upholstery, vinyl/convertible top, and glass
490211	Clutch and transmission repair
490212	Drive shaft and rear-end repair
490220	Brake work, excluding brake adjustment
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
490315	Brake adjustment
490316	Gas tank repair and replacement
490411	Exhaust system repair
490412	Electrical system repair
490413	Motor repair and replacement
490900	Auto repair service policy
500110	Vehicle insurance
520111	Vehicle registration - state
520112	Vehicle registration - local
520310	Drivers' license
520410	Vehicle inspection
520511	Auto rental, excluding trips
520521	Truck or van rental, excluding trips
520531	Parking fees at garages, meters, and lots, excluding fees that are costs of property

ownership in home city  
 520541 Tolls  
 520550 Towing charges  
 520901 Docking and landing fees for boats and planes, boat ramp fees  
 520902 Rental of motorcycle, motor scooters, moped, etc., including mileage charges  
 520903 Rental of aircraft, including mileage charges  
 520904 Rental of non camper-type trailer, such as for boat or cycle  
 530110 Airline fares  
 530210 Intercity bus fares  
 530311 Intracity mass transit fares  
 530412 Taxi fares  
 530510 Intercity train fares  
 530901 Ship fares  
 530902 Private school bus  
 530903 Car/van pool & non-motorized transportation  
 540000 Prescription drugs and medicines  
 550110 Purchase of eye glasses or contact lenses, excluding exam fee  
 550210 Over-the-counter drugs  
 550310 Topicals and dressings, such as band aids, guaze, cotton balls/rolls  
 550320 Purchase of medical or surgical equipment for general use, such as thermometers, needles/syringes, ice bags, heating pads, (not including band aids, gauze, cotton rolls/balls)  
 550330 Purchase of supportive or convalescent medical equipment, such as crutches, wheelchairs, braces, and ace bandages  
 550340 Hearing aids  
 550410 Nonprescription vitamins  
 550900 Recreational drugs  
 560110 Physicians' services  
 560210 Dental services  
 560310 Eye exams, treatment or surgery, glass/lens service, glasses repaired  
 560330 Lab tests and x-rays  
 560400 Services by medical professionals other than physicians  
 570000 Hospital care not specified  
 570220 Care in convalescent in nursing home  
 570230 Other medical care service, such as ambulance service  
 570901 Rental of medical or surgical equipment for general use  
 570902 Repair of medical equipment  
 570903 Rental of supportive and convalescent equipment  
 580000 Hospital and health insurance not spec.  
 580110 Commercial health insurance  
 580210 Blue Cross or Blue Shield  
 580310 Health maintenance plans  
 580901 Medicare payments  
 590110 Newspapers (single copy and subscriptions)  
 590210 Magazines and periodicals (single copy and subscriptions)  
 590220 Books purchased through book clubs  
 590230 Books not purchased through book clubs  
 590900 Newsletters  
 600110 Outboard motor  
 600120 Unpowered boats, trailers  
 600130 Powered sports vehicles  
 600210 Ping pong, pool tables, other similar items, general sports equipment, and health and exercise equipment  
 600310 Bicycles  
 600410 Camping equipment  
 600420 Hunting and fishing equipment  
 600430 Winter sports equipment

600900 Water sports and miscellaneous sports equipment  
 610110 Toys, games, hobbies, tricycles, and battery powered riders  
 610120 Playground equipment  
 610130 Musical instruments and accessories  
 610210 Film  
 610220 Other photographic supplies  
 610230 Photographic equipment  
 610310 Pet food  
 610320 Pets, pet supplies and medicine for pets  
 610901 Fireworks  
 610902 Souvenirs  
 610903 Visual goods  
 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  
 620121 Fees for participant sports, such as golf, tennis, and bowling  
 620211 Admission fees for entertainment activities, including lectures, movie, theatre, concert, opera or other musical series  
 620221 Admission fees to sporting events  
 620310 Fees for recreational lessons or other instructions  
 620320 Photographer fees  
 620330 Film processing  
 620410 Pet services  
 620420 Veterinarian expenses for pets  
 620510 Miscellaneous fees for admissions  
 620610 Miscellaneous entertainment services  
 620710 Camp fees  
 620810 Rental and repair of sports, photographic and music equipment, passport fees  
 620911 Miscellaneous fees, pari-mutuel losses, and taxidermist fees  
 620912 Rental of video cassettes, tapes, and discs  
 620913 Coin-operated pinball/electronic video games  
 620915 Sport vehicle rental  
 630110 Cigarettes  
 630210 Cigars, pipe tobacco, and other tobacco products  
 630220 Smoking accessories  
 630900 Marijuana  
 640110 Hair care products  
 640120 Non-electric articles for the hair  
 640130 Wigs, hairpieces, and toupees  
 640210 Oral hygiene products, articles  
 640220 Shaving needs  
 640310 Cosmetics, perfume, cologne, bath preparations, hand soap, face and body powder, skin care products, nail preparations, manicure and eye make-up implements and accessories  
 640410 Deodorant, female hygiene products, miscellaneous personal care products and supplies  
 640420 Electrical personal care appliances  
 650110 Personal care services for females, including haircuts  
 650210 Personal care services for males, including haircuts  
 650900 Rental and repair of personal care appliances  
 660000 School supplies., etc. - unspec., including reference books not in a set  
 660110 School books, supplies, and equipment for college  
 660210 School books, supplies, and equipment for elementary and high school  
 660310 Encyclopedia and other sets of reference books  
 660900 School books , supplies, and equipment for day care center, nursery school and other  
 670110 Tuition for college  
 670210 Tuition for elementary and high school

670310	Other expenses for day care centers and nursery schools, including tuition
670901	Tuition for other schools
670902	Rentals of books and equipment, and other school-related expenses
680110	Legal fees, excluding real estate closing costs
680140	Funeral, burial or cremation expenses
680210	Safe deposit box rental
680220	Charges for checking accounts and other banking services, excluding safe deposit
680901	Purchase and upkeep of cemetery lots or vaults
680902	Accounting fees
680903	Miscellaneous personal services, advertising, fines, duplicating services
690110	Computers for non-business use, hardware and software excluding video games
690114	Computer information services
690210	Telephone answering devices
690220	Calculators
690230	Typewriters and other office machines for non-business use
999000	Home ownership expense not specified
999900	Taxes not specified
999912	Unidentifiable items - Parts 1 and 2
999935	Unidentifiable items - Parts 3, 4, and 5

NOTE: The following lists the UCCs necessary to derive expenditures for these "food away" items:

[1] for LUNCH

190111, 190112, 190113, 190114, 190115, 190116

[2] for DINNER

190211, 190212, 190213, 190214, 190215, 190216

[3] for SNACKS

190311, 190312, 190313, 190314, 190315, 190316

[4] for BREAKFAST

190321, 190322, 190323, 190324, 190325, 190326

[5] for CATERED AFFAIRS

190921, 190922, 190923, 190924, 190925, 190926

[6] for BOARD

190911, 190912, 190913, 190914, 190915, 190916

[7] for BEER

200511, 200512, 200513, 200514, 200515, 200516

[8] for WINE

200521, 200522, 200523, 200524, 200525, 200526

[9] for ALCOHOLIC BEVERAGES, EXCL. BEER AND WINE

200531, 200532, 200533, 200534, 200535, 200536

## B. INCOME AND RELATED UCC's ON DTAB FILE

\*L denotes UCC's could have negative values

	800700	Meals received as pay
	800710	Rent received as pay
	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, such as IRA's
	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 saving accounts or bonds
	900090	Supplemental security income
	900100	Unemployment compensation
	900110	Worker's compensation and veterans payments including education benefits
	900120	Public assistance or welfare including money received from job training grants such as job corps
	900131	Child support payments received
	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 of the 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
	950000	Federal income tax
*L	950001	Federal income tax refunds
	950010	State and local income tax
*L	950011	State and local income tax refunds
	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

The following UCC's contain values of 100 depending on whether the CU satisfies the condition. For example, if the CU owns the home, then UCC 980090, homeowner, will have a value of 100. These UCC's are used at BLS to compute percentages for the published tables.

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 with mortgage not reported
980260	Percent renter
980270	Percent black reference person
980280	Percent non-black 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 and other
980330	Percent vehicle owner

#### **XIV. APPENDIX 3 -- UCC AGGREGATION**

The following shows the UCC aggregation used in the sample program. This information is provided on the AGGregation and LABEL files (Section III.E.5. PROCESSING FILES)

Food	010110-190324, 200112
Food at home	010110-180720, 200112
Cereal and cereal products	010110-010320
Bakery products	020110-020820
Beef	030110-030810
Pork	040110-040610
Other meats	050110-050900
Poultry	060110-060310
Fish and seafood	070110-070240
Eggs	080110
Fresh milk and cream	090110-090210
Other dairy products	100110-100510
Fresh fruits	110110-110510
Fresh vegetables	120110-120410
Processed fruits	130110-130320
Processed vegetables	140110-140420
Sugar and other sweets	150110-150310
Fats and oils	160110-160320
Miscellaneous foods	180110-180720
Nonalcoholic beverages	170110-170530, 200112
Food away from home	190111-190324
Alcoholic beverages	200111, 200210-200513, 200516-200523, 200526-200533, 200536
Fuel and utilities	250110-270210, 270410-270905
Housekeeping supplies	330110-340120
Household furnishings and equipment	230130, 240900, 280110-300900, 320110-320522, 320620-320905, 340904, 430130, 690110, 690210-690230

Apparel and services	360110-360901, 370110-370901, 380110-380902, 390110-390901, 410110-410901, 400110-400310, 420110-430120, 440110-440900
Men, 16 and over	360110-360901
Boys, 2 to 15	370110-370901
Women, 16 and over	380110-380902
Girls, 2 to 15	390110-390901
Children under 2	410110-410901
Footwear	400110-400310
Other apparel products and services	420110-430120, 440110-440900
Gasoline and motor oil	470111-470211
Non-prescription drugs and supplies	550110-550410, 570901-570903
Entertainment	270310, 310110-310900, 340610, 340909, 520901, 520904, 600110-620111, 620121-620810, 620912- 620915
Fees and admissions	620111, 620121-620310, 620510-620710
Television, radios, sound equipment	270310, 310110-310900, 340610, 340909, 610130, 620912,
Pets, toys, and playground equipment	610110-610120, 610310-610320, 620410-620420
Other entertainment supplies, equipment	520901, 520904, 600110-600900, 610210-610230, 610901-610903, 620320-620330, 620810, 620913- 620915
Personal care products and services	640110-640120, 640210-650210,
Miscellaneous	590110-590900, 620112, 620911, 630110-630900, 660000-660900, 680110-680903

## XV. APPENDIX 4 -- FMLY AND MEMB VARIABLES ORDERED BY START POSITION

This appendix lists FMLY and MEMB variables in the order that they appear on the files. Sections III.E.1. CONSUMER UNIT (CU) CHARACTERISTICS AND INCOME FILE (FMLY) and III.E.2. MEMBER CHARACTERISTICS AND INCOME (MEMB) FILE contain detailed descriptions of these variables arranged on a functional basis.

### A. FMLY FILE

Variable	Start Position	Variable	Start Position	Variable	Start Position
NEWID	1	CUTENURE	43	EDUCA2	71
ADDFEDX	9	CUTE_URE	44	EDUCA2_	73
ADDFEDX_	17	DESCRIP	45	EMPLTYP1	74
ADDOTHX	18	DESCRIP_	47	EMPL_YP1	75
ADDOTHX_	26	DIVX	48	EMPLTYP2	76
ADDSTAX	27	DIVX_	56	EMPL_YP2	77
ADDSTAX_	35	EARNCOMP	57	FAM_SIZE	78
AGE_REF	36	EARN_OMP	58	FAM_IZE	80
AGE_REF_	38	EARNX	59	FAM_TYPE	81
AGE2	39	EARNX_	67	FAM_YPE	82
AGE2_	41	EDUC_REF	68	FBSNSX	83
BLS_URBN	42	EDUC0REF	70	FBSNSX_	91

Variable	Start Position	Variable	Start Position	Variable	Start Position
FD_STMPS	92	FS_DATE7	330	OTHRECX_	516
FD_S_MPS	93	FS_D_TE7	338	OTHREFX	517
FEDREFX	94	FS_MTHI	348	OTHREFX_	525
FEDREFX_	102	FS_MTHI_	350	OTHRNTX	526
FFARMX	103	FSS_RRX	351	OTHRNTX_	534
FFARMX_	111	FSS_RRX_	359	PENSIONX	535
FFEDTX	112	FSTATXX	360	PENS_ONX	543
FFEDTX_	120	FSTATXX_	368	PERSLT18	544
FGVX	121	FSUPPX	369	PERS_T18	546
FGVX_	129	FSUPPX_	377	PERSOT64	547
FINCAFTX	130	FWAGEX	378	PERS_T64	549
FINC_FTX	138	FWAGEX_	386	PERSTAX	550
FINCBEFX	139	HRSPRWK1	387	PERSTAX_	558
FINC_EFX	147	HRSP_WK1	390	PICK_UP	559
FINLWT21	148	HRSPRWK2	391	OCCULIS1	561
FIRAX	159	HRSP_WK2	394	OCCU_IS1	563
FIRAX_	167	INC_RNKU	395	POPSIZE	564
FJSSDEDX	168	INC_NKU	404	PTAXREFX	565
FJSS_EDX	176	INSREFX	405	PTAX_EFX	573
FPVTX	177	INSREFX_	413	RACE2	574
FPVTX_	185	INTX	414	RACE2_	575
FREMLX	186	INTX_	422	REC_FS	576
FREMLX_	194	JFS_AMT	423	REC_FS_	577
FRRX	195	JFS_AMT_	431	REF_RACE	578
FRRX_	203	JGRCFDMV	432	REF_ACE	579
FS_AMT1	204	JGRC_DMV	438	REGION	580
FS_AMT1_	212	JGRCFDWK	439	REGION_	581
FS_AMT2	213	JGRC_DWK	445	RESPSTAT	582
FS_AMT2_	221	JGROCYMV	446	RESP_TAT	583
FS_AMT3	222	JGRO_YMV	452	ROOMX	584
FS_AMT3_	230	JGROCYWK	453	ROOMX_	592
FS_AMT4	231	JGRO_YWK	459	SALEX	593
FS_AMT4_	239	LUMPX	460	SALEX_	601
FS_AMT5	240	LUMPX_	468	SEX_REF	602
FS_AMT5_	248	MARITAL1	469	SEX_REF_	603
FS_AMT6	249	MARI_AL1	470	SEX2	604
FS_AMT6_	257	NO_EARNR	471	SEX2_	605
FS_AMT7	258	NO_E_RNR	473	SMSASTAT	606
FS_AMT7_	266	NONERNX	474	SSREFX	607
FS_DATE1	276	NONERNX_	482	SSREFX_	615
FS_D_TE1	284	OCCEPNX	483	STATREFX	616
FS_DATE2	285	OCCE_PNX	491	STAT_EFX	624
FS_D_TE2	293	OCCULIS2	492	STRTDAY	625
FS_DATE3	294	OCCU_IS2	494	STRTMNTH	627
FS_D_TE3	302	ORIGIN1	495	STRTYEAR	629
FS_DATE4	303	ORIGIN1_	497	TAXPROPX	633
FS_D_TE4	311	ORIGIN2	497	TAXP_OPX	641
FS_DATE5	312	ORIGIN2_	498	TYPOWND	642
FS_D_TE5	320	OTHINX	499	TYPOWND_	643
FS_DATE6	321	OTHINX_	507	UNEMPX	644
FS_D_TE6	329	OTHRECX	508	UNEMPX_	652

Variable	Start Position	Variable	Start Position	Variable	Start Position
VEHQ	653	WTREP20	896	OTHDAIRY	1303
VEHQ_	655	WTREP21	907	FRSHFRUT	1315
WEEKI	656	WTREP22	918	FRSHVEG	1327
WEEKI_	657	WTREP23	929	PROCFRUT	1339
WEEKN	658	WTREP24	940	PROCVEG	1351
WELFRX	659	WTREP25	951	SWEETS	1363
WELFRX_	667	WTREP26	962	NONALBEV	1375
WHYNWRK1	668	WTREP27	973	OILS	1387
WHYN_RK1	669	WTREP28	984	MISCFOOD	1399
WHYNWRK2	670	WTREP29	995	FOODAWAY	1411
WHYN_RK2	671	WTREP30	1006	ALCBEV	1423
WK_WRKD1	672	WTREP31	1017	SMOKSUPP	1435
WK_W_KD1	674	WTREP32	1028	PET_FOOD	1447
WK_WRKD2	675	WTREP33	1039	PERSPROD	1459
WK_W_KD2	677	WTREP34	1050	PERSSERV	1471
WRKRSX	678	WTREP35	1061	DRUGSUPP	1483
WRKRSX_	686	WTREP36	1072	HOUSKEEP	1495
WTREP01	687	WTREP37	1083	HH_CU_Q	1507
WTREP02	698	WTREP38	1094	HH_CU_Q_	1509
WTREP03	709	WTREP39	1105	HHID	1510
WTREP04	720	WTREP40	1116	HHID_	1513
WTREP05	731	WTREP41	1127	CHILDAGE	1514
WTREP06	742	WTREP42	1138	CHIL_AGE	1515
WTREP07	753	WTREP43	1149	INCLASS	1516
WTREP08	764	WTREP44	1160	STATE	1518
WTREP09	775	FOODTOT	1171	STATE_	1520
WTREP10	786	FOODHOME	1183	CHDOTHX	1521
WTREP11	797	CEREAL	1195	CHDOTHX_	1529
WTREP12	808	BAKEPROD	1207	ALIOTHX	1530
WTREP13	819	BEEF	1219	ALIOTHX_	1538
WTREP14	830	PORK	1231	CHDLMPX	1539
WTREP15	841	OTHMEAT	1243	CHDLMPX_	1547
WTREP16	852	POULTRY	1255	POVERTY	1548
WTREP17	863	SEAFOOD	1267	POVERTY_	1549
WTREP18	874	EGGS	1279	POVLEV	1550
WTREP19	885	MILKPROD	1291	POVLEV_	1558

## B. MEMB FILE

Variable	Start Position	Variable	Start Position	Variable	Start Position
NEWID	1	ANPVTX	30	ANYRAIL_	58
AGE	9	ANPVTX_	38	ANYSSINC	59
AGE_	11	ANRRX	39	ANYS_INC	60
ANFEDTXX	12	ANRRX_	47	BSNSX	61
ANFE_TXX	20	ANSTATXX	48	BSNSX_	69
ANGVX	21	ANST_TXX	56	CU_CODE1	70
ANGVX_	29	ANYRAIL	57	CU_C_DE1	71

Variable	Start Position	Variable	Start Position	Variable	Start Position
EDUCA	72	ORIGIN	140	SUPPX_	211
EDUCA_	74	ORIGIN_	141	US_SUPP	212
EMPLTYPE	75	PVTX	142	US_SUPP_	213
EMPL_YPE	76	PVTX_	150	WAGEX	214
FARMX	77	RACE	151	WAGEX_	222
FARMX_	85	RACE_	152	WHYNOWRK	223
FEDTXX	86	RRX	153	WHYN_WRK	224
FEDTXX_	94	RRX_	161	WKS_WRKD	225
GROSPAYX	95	SCHLNCHQ	162	WKS__RKD	227
GROS_AYX	103	SCHL_CHQ	164	SS_RRQ	228
GVX	104	SCHLNCHX	165	SS_RRQ_	232
GVX_	112	SCHL_CHX	173	SOCRFX	233
HRSPERWK	113	SEX	174	SOCRFX_	241
HRSP_RWK	116	SEX_	175	ARM_FORC	242
IRAX	117	SLFEMPSS	176	ARM__ORC	243
IRAX_	125	SLFE_PSS	182	IN_COLL	244
JSSDEDX	126	SS_RRX	183	IN_COLL_	245
JSSDEDX_	132	SS_RRX_	191	MEDICARE	246
MARITAL	133	STA_SUPP	192	MEDI_ARE	247
MARITAL_	134	STA_UPP	193	PAYPERD	248
MEMBNO	135	STATXX	194	PAYPERD_	249
OCCULIST	137	STATXX_	202		
OCCU_IST	139	SUPPX	203		

## APPENDIX 5--PUBLICATIONS AND DATA RELEASES FROM THE CONSUMER EXPENDITURE SURVEY

Consumer Expenditures in 2000, Report 958 (2002)	Consumer unit income and expenditures, integrated data from Diary and Interview Surveys, classified by consumer unit characteristics. 10 tables. Available on request (202) 691-6900.
Consumer Expenditure Survey, 1998-99, Report 955 (November, 2001)	Consumer unit income and expenditures, integrated data from Interview and Diary Surveys, classified by consumer unit characteristics: one way and cross tabulations, relative and aggregate shares. 64 tables.
Consumer Expenditures in 1999, Report 949 (2001)	Consumer unit income and expenditures, integrated data from Diary and Interview Surveys, classified by consumer unit characteristics. 10 tables. Available on request (202) 691-6900.
Consumer Expenditures in 1998, Report 940 (February 2000)	Consumer unit income and expenditures, integrated data from Diary and Interview Surveys, classified by consumer unit characteristics. 10 tables. Available on request (202) 691-6900.
Consumer Expenditure Survey, 1996-97, Report 935 (September 1999)	Consumer unit income and expenditures, integrated data from Interview and Diary Surveys, classified by consumer unit characteristics: one way and cross tabulations, relative and aggregate shares. 64 tables.
Consumer Expenditures in 1997, Report 927 (1999)	Consumer unit income and expenditures, integrated data from Diary and Interview Surveys, classified by consumer unit characteristics. 10 tables. Available on request (202) 691-6900.

For information on the availability of prior publications, please contact us at (202) 691-6900 or e-mail us at [CEXinfo@bls.gov](mailto:CEXinfo@bls.gov).

### CONSUMER EXPENDITURE SURVEY DATA ON THE INTERNET

Commonly-requested CE data tables can be found on-line at <http://www.bls.gov/cex/>. 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 1984-2000  
*Expenditure Shares Tables* from 1998-2000  
*Aggregate Expenditure Shares Tables* from 1998-2000

#### Two Year Tables

*Cross-Tabulated Tables* from 1986-2000  
*Metropolitan Statistical Area Tables* from 1986-2000  
*Region Tables* from 1998-2000  
*High Income Tables* from 1998-2000  
*Multi-Year Tables* for 1984-1992 and 1993-2000

## **FAX ON DEMAND - FAXSTAT**

FAXSTAT contains information and data that may be faxed to users from a touch-tone phone 24 hours a day -- 7 days a week. To receive FAXSTAT transmissions dial (202) 691-6325 and follow the voice prompts. CE data that are accessible on FAXSTAT are for the most recent year available

## **PUBLIC-USE TAPES**

Public-use microdata tapes for the Diary and Interview Surveys are available for single years from 1984 to 1995, and as two-year tapes for 1982-83 and 1980-81. Seven public-use tapes are available from the 1972-73 survey including Diary Survey, detailed food quantity tapes; and integrated adjusted Quarterly Interview Survey- Summary, Detailed, Consumer Durables, and Clothing and Household Textiles tapes. Information about the tapes is available from the BLS national office. (See Section XVII. INQUIRIES, SUGGESTIONS, AND COMMENTS)

## **CD-ROMS**

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 1994-2000. The 1980-81 through 2000 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 1994-2000 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-present) that are found on the Consumer Expenditure Survey web site (<http://www.bls.gov/cex>).

## **XVII. 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](mailto:cexinfo@bls.gov).

Written suggestions and comments should be forwarded to:

Division of Consumer Expenditure Surveys  
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 files.