2002 CONSUMER EXPENDITURE DIARY SURVEY
PUBLIC USE MICRODATA
DOCUMENTATION

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

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I. INTRODUCTION

The Consumer Expenditure Survey (CE) program provides a continuous and comprehensive flow of data on the buying habits of American consumers. These data are used widely in economic research and analysis, and in support of revisions of the Consumer Price Index. To meet the needs of users, the Bureau of Labor Statistics (BLS) produces population estimates (for consumer units 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 2002. 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 2002 from the Diary survey, integrated with data from the Interview survey, are published in *Consumer Expenditures in 2002 (Due in 2003).* 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, 2002”.

II. CHANGES FROM THE 2001 MICRODATA FILES

FMLY File

1. The following new variables were added to the Diary FMLY files beginning 2002Q1.

Name	Start Position	Format
INC_RANK	1559	NUM(9,7)
INC__ANK	1568	CHAR(1)
CUID	1559	NUM(7)

MEMB File
There were no changes to the MEMB file

EXPN File
There were no changes to the EXPN file.

III. FILE INFORMATION

The microdata on the CD-ROM are available as SAS data sets or ASCII text files. The 2002 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:\DIARY02\FMLYD021.txt (Diary FMLY file for first quarter, 2002)
X:\DIARY02\MEMBD021.txt (Diary MEMB file for first quarter, 2002)
X:\DIARY02\EXPND021.txt (Diary EXPN file for first quarter, 2002)
X:\DIARY02\DTABD021.txt (Diary DTAB file for first quarter, 2002)
X:\DIARY02\FMLYD022.txt (etc.)
X:\DIARY02\MEMBD022.txt
X:\DIARY02\EXPND022.txt
X:\DIARY02\DTABD022.txt
X:\DIARY02\FMLYD023.txt
X:\DIARY02\MEMBD023.txt
X:\DIARY02\EXPND023.txt
X:\DIARY02\DTABD023.txt
X:\DIARY02\FMLYD024.txt
X:\DIARY02\MEMBD024.txt
X:\DIARY02\EXPND024.txt
X:\DIARY02\DTABD024.txt
X:\DIARY02\UCCD02.txt
```

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

```
X:\DIARY02\FMLD021.sd2  (Diary FMLY file for first quarter, 2002)
X:\DIARY02\MEMD021.sd2  (Diary MEMB file for first quarter, 2002)
X:\DIARY02\EXPD021.sd2  (Diary EXPN file for first quarter, 2002)
X:\DIARY02\DTBD021.sd2  (Diary DTAB file for first quarter, 2002)
X:\DIARY02\FMLD022.sd2  (etc.)
X:\DIARY02\MEMD022.sd2
X:\DIARY02\EXPD022.sd2
X:\DIARY02\DTBD022.sd2
X:\DIARY02\FMLD023.sd2
X:\DIARY02\MEMD023.sd2
X:\DIARY02\EXPD023.sd2
X:\DIARY02\DTBD023.sd2
X:\DIARY02\FMLD024.sd2
X:\DIARY02\MEMD024.sd2
X:\DIARY02\EXPD024.sd2
X:\DIARY02\DTBD024.sd2
X:\DIARY02\UCCD02.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:

ASCII data set	SAS data set	2002 LRECL	2002 Record Count
FMLYD021.txt	FMLD021.sd2	1575	4014
MEMBD021.txt	MEMD021.sd2	249	10278
EXPND021.txt	EXPD021.sd2	40	159484
DTABD021.txt	DTBD021.sd2	28	60631
FMLYD022.txt	FMLD022.sd2	1575	3837
MEMBD022.txt	MEMD022.sd2	249	9797
EXPND022.txt	EXPD022.sd2	40	150658
DTABD022.txt	DTBD022.sd2	28	57605
FMLYD023.txt	FMLD023.sd2	1575	3960
MEMBD023.txt	MEMD023.sd2	249	10016
EXPND023.txt	EXPD023.sd2	40	149721
DTABD023.txt	DTBD023.sd2	28	59742
FMLYD024.txt	FMLD024.sd2	1575	3880
MEMBD024.txt	MEMD024.sd2	249	10037
EXPND024.txt	EXPD024.sd2	40	151371
DTABD024.txt	DTBD024.sd2	28	58237

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(Y011) indicates the variable is deleted starting with the data file of the first quarter of 2002.

*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, 1 through 9999999) uniquely identify the CU. Digit 8 is the week number, 1 or 2 BLS derived	1	NUM(8)
*CUID	CU sequence number which uniquely identifies Cus (Digits 1-7 of NEWID) **(N021)**	1569	NUM(7)
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	559	CHAR(2)

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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[1] 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[1] 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[1].

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[1].

[1] 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 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	43	CHAR(1)
CUTE_URE		44	CHAR(1)
FAM_SIZE	Number of members in CU BLS derived	78	NUM(2)

FAM__IZE		80	CHAR(1)
PERSLT18	Number of children less than 18 in CU BLS derived	544	NUM(2)
PERS_T18		546	CHAR(1)
PERSOT64	Number of persons over 64 in CU BLS derived	547	NUM(2)
PERS_T64		549	CHAR(1)
CHILDAGE	Age of children of reference person CODED 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	1514	CHAR(1)
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 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	81	CHAR(1)
FAM__YPE		82	CHAR(1)
NO_EARNR	Number of earners BLS derived	471	NUM(2)
NO_E_RNR		473	CHAR(1)

EARNCOMP	Composition of earners CODED 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	57	CHAR(1)
EARN_OMP		58	CHAR(1)
VEHQ	How many automobiles, trucks, or other vehicles do you own? S02 4B	653	NUM(2)
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) 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	1516	CHAR(2)
RESPSTAT	Completeness of income response CODED 1 Complete income respondent 2 Incomplete income respondent BLS derived	582	CHAR(1)
RESP_TAT		583	CHAR(1)
INC_RNKU	Weighted cumulative percent income ranking of CU to total population of non-rural CUs. Ranking based on income before taxes for complete reporters. Rank of incomplete income reporters is set to zero. BLS derived	395	NUM(9,7)
INC__NKU		404	CHAR(1)
*INC_RANK	Weighted cumulative percent income ranking of CU to total	1559	NUM(9,7)

	population (rural and non-rural CUs). Ranking based on income before taxes for complete reporters. Rank of incomplete income reporters is set to zero. BLS derived **(N021)**		
*INC__ANK	**(N021)**	1568	CHAR(1)
POVERTY	Is CU income below current year's poverty threshold? (Income is defined as FINCBEFX - JFS_AMT) CODED 1 Yes 2 No BLS derived	1548	CHAR(1)
POVERTY_		1549	CHAR(1)
POVLEV	Poverty level threshold for this CU BLS derived	1550	NUM (8)
POVLEV_		1558	CHAR (1)

c. *CHARACTERISTICS OF REFERENCE PERSON AND SPOUSE*

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
AGE_REF	Age of reference person BLS derived	36	NUM(2)
AGE_REF_		38	CHAR(1)
REF_RACE	Race of reference person CODED 1 White 2 Black 3 American Indian, Aleut, or Eskimo 4 Asian or Pacific Islander BLS derived	578	CHAR(1)
REF__ACE		579	CHAR(1)
SEX_REF	Sex of reference person CODED 1 Male 2 Female BLS derived	602	CHAR(1)
SEX_REF_		603	CHAR(1)

MARITAL1	Marital status of reference person CODED 1 Married 2 Widowed 3 Divorced 4 Separated 5 Never married BLS derived	469	CHAR(1)
MARI_AL1		470	CHAR(1)
ORIGIN1	Origin or ancestry of reference person 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 BLS derived	495	CHAR(1)
ORIGIN1_		497	CHAR(1)
EDUC_REF	Education of reference person 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	68	CHAR(2)
EDUC0REF		70	CHAR(1)
AGE2	Age of spouse	39	NUM(2)

	BLS derived		
AGE2_		41	CHAR(1)
RACE2	Race of spouse CODED - same as REF_RACE BLS derived	574	CHAR(1)
RACE2_		575	CHAR(1)
SEX2	Sex of spouse CODED - same as SEX_REF BLS derived	604	CHAR(1)
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*

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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	561	CHAR(2)

	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 BLS derived		
OCCU_IS1		563	CHAR(1)
EMPLTYP1	Employer from which reference person received the most earnings in past 12 months 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	74	CHAR(1)
EMPL_YP1		75	CHAR(1)
WHYNWRK1	Reason reference person did not work during the past 12 months 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	668	CHAR(1)
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. BLS derived	675	NUM(2)
WK_W_KD2		677	CHAR(1)
HRSPRWK2	Number of hours usually worked per week by spouse BLS derived	391	NUM(3)
HRSP_WK2		394	CHAR(1)
OCCULIS2	Job in which spouse received the most earnings during the past 12 months CODED - same as OCCULIS1 S04A 4a	492	CHAR(2)
OCCU_IS2		494	CHAR(1)
EMPLTYP2	Employer from which spouse received the most earnings during the past 12 months CODED - Same as EMPLTYP1 BLS derived	76	CHAR(1)
EMPL_YP2		77	CHAR(1)
WHYNWRK2	Reason spouse did not work during the past 12 months CODED - same as WHYNWRK1 BLS derived	670	CHAR(1)
WHYN_RK2		671	CHAR(1)
OCCEXPNX	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? S04B 5	483	NUM(8)
OCCE_PNX		491	CHAR(1)

e. ***INCOME***

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
FINCBEFX	Amount of CU income before taxes in past 12 months (UNEMPX + WRKRSX + WELFRX + INTX +DIVX + PENSIONX + ROOMX + OTHRNTX + CHDOTHX + ALIOTHX + 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 12 months (FSS_RRX + FSUPPX + UNEMPX + WRKRSX + WELFRX + INTX + DIVX + PENSIONX + ROOMX + OTHRNTX + CHDOTHX + ALIOTHX + OTHINX + JFS_AMT) *L BLS derived	474	NUM(8)
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) BLS derived	378	NUM(8)
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) *L BLS derived	83	NUM(8)

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) *L BLS derived	103	NUM(8)
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) BLS derived	351	NUM(8)
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) BLS derived	369	NUM(8)
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? S04B 1a	644	NUM(8)
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? S04B 1b	678	NUM(8)
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? S04B 1c	659	NUM(8)
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? *L	584	NUM(8)
	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? *L	526	NUM(8)
	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?	499	NUM(8)
	S04B 2c		
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?	1521	NUM(8)
	S04B 1h(2)		
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	1530	NUM(8)

members?

S04B 1i(2)

ALIOTHX_		1538	CHAR(1)
JFS_AMT	Annual value of Food Stamps received by CU JFS_AMT = 12 X sum of (FS_AMT1 ... FS_AMT7) 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*

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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?	607	NUM(8)

	S04B 3c		
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

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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? S04B 4c	633	NUM(8)
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) BLS derived	112	NUM(8)
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? S04B 4a	9	NUM(8)
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? S04B 3a	94	NUM(8)
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) BLS derived	360	NUM(8)
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? S04B 4b	27	NUM(8)
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? S04B 3b	616	NUM(8)
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? S04B 4d	18	NUM(8)
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

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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 *(Date in 9b)* - 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 S04B 9b	276	NUM(8)
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*

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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? S04B 6b	186	NUM(8)
FREEMLX_		194	CHAR(1)
JGROCYMV	Monthly expenditure for grocery store purchases BLS derived	446	NUM(6)

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_

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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)	148	NUM(11,3)
	BLS derived		

The following are the 44 half sample replicate weights, WTREP01 through WTREP44, which are used for variance computation. They are all BLS derived variables.

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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	896	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, ^{N011}<UCC> or ^{D011}<UCC> identifies a new or deleted UCC for a given summary expenditure variable beginning in Q011.

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
FOODTOT	Food, total FOODHOME + FOODAWAY	1171	NUM(12,5)

FOODHOME	Food at home, total CEREAL + BAKEPROD + BEEF + PORK + OTHMEAT + POULTRY + SEAFOOD + EGGS + MILKPROD + OTHDAIRY + FRSHFRUT + FRSHVEG + PROCVEG + SWEETS + NONALBEV + OILS + MISCFOOD + PROCFRUT	1183	NUM(12,5)
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, 1 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 *(reference person)*? 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 2 Female S01 6	174	CHAR(1)
SEX_		175	CHAR(1)
MARITAL	Is the member now . . . ? (Marital status) CODED 1 Married 2 Widowed 3 Divorced 4 Separated 5 Never married S01 12	133	CHAR(1)
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 S01 11	140	CHAR(1)
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	72	CHAR(2)

	41 Associate's degree (occupational/vocational) 42 Associate's degree (academic) 43 Bachelor's degree 44 Master's degree 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 . . .? CODED 1 Full time 2 Part time 3 Not at all S01 13b	244	CHAR(1)
IN_COLL_		245	CHAR(1)
ARM_FORC	Is member now in the Armed Forces? CODED 1 Yes 2 No S01 14	242	CHAR(1)
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? S02 5b(d)	162	NUM(2)
SCHL_CHQ		164	CHAR(1)
SCHLNCHX	What is the usual weekly expense for the meals the member purchased at school? S02 5b(c)	165	NUM(8)
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. S04A 2	225	NUM(2)
WKS__RKD		227	CHAR(1)
HRSPERWK	In the weeks that the member worked, how many hours did the member usually work per week? S04A 3	113	NUM(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 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	137	CHAR(2)
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. CODED	75	CHAR(1)

	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 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	223	CHAR(1)
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	248	CHAR(1)

	S04A 10a		
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 loss from the member’s own farm after expenses? *L S04A 6c	77	NUM(8)
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 S04A 7a	59	CHAR(1)
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 S04A 7b	57	CHAR(1)
ANYRAIL_		58	CHAR(1)
SOCRRX	Annual amount of Social Security and Railroad Retirement income received by member in past 12 months BLS derived	233	NUM(8)
SOCRRX_		241	CHAR(1)
SS_RRX	What was the amount of the last Social Security or Railroad Retirement payment received? (In past 12 months) S04A 7d	183	NUM(8)
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 S04A 7e	246	CHAR(1)
MED_CARE		247	CHAR(1)
SS_RRQ	During the past 12 months, how many Social Security or Railroad Retirement payments did the member receive? S04A 7f	228	NUM(4)
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*

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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*

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
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) BLS derived	30	NUM(8)
ANPVTX_		38	CHAR(1)
PVTX	How much was deducted from the member's last pay for private pension fund? S04A 10f	142	NUM(8)
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) S04A 13b	117	NUM(8)
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.

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
NEWID	CU identification number. Digits 1-7 (CU sequence number, 1 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 BLS derived	22	CHAR(1)
PUB_FLAG	Is cost included in published reports? CODED 1 Not published 2 Published in Integrated reports BLS derived	23	CHAR(1)
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) BLS derived	24	CHAR(10)
QREDATE_		34	CHAR(1)
UCC	Universal Classification Code See Section XIII.A. Appendix A for a listing of EXPN UCC	35	CHAR(6)

codes and titles

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.

VARIABLE	ITEM DESCRIPTION	START POSITION	FORMAT
NEWID	CU identification number. Digits 1-7 (CU sequence number, 1 through 9999999) uniquely identify the CU. Digit 8 is the week number, 1 or 2 BLS derived	1	NUM(8)
UCC	Universal Classification Code See Section XIII for a listing of DTAB UCC codes and titles BLS derived	9	CHAR(6)
AMOUNT	Amount of UCC BLS derived	15	NUM(12)
AMOUNT_	 CODED T – Topcoded Blank -- Not topcoded BLS derived	27	CHAR(1)
PUB_FLAG	Is amount included in published reports? CODED 1 Not published 2 Published in Integrated reports BLS derived	28	CHAR(1)

5. ***PROCESSING FILES***

a. Dstub file

X:\Programs\Dstub.txt

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

DESCRIPTION	START POSITION	FORMAT
Type: represents whether information in this line contains aggregation data or not	1	CHAR(1)
Level: aggregation level (lowest number is highest level of aggregation)	4	CHAR(1)
Title: title of the line item	7	CHAR(60)
UCC: UCC number in the MTAB or ITAB file	70	CHAR(6)
Survey: Indicates survey source (I = interview, G = Aggregated item)	80	CHAR(1)
Group: Indicates if the item is and expenditure, income, or asset	86	CHAR(7)

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

b. UCC file

X:\DIARY02\UCCD02.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 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)	8	CHAR(50)

c. Sample program file

X:\Programs\ SAS (mlf) Diary Mean and SE

The sample program 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.

Variable	2002 Upper critical value	2002 Lower critical value	2002 Upper topcode value	2002 Lower topcode value
ALIOTHX	24000	-	69113	-
CHDLMPX	7656	-	10000	-
CHDOTHX	14400	-	24612	-
DIVX	50000	-	237400	-
FEDREFX	6000	-	10775	-
INSREFX	1700	-	20582	-
INTX	35000	-	58750	-
LUMPX	100000	-	184000	-
OCCEXPNX	1975	-	5795	-
OTHINX	25000	-	34720	-
OTHREFX	1600	-	5550	-
OTHRNTX	44400	-13000	75763	-27500
PENSIONX	50000	-	83885	-
PTAXREFX	1800	-	3233	-
ROOMX	31800	-4000	84600	-8000
SALEX	5200	-	8471	-
SSREFX	1000	-	2394	-
STATREFX	1800	-	3375	-
TAXPROPX	1800	-	3575	-
ADDFEDX	25000	-	68689	-
ADDOTHX	5300	-	12546	-
ADDSTAX	6000	-	14105	-
AGE_REF	80	-	85	-
AGE2	80	-	84	-

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 (-$28,000). The topcode value for BSNSX is $466,600 (-$220,000).

		BSNSX		**FBSNSX**	
CU		*REPORTED*	*AFTER TOPCODING*	*VALUE*	*FLAGGED AS TOPCODED?*
CU 1:	MEMB1	$145,000	$145,000		
	MEMB2	145,000	145,000		
	MEMB3	20,000	20,000	310,000	No
CU 2:	MEMB1	350,000	466,600		
	MEMB2	-15,000	-15,000		
	MEMB3	-29,000	-220,000	231,600	Yes
CU 3	MEMB1	160,000	466,600		
	MEMB2	130,000	130,000	596,600	Yes
CU 4	MEMB1	140,000	140,000		
	MEMB2	140,000	140,000		
	MEMB3	-300,000	-220,000	60,000	Yes

While CUs 1 and 2 each originally report $310,000 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 ($596,600) 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. 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-à-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
[RR]04	Arizona	31	Nebraska
*05	Arkansas	[R]32	Nevada
**06	California	[R]33	New Hampshire
08	Colorado	34	New Jersey

09	Connecticut
10	Delaware
[R]11	District of Columbia
**12	Florida
**13	Georgia
15	Hawaii
16	Idaho
**17	Illinois
[RR]**18	Indiana
*19	Iowa
**20	Kansas
21	Kentucky
22	Louisiana
[R]*23	Maine
24	Maryland
25	Massachusetts
**26	Michigan
**27	Minnesota
*35	New Mexico
[RR]**36	New York
**37	North Carolina
[RR]39	Ohio
**40	Oklahoma
**41	Oregon
42	Pennsylvania
45	South Carolina
*46	South Dakota
**47	Tennessee
48	Texas
49	Utah
50	Vermont
**51	Virginia
**53	Washington
[R]54	West Virginia
55	Wisconsin

* 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[1] 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[1] 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[1].

[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[1].

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

States not listed are not in the CE sample.

B. MEMBER CHARACTERISTICS AND INCOME FILE (MEMB)

The following 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.

Variable	2002 Upper critical Value	2002 Lower critical Value	2002 Upper topcode value	2002 Lower topcode value
AGE	80	-	85	-
ANFEDTXX	21739	-	36020	-
ANGVX	7000	-	9232	-
ANPVTX	12500	-	17483	-
ANRRX	5600	-	7153	-
ANSTATXX	7200	-	11844	-
BSNSX	150000	-28000	466600	-220000
FARMX	100000	-9999	215000	-14600
FEDTXX	1000	-	14859	-
GROSPAYX	5200	-	111419	-
GVX	427	-	572	-
IRAX	15028	-	28300	-
JSSDEDX	7279	-	10138	-
PVTX	600	-	1839	-
RRX	340	-	364	-
SLFEMPSS	14008	-	19148	-
STATXX	314	-	1830	-
WAGEX	150000	-	223123	-

The variable FARMX 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) ANFEDTXX = (WAGEX (FEDTXX/GROSPAYX)).

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

(2) WAGEX = (ANFEDTXX (GROSPAYX/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.

UCC	Description
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.

Variable	2002 Upper critical value	2002 Lower critical value	2002 Upper topcode value	2002 Lower topcode value	
001000	1484	-	5162	-	(ALLOC EQ '2' OR ALLOC EQ '3')
009000	2560	-	3494	-	(ALLOC EQ '2' OR ALLOC EQ '3')
210110	1500	-	1907	-	(ALLOC EQ '2' OR ALLOC EQ '3')
210210	315	-	461	-	(ALLOC EQ '2' OR ALLOC EQ '3')
550320	93	-	179	-	(ALLOC EQ '2' OR ALLOC EQ '3')
550330	170	-	1139	-	(ALLOC EQ '2' OR ALLOC EQ '3')
560110	225	-	489	-	(ALLOC EQ '2' OR ALLOC EQ '3')

560210	905	-	1304	-	(ALLOC EQ '2' OR ALLOC EQ '3')
560310	250	-	449	-	(ALLOC EQ '2' OR ALLOC EQ '3')
560330	261	-	569	-	(ALLOC EQ '2' OR ALLOC EQ '3')
560400	192	-	366	-	(ALLOC EQ '2' OR ALLOC EQ '3')
570000	610	-	1513	-	(ALLOC EQ '2' OR ALLOC EQ '3')

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.

Variable	2002 Upper critical value	2002 Lower critical value	2002 Upper topcode value	2002 Lower topcode value	
210310	1961	-	-	-	(ALLOC EQ '2' OR ALLOC EQ '3')
210900	-	-	-	-	(ALLOC EQ '2' OR ALLOC EQ '3')
220400	451000	-	-	-	-
570220	6375	-	-	-	(ALLOC EQ '2' OR ALLOC EQ '3')
570230	173	-	-	-	(ALLOC EQ '2' OR ALLOC EQ '3')
570901	137	-	-	-	(ALLOC EQ '2' OR ALLOC EQ '3')

D. INCOME FILE (DTAB)

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

UCC	Description
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 of state/local income tax paid
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.

Variable	2002 Upper critical Value	2002 Lower critical Value	2002 Upper topcode value	2002 Lower topcode value
900080	35000	-	58750	-
900131	14400	-	24612	-
900132	24000	-	69113	-
900140	25000	-	34720	-
910000	100000	-	184000	-
910010	5200	-	8471	-
910020	4800	-	-	-
910030	1700	-	20582	-
910040	1800	-	3233	-
910041	7556	-	9414	-
950001	-	-6000	-	-10775
950011	-	-1800	-	-3375
950021	5300	-	12546	-
950022	1800	-	3575	-
950023	-	-1600	-	-5550
980020	80	-	85	-

[1] ADDFEDX (amount of Federal tax paid in addition to that withheld) and FFEDTXX (Federal tax withheld from last pay annualized for all CU members) are both mapped to UCC 950000 as separate records. Records for UCC 950000 that represent FFEDTXX are topcoded through their components (ANFEDTXX) at the MEMB level and thus, these records will not have a DTAB critical value. DTAB records for UCC 950000 that represent ADDFEDX are topcoded for all amounts greater than $29,000.

[2] ADDSTAX (amount of state and local taxes paid in addition to that withheld) and FSTATXX (state and local income tax deduction from last pay annualized for all CU members) are both mapped to UCC 950010 as separate records. Records for UCC 950010 that represent FSTATXX are topcoded through their components (ANSTATXX) at the MEMB level and thus, these records will not have a DTAB critical value. Create the DTAB VALUE field for these records by dividing FSTATXX by 12. If FSLTAXX is topcoded, then set VALUE_ to 'T'. DTAB records for UCC 950010 that represent ADDSTAX are topcoded for all amounts greater than $6,265.

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.)

UCC	FMLY variable	Description
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 2002* (*Pending in 2003*) 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.

<u>Definition of Terms:</u>

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

$\overline{X}_{(S,k)(q,r)}$ 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 $X_{(S,k)(12,6)}$.

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

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

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

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, $\overline{X}_{(S,k)(12,6)}$, 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

$$\overline{X}_{(S,k)(12,6)} = \frac{3\left(\frac{12}{6}\right)\sum_{t=1}^{6}\left(\sum_{j=1}^{n}\left(\frac{D_{(t)}}{7}\right)W_{(j,t,F21)}X_{(j,k,t)}\right)_{t}}{\dfrac{3\sum_{t=1}^{6}\left(\sum_{j=1}^{n}W_{(j,t,F21)}\right)_{t}}{6}} \tag{2a}$$

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 $\overline{X}_{(S,k)(q,k)}$, (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:

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

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 $\overline{X}_{(S,k)(q,r)}$.

The estimates for total ($X_{(S,k)(q,r)}$) and mean expenditures ($\overline{X}_{(S,k)(q,r)}$) 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 $\overline{X}_{(S,k)(q,r)}$ 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 $\overline{Z}_{(S,r)}$ 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

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

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^{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^{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:

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

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

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

and

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

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

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

The standard error of the mean, *S.E.*($\overline{X}$), is defined as the square root of the variance of the mean. *S.E.*($\overline{X}$), 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 1.96 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 2002 was $4.58. The standard error for this estimate is $0.10. Hence, the 95 percent confidence interval around this estimate is from $4.34 to $4.77. Therefore, we could conclude with 95 percent confidence that the mean weekly expenditures for beef for total complete income reporters in 2002 lies within the interval $4.34 to $4.77.

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 2002 the estimated average weekly expenditures for total food for complete income reporters in the *$30,000 to $39,999* income range is $87.95 and the estimate for complete income reporters in the *$40,000 to $49,999* income range is $98.58. The apparent difference between the two mean expenditures is $98.58 – $87.95 = $10.63. The standard error on the estimate of $98.58 is $3.12 and the estimated standard error for the $87.95 estimate is $2.68. The standard error (S.E.) of a difference is approximately equal to

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

where

$$V(\overline{X}_i) = \left(S.E.(\overline{X}_i)\right)^2$$

This assumes that $\overline{X}_1$ and $\overline{X}_2$ 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

$$\sqrt{\left((3.12)^2 + (2.68)^2\right)} = 4.11$$

This means that the 95 percent confidence interval around the difference is from $2.57 to $18.68. 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

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

where

$$V(\overline{X}_i) = \left(S.E.(\overline{X}_i)\right)^2$$

and where *r* is the correlation coefficient between $\overline{X}_1$ and $\overline{X}_2$. 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 shows usage of the SAS datasets available on the SAS CD-ROM. A program written in SAS but utilizing the ASCII datasets is present on the ASCII CD-ROM but will not be referenced here. Refer to the output file on the CD 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 FMLY 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 Dstub processing file to construct the sample table output. This output is the product of two SAS arrays. The values in one array are divided by the value in the other array to obtain weighted mean expenditures. The base, or denominator, for the division is a vector consisting of the weighted total population for the U.S. and selected income class categories. The numerator is a matrix of aggregate weighted costs for each line item in the table for the total U.S. population and each income class category.

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

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

SAMPLE PROGRAM

```
NOTE: Copyright (c) 1999 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Version 8 (TS M0)
      Licensed to BUREAU OF LABOR STATISTICS, Site 0034757167.
NOTE: This session is executing on the WIN_PRO  platform.



NOTE: SAS initialization used:
      real time           3.60 seconds
      cpu time            0.56 seconds

     /***********************************************************************/
     /* PROGRAM NAME:  CEX DIARY SURVEY SAMPLE PROGRAM (SAS)                */
     /* LOCATION: D:\PROGRAMS                                               */
     /* FUNCTION: CREATE A DIARY SURVEY EXPENDITURE TABLE BY INCOME CLASS USING */
     /*           MICRODATA FROM THE BUREAU OF LABOR STATISTIC'S CONSUMER      */
     /*           EXPENDITURE SURVEY.                                       */
     /*                                                                     */
     /* WRITTEN BY:  ERIC KEIL                                              */
     /* MODIFICATIONS:                                                      */
     /* DATE-      MODIFIED BY-      REASON-                                */
     /* -----      ------------      -------                                */
     /* 03/21/02   ERIC KEIL         IMPROVE EFFICIENCY                     */
     /* 10/22/03   ERIC KEIL         UPDATE FOR 2002 DATA                   */
     /* 11/20/03   ERIC KEIL         INCLUDE ROUTINE TO AGGREGATE EASIER    */
     /*                                                                     */
     /*  FOR SAS VERSION 8 OR HIGHER                                        */
     /*                                                                     */
     /***********************************************************************/


  %LET YEAR = 2002;  /* DESIGNATE THE CALENDAR YEAR DESIRED */
```

Sets the calendar year as a macro variable that can be used throughout the program.

```


  %LET YR1 = %SUBSTR(&YEAR,3,2);
  LIBNAME D&YR1 "D:\DIARY&YR1";
NOTE: Libref D02 was successfully assigned as follows:
      Engine:        V6
      Physical Name: D:\DIARY02

     /***********************************************************************/
     /* STEP1: READ IN THE STUB PARAMETER FILE AND CREATE FORMATS           */
     /* ------------------------------------------------------------------- */
     /* 1 CONVERTS THE STUB PARAMETER FILE INTO A LABEL FILE FOR OUTPUT     */
     /* 2 CONVERTS THE STUB PARAMETER FILE INTO AN EXPENDITURE AGGREGATION FILE */
     /* 3 CREATES FORMATS FOR USE IN OTHER PROCEDURES                       */
     /***********************************************************************/


  DATA STUBFILE (KEEP= COUNT TYPE LEVEL TITLE UCC SURVEY GROUP LINE);
    INFILE "D:\PROGRAMS\DSTUB&YEAR..TXT"
    PAD MISSOVER;
    INPUT @1 TYPE $1. @ 4 LEVEL $1. @7 TITLE $60. @70 UCC $6.
          @80 SURVEY $1. @86 GROUP $7.;
    IF (TYPE = '1');
    IF GROUP IN ('CUCHARS' 'FOOD' 'EXPEND' 'INCOME');

      RETAIN COUNT 9999;
      COUNT + 1;
      LINE = PUT(COUNT, $5.)||LEVEL ;
WARNING: Variable COUNT has already been defined as numeric.
      /* READS IN THE STUB PARAMETER FILE AND CREATES LINE NUMBERS FOR UCCS */
      /* A UNIQUE LINE NUMBER IS ASSIGNED TO EACH EXPENDITURE LINE ITEM     */
  RUN;

NOTE: The infile "D:\PROGRAMS\DSTUB2002.TXT" is:
      File Name=D:\PROGRAMS\DSTUB2002.TXT,
      RECFM=V,LRECL=256

NOTE: 777 records were read from the infile "D:\PROGRAMS\DSTUB2002.TXT".
      The minimum record length was 1.
      The maximum record length was 106.
NOTE: The data set WORK.STUBFILE has 453 observations and 8 variables.
NOTE: DATA statement used:
      real time           0.40 seconds
      cpu time            0.00 seconds
```

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

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

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

```
50
51
52   DATA AGGFMT1 (KEEP= UCC LINE LINE1-LINE10);
53     SET STUBFILE;
54     LENGTH LINE1-LINE10 $6.;
55       ARRAY LINES(9) LINE1-LINE9;
56         IF (UCC > 'A') THEN
57           LINES(SUBSTR(LINE, 6, 1)) = LINE;
58         RETAIN LINE1-LINE9;
59         IF (UCC < 'A')  THEN
60           LINE10 = LINE;
61     IF (LINE10);
62   RUN;

NOTE: Character values have been converted to numeric values at the places given by:
      (Line):(Column).
      57:15   61:7
NOTE: There were 453 observations read from the dataset WORK.STUBFILE.
NOTE: The data set WORK.AGGFMT1 has 326 observations and 12 variables.
NOTE: DATA statement used:
      real time           0.04 seconds
      cpu time            0.01 seconds


63
64
65   PROC SORT DATA= AGGFMT1 (RENAME=(LINE= COMPARE));
66     BY UCC;
67       /* MAPS LINE NUMBERS TO UCCS */
68   RUN;

NOTE: There were 326 observations read from the dataset WORK.AGGFMT1.
NOTE: The data set WORK.AGGFMT1 has 326 observations and 12 variables.
NOTE: PROCEDURE SORT used:
      real time           0.07 seconds
      cpu time            0.03 seconds


69
70
71   PROC TRANSPOSE DATA= AGGFMT1 OUT= AGGFMT2 (RENAME=(COL1= LINE));
72     BY UCC COMPARE;
73     VAR LINE1-LINE10;
74   RUN;

NOTE: There were 326 observations read from the dataset WORK.AGGFMT1.
NOTE: The data set WORK.AGGFMT2 has 3260 observations and 4 variables.
NOTE: PROCEDURE TRANSPOSE used:
      real time           0.04 seconds
      cpu time            0.03 seconds


75
76
77   DATA AGGFMT (KEEP= UCC LINE);
78     SET AGGFMT2;
79       IF LINE;
80       IF SUBSTR(COMPARE, 6, 1) > SUBSTR(LINE, 6, 1) OR COMPARE=LINE;
81       /* AGGREGATION FILE. EXTRANEOUS MAPPINGS ARE DELETED            */
82       /* PROC SQL WILL AGGANGE LINE#/UCC PAIRS FOR USE IN PROC FORMAT */
83   RUN;

NOTE: Character values have been converted to numeric values at the places given by:
      (Line):(Column).
      79:8
NOTE: There were 3260 observations read from the dataset WORK.AGGFMT2.
NOTE: The data set WORK.AGGFMT has 1329 observations and 2 variables.
NOTE: DATA statement used:
      real time           0.01 seconds
      cpu time            0.01 seconds


84
85
86   PROC SQL NOPRINT;
87     SELECT UCC, LINE, COUNT(*)
88     INTO  :UCCS SEPARATED BY " ",
89           :LINES SEPARATED BY " ",
90           :CNT
91     FROM AGGFMT;
```

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

```
NOTE: The query requires remerging summary statistics back with the original data.
 QUIT;
NOTE: PROCEDURE SQL used:
      real time           0.20 seconds
      cpu time            0.01 seconds


RUN;
%MACRO MAPPING;
  %DO  I = 1  %TO  &CNT;
    "%SCAN(&UCCS,&I,%STR( ))" = "%SCAN(&LINES,&I,%STR( ))"
  %END;
%MEND MAPPING;
DATA LBLFMT (RENAME=(LINE= START TITLE= LABEL));
  SET STUBFILE (KEEP= LINE TITLE);
  RETAIN FMTNAME 'LBLFMT' TYPE 'C';
  /* LABEL FILE. LINE NUMBERS ARE ASSIGNED A TEXT LABEL */
  /* DATASET CONSTRUCTED TO BE READ INTO A PROC FORMAT  */
RUN;
```

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

```
NOTE: There were 453 observations read from the dataset WORK.STUBFILE.
NOTE: The data set WORK.LBLFMT has 453 observations and 4 variables.
NOTE: DATA statement used:
      real time           0.01 seconds
      cpu time            0.00 seconds


PROC FORMAT;
```

Formats:

```
  VALUE $AGGFMT (MULTILABEL)
    %MAPPING
    OTHER= 'OTHER';
NOTE: Format $AGGFMT has been output.
    /* CREATE AGGREGATION FORMAT */
```

Puts the aggregation scheme into a SAS format.

```
  VALUE $INC (MULTILABEL)
    '01' = '01'
    '01' = '11'
    '02' = '02'
    '02' = '11'
    '03' = '03'
    '03' = '11'
    '04' = '04'
    '04' = '11'
    '05' = '05'
    '05' = '11'
    '06' = '06'
    '06' = '11'
    '07' = '07'
    '07' = '11'
    '08' = '08'
    '08' = '11'
    '09' = '09'
    '09' = '11'
    '10' = '10';
NOTE: Format $INC has been output.
    /* CREATE INCOME CLASS FORMAT */
RUN;

NOTE: PROCEDURE FORMAT used:
      real time           5.75 seconds
      cpu time            5.20 seconds
```

Puts the income groupings into a SAS format.

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

```
PROC FORMAT LIBRARY= WORK  CNTLIN= LBLFMT;
NOTE: Format $LBLFMT has been output.
  /* CREATE LABEL FILE FORMATS */
RUN;

NOTE: PROCEDURE FORMAT used:
      real time           0.01 seconds
```

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

```
      cpu time            0.01 seconds

NOTE: There were 453 observations read from the dataset WORK.LBLFMT.



   /**************************************************************************/
   /* STEP2: READ IN ALL NEEDED DATA FROM THE CD-ROM                         */
   /* ---------------------------------------------------------------------- */
   /* 1 READ IN THE DIARY FMLY FILES                                         */
   /* 2 READ IN THE DIARY EXPM AND DTAB FILES                                */
   /* 3 MERGE FMLY AND EXPENDITURE FILES TO DERIVE WEIGHTED EXPENDITURES     */
   /**************************************************************************/


 DATA FMLY (KEEP = NEWID INCLASS REPWT1-REPWT45);
   SET D&YR1..FMLD&YR1.1
       D&YR1..FMLD&YR1.2
       D&YR1..FMLD&YR1.3
       D&YR1..FMLD&YR1.4;
       BY NEWID;
       /* READ IN FMLY FILE DATA */

     ARRAY REPS_A(45) WTREP01-WTREP44 FINLWT21;
     ARRAY REPS_B(45) REPWT1-REPWT45;

       DO i = 1 TO 45;
       IF REPS_A(i) > 0 THEN
          REPS_B(i) = (REPS_A(i) / 4);
          ELSE REPS_B(i) = 0;
       END;
       /* ADJUST WEIGHTS TO COMPENSATE FOR HAVING FOUR QUARTERS OF DATA */
 RUN;

NOTE: There were 4014 observations read from the dataset D02.FMLD021.
NOTE: There were 3837 observations read from the dataset D02.FMLD022.
NOTE: There were 3960 observations read from the dataset D02.FMLD023.
NOTE: There were 3880 observations read from the dataset D02.FMLD024.
NOTE: The data set WORK.FMLY has 15691 observations and 47 variables.
NOTE: DATA statement used:
      real time           7.40 seconds
      cpu time            0.67 seconds
```

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

```
 DATA EXPEND (KEEP = NEWID UCC COST);
   SET D&YR1..DTBD&YR1.1 (RENAME=(AMOUNT=COST))
       D&YR1..DTBD&YR1.2 (RENAME=(AMOUNT=COST))
       D&YR1..DTBD&YR1.3 (RENAME=(AMOUNT=COST))
       D&YR1..DTBD&YR1.4 (RENAME=(AMOUNT=COST))
       D&YR1..EXPD&YR1.1
       D&YR1..EXPD&YR1.2
       D&YR1..EXPD&YR1.3
       D&YR1..EXPD&YR1.4;
   BY NEWID;
   /* READ IN INCOME AND EXPENDITURE DATA */
 RUN;

NOTE: There were 60631 observations read from the dataset D02.DTBD021.
NOTE: There were 57605 observations read from the dataset D02.DTBD022.
NOTE: There were 59742 observations read from the dataset D02.DTBD023.
NOTE: There were 58237 observations read from the dataset D02.DTBD024.
NOTE: There were 159484 observations read from the dataset D02.EXPD021.
NOTE: There were 150658 observations read from the dataset D02.EXPD022.
NOTE: There were 149721 observations read from the dataset D02.EXPD023.
NOTE: There were 151371 observations read from the dataset D02.EXPD024.
NOTE: The data set WORK.EXPEND has 847449 observations and 3 variables.
NOTE: DATA statement used:
      real time           25.63 seconds
      cpu time            0.98 seconds
```

Reads in all MTAB expenditure data and ITAB income data.

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

```
 DATA PUBFILE (KEEP = NEWID INCLASS UCC RCOST1-RCOST45);

   MERGE FMLY   (IN = INFAM)
```

Merges the FMLY and EXPEND data sets together and changes missing cost

```
        EXPEND (IN = INEXP);
  BY NEWID;
  IF INEXP AND INFAM;

  IF COST = .  THEN
     COST = 0;
```

values to zero.

```
     ARRAY REPS_A(45) REPWT1-REPWT45;
     ARRAY REPS_B(45) RCOST1-RCOST45;

     DO i = 1 TO 45;
       IF REPS_A(i)> 0
         THEN REPS_B(i) = (REPS_A(i) * COST);
         ELSE REPS_B(i) = 0;
     END;
     /* MERGE FMLY FILE WEIGHTS AND CHARACTERISTICS WITH EXPN/DTAB COSTS */
     /* MULTIPLY COSTS BY WEIGHTS TO DERIVE WEIGHTED COSTS               */
RUN;

NOTE: There were 15691 observations read from the dataset WORK.FMLY.
NOTE: There were 847449 observations read from the dataset WORK.EXPEND.
NOTE: The data set WORK.PUBFILE has 847449 observations and 48 variables.
NOTE: DATA statement used:
      real time           29.11 seconds
      cpu time            24.78 seconds
```

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

```
  /***********************************************************************/
  /* STEP3: CALCULATE POPULATIONS                                        */
  /* ------------------------------------------------------------------- */
  /* 1 SUM ALL 45 WEIGHT VARIABLES TO DERIVE REPLICATE POPULATIONS       */
  /* 2 FORMAT FOR CORRECT COLUMN CLASSIFICATIONS                         */
  /* 3 ARRANGE DATA FOR MERGING WITH EXPENDITURES                        */
  /***********************************************************************/

PROC SUMMARY NWAY DATA=FMLY;
  CLASS INCLASS / MLF;
  VAR REPWT1-REPWT45;
  FORMAT INCLASS $INC.;
  OUTPUT OUT = POP1 SUM = RPOP1-RPOP45;
  /* SUMS WEIGHTS TO CREATE POPULATIONS PER REPLICATE */
  /* FORMATS ROWS TO CORRECT COLUMN CLASSIFICATIONS   */
  /* ROWS = CLASS, COLUMNS = REPLICATES */
RUN;

NOTE: There were 15691 observations read from the dataset WORK.FMLY.
NOTE: The data set WORK.POP1 has 11 observations and 48 variables.
NOTE: PROCEDURE SUMMARY used:
      real time           0.54 seconds
      cpu time            0.12 seconds
```

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

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

```
PROC TRANSPOSE DATA = POP1
  OUT = POP2 PREFIX = POP;
  VAR RPOP1-RPOP45;
  /* PUTS POPULATIONS INTO 2 DIM FORMAT FOR MERGING */
  /* ROWS = REPLICATES, COLUMNS = CLASS */
RUN;

NOTE: There were 11 observations read from the dataset WORK.POP1.
NOTE: The data set WORK.POP2 has 45 observations and 12 variables.
NOTE: PROCEDURE TRANSPOSE used:
      real time           0.00 seconds
      cpu time            0.00 seconds
```

```
DATA POP (KEEP = REP POP1-POP11)
     CUS (RENAME = (POP1=GROUP1 POP2=GROUP2 POP3=GROUP3 POP4=GROUP4 POP5=GROUP5
                    POP6=GROUP6 POP7=GROUP7 POP8=GROUP8 POP9=GROUP9
POP10=GROUP10
                    POP11=GROUP11) DROP = _NAME_ REP);
  SET POP2;
  REP + 1;
  LINE = '100001';
```

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

```
  OUTPUT POP;
  IF REP = 45  THEN OUTPUT CUS;
  /* CREATES REP VARIABLE FOR MERGING WITH EXPENDITURES              */
  /* SETS ASIDE THE 45TH REPLICATE POPULATIONS FOR INSERTION INTO TABLE */
RUN;

NOTE: There were 45 observations read from the dataset WORK.POP2.
NOTE: The data set WORK.POP has 45 observations and 12 variables.
NOTE: The data set WORK.CUS has 1 observations and 12 variables.
NOTE: DATA statement used:
      real time           0.01 seconds
      cpu time            0.00 seconds


  /***************************************************************************/
  /* STEP4: CALCULATE WEIGHTED AGGREGATE EXPENDITURES                        */
  /* ----------------------------------------------------------------------- */
  /* 1 SUM THE 45 REPLICATE WEIGHTED EXPENDITURES TO DERIVE AGGREGATES       */
  /* 2 FORMAT FOR CORRECT COLUMN CLASSIFICATIONS AND AGGREGATION SCHEME      */
  /* 3 ARRANGE DATA FOR MERGING WITH POPULATIONS                             */
  /***************************************************************************/


PROC SUMMARY NWAY DATA=PUBFILE SUMSIZE=MAX COMPLETETYPES;
  CLASS UCC INCLASS / MLF;
  VAR RCOST1-RCOST45;
  FORMAT UCC $AGGFMT. INCLASS $INC.;
   OUTPUT OUT=AGG1 (DROP= _TYPE_ _FREQ_  RENAME=(UCC=LINE))
   SUM = RCOST1-RCOST45;
  /* SUMS WEIGHTED COSTS PER REPLICATE TO GET AGGREGATES */
  /* SUMS COLUMNS TO CREATE COMPLETE REPORTING COLUMN    */
  /* ROWS = UCC*CLASS, COLUMNS = REPLICATES */
RUN;
```

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

```
NOTE: There were 847449 observations read from the dataset WORK.PUBFILE.
NOTE: The data set WORK.AGG1 has 4906 observations and 47 variables.
NOTE: PROCEDURE SUMMARY used:
      real time           32.79 seconds
      cpu time            23.84 seconds


PROC TRANSPOSE DATA=AGG1
  OUT=AGG2 (DROP = _NAME_) PREFIX = AGG;
  BY LINE;
  WHERE LINE NE 'OTHER';
  VAR RCOST1-RCOST45;
  /* TRANSPOSES TO PUT AGGREGATED COSTS IN 2 DIM FORMAT */
  /* ROWS = REPLICATES, COLUMNS = CLASS */
RUN;

NOTE: There were 4895 observations read from the dataset WORK.AGG1.
      WHERE LINE not = 'OTHER';
NOTE: The data set WORK.AGG2 has 20025 observations and 12 variables.
NOTE: PROCEDURE TRANSPOSE used:
      real time           0.09 seconds
      cpu time            0.07 seconds


DATA AGG;
  SET AGG2;
  BY LINE;

  RETAIN REP 0;
  IF FIRST.LINE  THEN
    DO;
        REP = 0;
    END;

  ARRAY AGGS(11) AGG1-AGG11;
    DO i = 1 TO 11;
      IF AGGS(i) = .
      THEN AGGS(i) = 0;
```

```
      END;
    REP + 1;
    /* CREATES VARIABLES TO USE LATER IN MERGES */
    /* SETS MISSING AGGREGATED COSTS TO ZERO    */
  RUN;

NOTE: There were 20025 observations read from the dataset WORK.AGG2.
NOTE: The data set WORK.AGG has 20025 observations and 14 variables.
NOTE: DATA statement used:
      real time           0.09 seconds
      cpu time            0.09 seconds


  PROC SORT DATA=AGG;
    BY REP LINE;
  RUN;

NOTE: There were 20025 observations read from the dataset WORK.AGG.
NOTE: The data set WORK.AGG has 20025 observations and 14 variables.
NOTE: PROCEDURE SORT used:
      real time           0.07 seconds
      cpu time            0.06 seconds


    /*************************************************************************/
    /* STEP5: CALCULATE MEAN EXPENDITURES AND STANDARD ERRORS               */
    /* -------------------------------------------------------------------- */
    /* 1 MERGE POPULATIONS WITH AGGREGATE EXPENDITURES AND CALCULATE MEANS  */
    /* 2 CALCULATE STANDARD ERRORS                                          */
    /*************************************************************************/

  DATA ALL (KEEP = LINE REP GRP1-GRP11);
    MERGE POP AGG;
    BY REP;

    ARRAY AGGS(11)  AGG1-AGG11;
    ARRAY POPS(11)  POP1-POP11;
    ARRAY MEANS(11) GRP1-GRP11;

    DO i = 1 TO 11;
      MEANS(i) = AGGS(i) / POPS(i);
    END;
    /* MERGES POPS AND AGGREGATED COSTS TOGETHER  */
    /* CALCULATES MEAN EXPENDITURES */
    /* ROWS = LINE*REPLICATE MEANS, COLUMN = CLASS */
  RUN;

NOTE: There were 45 observations read from the dataset WORK.POP.
NOTE: There were 20025 observations read from the dataset WORK.AGG.
NOTE: The data set WORK.ALL has 20025 observations and 13 variables.
NOTE: DATA statement used:
      real time           0.23 seconds
      cpu time            0.18 seconds


  PROC SORT DATA=ALL;
    BY LINE REP;
  RUN;

NOTE: There were 20025 observations read from the dataset WORK.ALL.
NOTE: The data set WORK.ALL has 20025 observations and 13 variables.
NOTE: PROCEDURE SORT used:
      real time           0.07 seconds
      cpu time            0.07 seconds


  PROC TRANSPOSE DATA=ALL (DROP=REP)
    OUT = TAB1 PREFIX = MEAN;
    BY LINE;
    /* TRANSPOSES TO PUT REPLICATE MEANS INTO ONE LINE */
    /* ROWS = LINE*CLASS, COLUMNS = REPLICATE MEANS    */
```

The aggregate expenditures are divided by populations to form means. This is done per each replicate and for the full sample.

```
RUN;

NOTE: There were 20025 observations read from the dataset WORK.ALL.
NOTE: The data set WORK.TAB1 has 4895 observations and 47 variables.
NOTE: PROCEDURE TRANSPOSE used:
      real time           0.04 seconds
      cpu time            0.04 seconds
```

The replicated means are put into the standard error estimator to calculate standard error of the mean.

```
DATA TAB2 (DROP = _NAME_ i);
  SET TAB1;

  ARRAY REPS(44) MEAN1-MEAN44;
  ARRAY DIFF(44) DIFF1-DIFF44;

  DO i = 1 TO 44;
    DIFF(i) = (REPS(i) - MEAN45)**2;
  END;

  MEAN = MEAN45;
  SE = SQRT((1/44)*SUM(OF DIFF(*)));
  /* CALCULATES STANDARD ERRORS */
RUN;

NOTE: There were 4895 observations read from the dataset WORK.TAB1.
NOTE: The data set WORK.TAB2 has 4895 observations and 92 variables.
NOTE: DATA statement used:
      real time           0.25 seconds
      cpu time            0.21 seconds



  /************************************************************************/
  /* STEP6: TABULATE MEAN EXPENDITURES AND STANDARD ERRORS                */
  /* -------------------------------------------------------------------- */
  /* 1 ARRANGE THE DATA INTO A FORM SUITABLE FOR TABULATION               */
  /* 2 TABULATE                                                           */
  /************************************************************************/
```

Arrange output for tabulation.

```
PROC TRANSPOSE DATA=TAB2 OUT=TAB3 (RENAME=(_NAME_=ESTIMATE)) PREFIX = GROUP;
  BY LINE;
  VAR MEAN SE;
  /* TRANSPOSES MEANS BACK INTO COLUMN FORMAT */
  /* ROWS = LINE, COLUMNS = CLASS, VAR = MEAN AND SE */
RUN;

NOTE: There were 4895 observations read from the dataset WORK.TAB2.
NOTE: The data set WORK.TAB3 has 890 observations and 13 variables.
NOTE: PROCEDURE TRANSPOSE used:
      real time           0.01 seconds
      cpu time            0.01 seconds
```

Population totals per income class are inserted into the output.

```
DATA TAB;
  SET TAB3 CUS;
  BY LINE;
  IF LINE = '100001'  THEN ESTIMATE = 'N';
RUN;

NOTE: There were 890 observations read from the dataset WORK.TAB3.
NOTE: There were 1 observations read from the dataset WORK.CUS.
NOTE: The data set WORK.TAB has 891 observations and 13 variables.
NOTE: DATA statement used:
      real time           0.04 seconds
      cpu time            0.01 seconds
```

Tabulate the data. Line numbers are formatted to give titles.

```
PROC TABULATE DATA=TAB;
  CLASS LINE / GROUPINTERNAL ORDER=DATA;
  CLASS ESTIMATE;
  VAR GROUP1-GROUP11;
  FORMAT LINE $LBLFMT.;
```

```
  /* TABULATES MEANS AND SE */
  /* CONDITIONAL MACRO EXECUTION FOR COLUMN TITLES */

    TABLE (LINE * ESTIMATE), (GROUP11 GROUP1 GROUP2 GROUP3 GROUP4
                              GROUP5  GROUP6 GROUP7 GROUP8 GROUP9)
    *SUM='' / RTS=25;
    LABEL ESTIMATE=ESTIMATE GROUP1='LESS THAN $5,000'
                            GROUP2='$5,000 TO $9,999'
                            GROUP3='$10,000 TO $14,999'
                            GROUP4='$15,000 TO $19,999'
                            GROUP5='$20,000 TO $29,999'
                            GROUP6='$30,000 TO $39,999'
                            GROUP7='$40,000 TO $49,999'
                            GROUP8='$50,000 TO $69,999'
                            GROUP9='$70,000 AND OVER'
                            GROUP11='TOTAL COMPLETE REPORTING';
    OPTIONS NODATE NOCENTER NONUMBER LS=167;
    TITLE "DIARY EXPENDITURES FOR INCOME BEFORE TAXES";


RUN;

NOTE: There were 891 observations read from the dataset WORK.TAB.
NOTE: PROCEDURE TABULATE used:
      real time           0.21 seconds
      cpu time            0.06 seconds
```

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

A. BUREAU OF THE CENSUS ACTIVITIES

Data collection activities have been conducted by the Bureau of the Census 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 Bureau of the Census 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 2002 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 2002 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 predesignated 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 2002 Diary Survey is 74.2% 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	*Eligible housing unit interviews* Number of potential diaries	Type A nonresponse	Total respondent interviews
26,438	5,274	21,164	5,466	15,698

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

<u>Population</u>
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.

<u>Consumer unit (CU)</u>
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.

<u>Reference person</u>
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, $^{N(D)011}$(UCC) identifies a new (deleted) UCC beginning in Q011.

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
220400	Purchase of property or real estate
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	Cable/Satellite/Com Antenna Serv
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, refurnishing, 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 freshener, etc...
480213	Battery replacement, floormats, seatcovers, 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
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, gauze, 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
620912	Rental of video cassettes, tapes, and discs
620913	Coin-operated pinball/electronic video games
620915	Sport vehicle rental
620925	Lotteries and Parimutuel Losses

620926	Miscellaneous Fees
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

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, 90924, 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 ALCOHLIC 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 Dstub file in the Programs folder on the CD shows the UCC aggregation used in the sample program. This aggregation scheme may also be found on our website at www.bls.gov\cex.

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	FINC_EFX	147	FWAGEX_	386
ADDFEDX	9	FINLWT21	148	HRSPRWK1	387
ADDFEDX_	17	FIRAX	159	HRSP_WK1	390
ADDOTHX	18	FIRAX_	167	HRSPRWK2	391
ADDOTHX_	26	FJSSDEDX	168	HRSP_WK2	394
ADDSTAX	27	FJSS_EDX	176	INC_RNKU	395
ADDSTAX_	35	FPVTX	177	INC__NKU	404
AGE_REF	36	FPVTX_	185	INSREFX	405
AGE_REF_	38	FREEMLX	186	INSREFX_	413
AGE2	39	FREEMLX_	194	INTX	414
AGE2_	41	FRRX	195	INTX_	422
BLS_URBN	42	FRRX_	203	JFS_AMT	423
CUTENURE	43	FS_AMT1	204	JFS_AMT_	431
CUTE_URE	44	FS_AMT1_	212	JGRCFDMV	432
DESCRIP	45	FS_AMT2	213	JGRC_DMV	438
DESCRIP_	47	FS_AMT2_	221	JGRCFDWK	439
DIVX	48	FS_AMT3	222	JGRC_DWK	445
DIVX_	56	FS_AMT3_	230	JGROCYMV	446
EARNCOMP	57	FS_AMT4	231	JGRO_YMV	452
EARN_OMP	58	FS_AMT4_	239	JGROCYWK	453
EARNX	59	FS_AMT5	240	JGRO_YWK	459
EARNX_	67	FS_AMT5_	248	LUMPX	460
EDUC_REF	68	FS_AMT6	249	LUMPX_	468
EDUC0REF	70	FS_AMT6_	257	MARITAL1	469
EDUCA2	71	FS_AMT7	258	MARI_AL1	470
EDUCA2_	73	FS_AMT7_	266	NO_EARNR	471
EMPLTYP1	74	FS_DATE1	276	NO_E_RNR	473
EMPL_YP1	75	FS_D_TE1	284	NONERNX	474
EMPLTYP2	76	FS_DATE2	285	NONERNX_	482
EMPL_YP2	77	FS_D_TE2	293	OCCEXPNX	483
FAM_SIZE	78	FS_DATE3	294	OCCE_PNX	491
FAM__IZE	80	FS_D_TE3	302	OCCULIS2	492
FAM_TYPE	81	FS_DATE4	303	OCCU_IS2	494
FAM__YPE	82	FS_D_TE4	311	ORIGIN1	495
FBSNSX	83	FS_DATE5	312	ORIGIN1_	497
FBSNSX_	91	FS_D_TE5	320	ORIGIN2	497
FD_STMPS	92	FS_DATE6	321	ORIGIN2_	498
FD_S_MPS	93	FS_D_TE6	329	OTHINX	499
FEDREFX	94	FS_DATE7	330	OTHINX_	507
FEDREFX_	102	FS_D_TE7	338	OTHRECX	508
FFARMX	103	FS_MTHI	348	OTHRECX_	516
FFARMX_	111	FS_MTHI_	350	OTHREFX	517
FFEDTXX	112	FSS_RRX	351	OTHREFX_	525
FFEDTXX_	120	FSS_RRX_	359	OTHRNTX	526
FGVX	121	FSTATXX	360	OTHRNTX_	534
FGVX_	129	FSTATXX_	368	PENSIONX	535
FINCAFTX	130	FSUPPX	369	PENS_ONX	543
FINC_FTX	138	FSUPPX_	377	PERSLT18	544
FINCBEFX	139	FWAGEX	378	PERS_T18	546

Variable	Start Position	Variable	Start Position	Variable	Start Position
PERSOT64	547	WHYN_RK1	669	WTREP42	1138
PERS_T64	549	WHYNWRK2	670	WTREP43	1149
PERSTAX	550	WHYN_RK2	671	WTREP44	1160
PERSTAX_	558	WK_WRKD1	672	FOODTOT	1171
PICK_UP	559	WK_W_KD1	674	FOODHOME	1183
OCCULIS1	561	WK_WRKD2	675	CEREAL	1195
OCCU_IS1	563	WK_W_KD2	677	BAKEPROD	1207
POPSIZE	564	WRKRSX	678	BEEF	1219
PTAXREFX	565	WRKRSX_	686	PORK	1231
PTAX_EFX	573	WTREP01	687	OTHMEAT	1243
RACE2	574	WTREP02	698	POULTRY	1255
RACE2_	575	WTREP03	709	SEAFOOD	1267
REC_FS	576	WTREP04	720	EGGS	1279
REC_FS_	577	WTREP05	731	MILKPROD	1291
REF_RACE	578	WTREP06	742	OTHDAIRY	1303
REF__ACE	579	WTREP07	753	FRSHFRUT	1315
REGION	580	WTREP08	764	FRSHVEG	1327
REGION_	581	WTREP09	775	PROCFRUT	1339
RESPSTAT	582	WTREP10	786	PROCVEG	1351
RESP_TAT	583	WTREP11	797	SWEETS	1363
ROOMX	584	WTREP12	808	NONALBEV	1375
ROOMX_	592	WTREP13	819	OILS	1387
SALEX	593	WTREP14	830	MISCFOOD	1399
SALEX_	601	WTREP15	841	FOODAWAY	1411
SEX_REF	602	WTREP16	852	ALCBEV	1423
SEX_REF_	603	WTREP17	863	SMOKSUPP	1435
SEX2	604	WTREP18	874	PET_FOOD	1447
SEX2_	605	WTREP19	885	PERSPROD	1459
SMSASTAT	606	WTREP20	896	PERSSERV	1471
SSREFX	607	WTREP21	907	DRUGSUPP	1483
SSREFX_	615	WTREP22	918	HOUSKEEP	1495
STATREFX	616	WTREP23	929	HH_CU_Q	1507
STAT_EFX	624	WTREP24	940	HH_CU_Q_	1509
STRTDAY	625	WTREP25	951	HHID	1510
STRTMNTH	627	WTREP26	962	HHID_	1513
STRTYEAR	629	WTREP27	973	CHILDAGE	1514
TAXPROPX	633	WTREP28	984	CHIL_AGE	1515
TAXP_OPX	641	WTREP29	995	INCLASS	1516
TYPOWND	642	WTREP30	1006	STATE	1518
TYPOWND_	643	WTREP31	1017	STATE_	1520
UNEMPX	644	WTREP32	1028	CHDOTHX	1521
UNEMPX_	652	WTREP33	1039	CHDOTHX_	1529
VEHQ	653	WTREP34	1050	ALIOTHX	1530
VEHQ_	655	WTREP35	1061	ALIOTHX_	1538
WEEKI	656	WTREP36	1072	CHDLMPX	1539
WEEKI_	657	WTREP37	1083	CHDLMPX_	1547
WEEKN	658	WTREP38	1094	POVERTY	1548
WELFRX	659	WTREP39	1105	POVERTY_	1549
WELFRX_	667	WTREP40	1116	POVLEV	1550
WHYNWRK1	668	WTREP41	1127	POVLEV_	1558

Variable	Start Position	Variable	Start Position	Variable	Start Position
INC_RANK	1559	INC__ANK	1568	CUID	1569

B. MEMB FILE

Variable	Start Position	Variable	Start Position	Variable	Start Position
NEWID	1	GROS_AYX	103	SS_RRX	183
AGE	9	GVX	104	SS_RRX_	191
AGE_	11	GVX_	112	STA_SUPP	192
ANFEDTXX	12	HRSPERWK	113	STA__UPP	193
ANFE_TXX	20	HRSP_RWK	116	STATXX	194
ANGVX	21	IRAX	117	STATXX_	202
ANGVX_	29	IRAX_	125	SUPPX	203
ANPVTX	30	JSSDEDX	126	SUPPX_	211
ANPVTX_	38	JSSDEDX_	132	US_SUPP	212
ANRRX	39	MARITAL	133	US_SUPP_	213
ANRRX_	47	MARITAL_	134	WAGEX	214
ANSTATXX	48	MEMBNO	135	WAGEX_	222
ANST_TXX	56	OCCULIST	137	WHYNOWRK	223
ANYRAIL	57	OCCU_IST	139	WHYN_WRK	224
ANYRAIL_	58	ORIGIN	140	WKS_WRKD	225
ANYSSINC	59	ORIGIN_	141	WKS__RKD	227
ANYS_INC	60	PVTX	142	SS_RRQ	228
BSNSX	61	PVTX_	150	SS_RRQ_	232
BSNSX_	69	RACE	151	SOCRRX	233
CU_CODE1	70	RACE_	152	SOCRRX_	241
CU_C_DE1	71	RRX	153	ARM_FORC	242
EDUCA	72	RRX_	161	ARM__ORC	243
EDUCA_	74	SCHLNCHQ	162	IN_COLL	244
EMPLTYPE	75	SCHL_CHQ	164	IN_COLL_	245
EMPL_YPE	76	SCHLNCHX	165	MEDICARE	246
FARMX	77	SCHL_CHX	173	MEDI_ARE	247
FARMX_	85	SEX	174	PAYPERD	248
FEDTXX	86	SEX_	175	PAYPERD_	249
FEDTXX_	94	SLFEMPSS	176		
GROSPAYX	95	SLFE_PSS	182		

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

Consumer Expenditures in 2002, Report (2003)	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 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 .

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 1984-2002
Expenditure Shares Tables from 1998-2002
Aggregate Expenditure Shares Tables from 1998-2002

Two Year Tables

Cross-Tabulated Tables from 1986-2002

Metropolitan Statistical Area Tables from 1986-2002
Region Tables from 1998-2002
High Income Tables from 1998-2002
Multi-Year Tables for 1984-1992 and 1993-2002

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 1994-2002. The 1980-81 through 2002 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 1994-2002 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 .

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.