Getting started with Consumer Expenditure Survey (CE) Public-Use Microdata (PUMD)*

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September 9, 2014

*Version 3.0

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Contents

1 Introduction

1.1 Purpose

The *Getting Started Guide* is intended for the novice user of CE Public-Use Microdata (CE PUMD). The guide introduces the structure and content of the CE PUMD files and lists the available documentation.

1.2 What is CE PUMD?

The CE PUMD are a series of data files that contain a wealth of detailed variables concerning each individual response from the two CE surveys within a collection year. This level of detail is useful for a broad spectrum of research, but to analyze the data requires researchers to have an advanced knowledge of a statistical software package, such as SAS.

1.3 Do I really need CE PUMD for my project?

Many research projects do not require that much detail. For these projects, CE provides tabulated data with pre-calculated population means, aggregates, and standard errors as well as selected demographic characteristics.

The online CE tabular data, available at http://www.bls.gov/cex/tables.htm, are broken out by the following characteristics:

- Age of reference person
- Composition of consumer unit
- Highest education level of any member of the consumer unit
- Higher income before taxes (> $70,000)
- Hispanic or Latino origin of reference person
- Housing tenure and type of area (Urban/Rural)
- Income before taxes (< $70,000)
- Number of earners in consumer unit
- Population size of area of residence
- Quintiles of income before taxes
- Race of reference person
- Region of residence
- Size of consumer unit
- Selected age of reference person

The tabular data are constructed from internal CE microdata, and are widely used by researchers, journalists, businessmen, policy makers, academics, non-profits, students, and local, state, federal, and foreign governments.

If you are looking for more detailed expenditures than what are available in the online tables, then you can request disaggregated tables ("prepubs") by contacting our office at: http://www.bls.gov/cex/csxcont.htm. The disaggregated tables will have more granular expenditures such as "bacon" or "pork chops" instead of "pork." You can see the level of detail available in the tables by looking at the underlying items in the glossary of expenditures terms: http://www.bls.gov/cex/csxgloss.htm#expn.

If your research needs cannot be met with the available tables, then the CE PUMD files may be for you. With the CE PUMD files, you will be able to calculate means and other statistics by demographic groups that you define, as well as conduct more complex analysis such as regression analysis or analysis of variance.

However, the CE PUMD is a large, complex dataset that requires an extensive time commitment by users to study the documentations to learn how to use the data appropriately. In addition to the time needed to learn how to use the files, users must also have a good working knowledge of an advanced statistical software package, such as SAS, SPSS, or STATA, to manipulate the files. Because of the large file sizes, it may be difficult to use a package such as Microsoft Excel to conduct analysis.

If you have any questions about whether the CE PUMD is right for you, our staff would be happy to give you guidance. Contact us at: http://www.bls.gov/cex/csxcont.htm. We also host an annual CE Microdata Users' Workshop to help our users learn how to use the CE PUMD files through hands-on practical training. Look for an announcement on the CE website for our next workshop.

2 PUMD file structure

2.1 Interview survey data

2.1.1 Quarterly files

"Quarter" refers to the calendar quarter in which the interview occurred. For example, any Consumer Unit (CU) interviewed in April, May, or June would have their data stored in the quarter 2 (Q2) datasets. During an interview, the CU is asked to report expenditures for a reference period of three months. So, for a CU interviewed in April, their expenditures in the Q2 file are for January, February, and March. (This is important to remember when calculating calendar year estimates.) Five quarters of interviews are included in each PUMD release, Q1 of (RELEASE YEAR) through Q1 of (RELEASE YEAR + 1). There are six types of data files organized by quarter:

1. FMLI - a file with characteristics, income, weights, and summary level expenditures for the CU.

2. MEMI - a file with characteristics and income for each member in the CU.

3. MTBI - a detailed monthly expenditure file categorized by Universal Classification Code (UCC).

4. ITBI - a Consumer Unit monthly income file categorized by UCC.

5. ITII - a Consumer Unit monthly imputed income file categorized by UCC.[1]

6. NTAXI - a file with federal and state tax information for each tax unit in the CU.[2]

2.1.2 "Annual" or "5 quarter" files

The Interview EXPN files contain expenditure and non-expenditure information collected directly from all major sections of the quarterly Interview survey. For each PUMD release, there are roughly 50 annual EXPN datasets, with each dataset corresponding to a specific section of the Interview survey (http://www.bls.gov/cex/csxsurveyforms.htm#interview). Because these datasets correspond directly to the Interview survey sections, there are varying reference periods for the expenditures contained within each EXPN dataset, dependent upon the questions within each section. Each annual EXPN dataset is made up of the five quarters of data within each release.

2.1.3 Paradata

Beginning in 2009, the CE began releasing paradata, which is data about the interview process. Paradata is available in two datasets:

1. FPAR - a file with data about the survey, including timing for each section and whether the respondent used records.

2. MCHI - a file with data about the contact history between the field representative and the respondent, including reasons for interview refusal and time of contact.

Typically, each paradata file has nine quarters of data, starting with Q1 from the (RELEASE YEAR - 1) to Q1 from the (RELEASE YEAR + 1). Nine quarters are included within each PARADATA file so users can have paradata records across all interviews for a given CU. (A CU completing their last interview during Q1 of (RELEASE YEAR) has the potential to have had their first (bounding) interview during Q1 of (RELEASE YEAR - 1)).[3]

2.2 Diary Survey Data

2.2.1 Quarterly files

"Quarter" refers to the calendar quarter in which the Diary booklet was placed in the home of the CU by the Census Field Representative. All Diary files are organized as quarterly files. Those include:

1. FMLD - a file with characteristics, income, weights, and summary level expenditures for the CU.

2. MEMD - a file with characteristics and income for each member in the CU.

3. EXPD - a detailed weekly expenditure file categorized by UCC.

[1] Available beginning in 2004

[2] Available beginning in 2013Q2

[3] With the 2009 PUMD release, historical paradata for 2005-2007 were released. The dataset for 2005 contains 3 quarters of data, while the datasets for 2006 and 2007 contains 4 quarters of data each.

4. DTBD - a detailed annual income file categorized by UCC.

5. DTID - a Consumer Unit imputed income file categorized by UCC.[4]

2.3 File naming conventions

The naming conventions used for each PUMD release is common to both Interview and Diary data. *YY* stands for the two digit year and *Q* stands for the calendar quarter of the Interview or calendar quarter of the placement of the Diary booklet. Below, the example file directories and names are for SAS datasets. The only difference in the naming convention for other dataset types (i.e., SPSS, STATA, etc.) is the file extension.

2.3.1 File names and directories

Interview quarterly files

FMLI \INTRVW *YY*\FMLI *YYQ*.sas7bdat

MEMI \INTRVW *YY*\MEMI *YYQ*.sas7bdat

MTBI \INTRVW *YY*\MTBI *YYQ*.sas7bdat

ITBI \INTRVW *YY*\ITBI *YYQ*.sas7bdat

ITII \INTRVW *YY*\ITII *YYQ*.sas7bdat

NTAXI \INTRVW *YY*\NTAXI *YYQ*.sas7bdat

Interview annual files
Note: Only selected EXPN files are listed here. All other EXPN files follow the same convention.

CLA \EXPN *YY*\CLA *YY*.sas7bdat

IHB \EXPN *YY*\IHB *YY*.sas7bdat

VEQ \EXPN *YY*\VEQ *YY*.sas7bdat

Diary quarterly files

FMLD \DIARY *YY*\FMLD *YYQ*.sas7bdat

MEMD \DIARY *YY*\MEMD *YYQ*.sas7bdat

EXPD \DIARY *YY*\EXPD *YYQ*.sas7bdat

DTBD \DIARY *YY*\DTBD *YYQ*.sas7bdat

DTID \DIARY *YY*\DTID *YYQ*.sas7bdat

[4] Available beginning in 2004.

2.3.2 What's the "X" about?

You may have noticed there is an "X" in the name for some of the Interview quarterly files (eg. FMLI*YY*1x.sas7bdat or MEMI*YY*1x.sas7bdat). You may have also noticed that this "X" is only in the name of quarter 1 files for the current calendar year. This is because files for the first quarter of any calendar year will appear in two CE PUMD releases:

1. As the "fifth" quarter file in the previous calendar year's release,
2. And as the "first" quarter file in the current calendar year's release.

The "X" signifies that the first quarter file of the current calendar year release is not identical to the fifth quarter file of the previous calendar year release. One reason the files are not identical is because PUMD production processes use the five quarters of data within the release to calculate certain values, such as the critical and topcode values of income and expenditures. During years in which there was a sample design change, there is a bigger difference in the "X" files. For example, the CE changed its sample design in 2005Q1. When this happens, the CE draws an "overlapping sample" for 2005Q1, i.e., some CUs are for the *old* design, some CUs are for the *new* design, and some are for *both* designs.[5] For the 2004 PUMD release, the CUs in the 2005Q1 files are those for the *old* design. For the 2005 PUMD release, the CUs in the 2005Q1 files are those for the *new* design. CUs that were in both the *old* and *new* designs are contained within the 2005Q1 file for both the 2004 and 2005 PUMD releases.

3 PUMD file content overview

NEWID, the unique identifier for each CU, is included within every record on each data file. It can be used to link records of a particular CU across files. For example, linking demographic information in the Interview FMLI file to expenditure information in the MTBI file. Be aware that the samples from the Interview and Diary surveys are independent, so there is no CU contained within both the Interview and Diary files.

3.1 Interview quarterly files

3.1.1 FMLI-CU characteristics, income, and summary expenditure variables

- There exists one record per CU.
- Each CU is uniquely identified by NEWID.
- Variables include demographics for the reference person and spouse of reference person, income at the CU level, sample housing unit information, summary level expenditures, and weighting variables.

Note: Not all the variables within the FMLI file are shown in the sample below.

[5] CUs can be in both the *old* and *new* designs because the designs are based on areas of the United States called Primary Sampling Units (PSU). So if a CU was in a PSU that was in both designs, then they are used in both designs.

	NEWID	AGE_REF	FAM_SIZE	FINCBTXM	FDAWAYPQ	FDAWAYCQ	FINLWT21
1	2545235	82	2	11807.0	0	0	1980.829
2	2545245	69	3	33773.0	370	0	22347.181
3	2545255	22	1	11000.0	180	0	15272.973
4	2545275	57	1	163793.8	680	0	14774.904
5	2545305	45	2	116227.0	770	0	18557.247
6	2545355	37	1	120000.0	2000	0	16921.900
7	2545365	29	4	31400.0	625	0	15776.683
8	2545375	53	2	200.0	1530	0	15271.262
9	2545385	64	1	60000.0	455	0	16723.973
10	2545405	46	2	84608.2	1540	0	16474.727

3.1.2 MEMI-CU member characteristics and income

- There exist multiple records per CU.
- There exists one record per member.
- Unique records are defined by the combination of NEWID and MEMBNO.
- Variables include demographics about CU members, member level income, and member relationship status to the reference person.

Note: Not all the variables within the MEMI file are shown in the sample below.

	NEWID	MEMBNO	AGE	CU_CODE	EARNER	EDUCA	SEX	MEMBRACE	SALARYXM
1	2667582	4	1	3	NA	NA	1	1	1
2	2667602	1	26	1	1	2	1	1	745
3	2667602	2	23	0	1	5	2	1	3282
4	2667602	3	2	3	NA	NA	1	1	1
5	2667612	1	22	1	1	5	1	4	871
6	2667612	2	24	6	1	5	1	4	1605
7	2667612	3	57	7	1	4	1	4	817
8	2667612	4	49	7	2	4	2	4	1
9	2667642	1	29	1	1	4	1	1	312
10	2667652	1	28	1	1	7	1	1	1

3.1.3 MTBI-Monthly expenditure file classified by UCC

- There exist multiple records per CU.
- There exists one record per expenditure per purchase month/year.
- Prior to the 2010 PUMD release, unique records were not identified. From the 2010 release forward, unique records can be identified using a combination of NEWID, EXPNAME, SEQNO, and ALCNO.
- The monthly expenditure amounts are mapped from corresponding EXPN variables.

Note: Not all the variables within the MTBI file are shown below.

	NEWID	UCC	COST	COST_	GIFT	PUBFLAG	REF_MO	REF_YR
1	2554935	210110	232	1	2	2	3	2013
2	2554935	210110	232	1	2	2	2	2013
3	2554935	210110	232	1	2	2	1	2013
4	2545765	210110	600	1	2	2	3	2013
5	2545765	210110	600	1	2	2	2	2013
6	2545765	210110	600	1	2	2	1	2013
7	2562785	210110	500	1	2	2	4	2013
8	2562785	210110	500	1	2	2	3	2013
9	2562785	210110	500	1	2	2	2	2013
10	2560385	210110	660	1	2	2	4	2013

3.1.4 ITBI-Consumer Unit monthly income classified by UCC

- There exist multiple records per CU.
- There exists one record per income item per month/year.
- Unique records are defined by NEWID, UCC, REFMO, and REFYR.
- The monthly amounts are mapped from the corresponding CU-level imputed income mean values.

Note: This ITBI sample shows ALL variables that are in the full ITBI file.[6]

	NEWID	REFMO	REFYR	UCC	PUBFLAG	VALUE	VALUE_
1	2545235	1	2013	5100	2	520.8333	NA
2	2545235	2	2013	5100	2	520.8333	NA
3	2545235	3	2013	5100	2	520.8333	NA
4	2545235	1	2013	5110	2	520.8333	NA
5	2545235	2	2013	5110	2	520.8333	NA
6	2545235	3	2013	5110	2	520.8333	NA
7	2545235	1	2013	5200	2	2500.0000	NA
8	2545235	2	2013	5200	2	2500.0000	NA
9	2545235	3	2013	5200	2	2500.0000	NA
10	2545235	1	2013	5210	2	2500.0000	NA

3.1.5 ITII-Consumer Unit monthly imputed income file classified by UCC.

- There exist multiple records per CU.
- There exists one record per income item per month/year.
- Unique records are defined by NEWID, UCC, REFMO, REFYR, and IMPNUM.

[6]The dataset views in this document were generated using R, which represents missing values as "NA." Other statistical software packages may represent missing values as a period, blank space, or in another manner.

- The monthly amounts are mapped from the corresponding CU-level imputed income imputes(5 imputes per income item).
- This file is necessary to calculate variances and standard errors for imputed income.

Note: This ITII sample shows ALL variables that are in the full ITII file.

	NEWID	REFMO	REFYR	UCC	PUBFLAG	VALUE	VALUE_	IMPNUM
1	2545235	1	2013	900030	2	982.8333	NA	1
2	2545235	1	2013	900030	2	982.8333	NA	2
3	2545235	1	2013	900030	2	982.8333	NA	3
4	2545235	1	2013	900030	2	982.8333	NA	4
5	2545235	1	2013	900030	2	982.8333	NA	5
6	2545235	2	2013	900030	2	982.8333	NA	1
7	2545235	2	2013	900030	2	982.8333	NA	2
8	2545235	2	2013	900030	2	982.8333	NA	3
9	2545235	2	2013	900030	2	982.8333	NA	4
10	2545235	2	2013	900030	2	982.8333	NA	5

3.1.6 NTAXI-Federal and state tax information classified by tax unit

- There may exist multiple records per CU.
- There exists one record per tax unit.
- Unique records are defined by the combination of NEWID and TAX_UNIT.
- Variables include federal and state tax rates, tax liabilites, and various tax-related characteristics of the tax unit.

Note: Not all the variables within the NTAXI file are shown in the sample below.

	NEWID	TAX_UNIT	DEPCNT	FILESTAT	SRATE_CY	SRATE_PY
1	2545235	1	2	3	0.0000	0.0000
2	2545245	1	2	3	0.0000	0.0000
3	2545255	1	0	1	0.0000	0.0653
4	2545275	1	0	1	0.0575	0.0575
5	2545305	1	0	2	0.0475	0.0475
6	2545355	1	0	1	0.0758	0.0764
7	2545365	1	2	2	0.0930	0.0930
8	2545375	1	2	3	0.0000	0.0000
9	2545385	1	0	1	0.0610	0.0610
10	2545405	1	1	3	0.0400	0.0400

3.2 Interview annual files–EXPN

- Each EXPN file is different, with some having multiple records per CU and others with one record or no records per CU interviewed each quarter.

- Unique records are defined differently in each file.
- Common variables to all EXPN files: **NEWID** is the unique CU identifier. **QYEAR** defines the year and interview quarter for a given record. **SEQNO** is assigned sequentially during the interview as each expenditure record is recorded into the database. **ALCNO** is assigned sequentially for each record that has been allocated from one expenditure during the process. For example, a CU may report spending $50 on a pair of men's pants and a shirt. The CE will allocate out that record into separate records, one for men's pants and shorts($30) and one for men's shirts($20). **REC_ORIG** describes the origin of the record, i.e., whether the expenditure data was collected during the current interview, expenditure data collected for a current reference period in a previous interview, household inventory data collected during a previous interview that was pulled forward to the current, or data that was created by the CE processing edit system.
- Variables include those directly collected from the Interview survey questionnaire on expenditures and screener questions. Variables that are recalculated by CE are also included.

Examples:

3.2.1 CLA-Clothing and sewing materials

- Unique records in CLA are defined by the combination of NEWID, SEQNO, and ALCNO.
- **CLOTHYA** is an item code variable for the type of clothing expenditure (suits, dresses, undergarments, etc.)
- **CLOTHMOA** is an indicator variable for the month in which the purchase occurred.
- **CLOTHXA** is the amount of the clothing expense.

Note: Not all the variables within the CLA file are shown below.

	QYEAR	NEWID	SEQNO	ALCNO	CLOTHYA	CLOTHMOA	CLOTHXA
1	20131	2511505	15	0	140	12	204
2	20131	2511555	13	0	270	11	1
3	20131	2511555	13	1	200	11	203
4	20131	2511555	13	2	210	11	4
5	20131	2511555	13	3	190	11	725
6	20131	2511565	15	0	275	12	1
7	20131	2511565	15	1	190	12	572
8	20131	2511565	15	2	150	12	78
9	20131	2511565	16	0	140	12	658
10	20131	2511565	17	0	200	12	759

3.2.2 IHB-Hospitalization and health insurance detailed questions

- Unique records in IHB defined by NEWID, SEQNO, ALCNO, and HHIPDLIB.

- **HHIPDLIB** is the policy number for the health insurance plan. This number is derived by the order in which the respondent lists their health insurance plans.
- **HHICOVQ** is the number of people covered by health insurance plan.
- **QHI3MCX** is the amount paid in health insurance premiums during the reference period (derived by CE).
- **HHICODE** is an indicator variable for the type of insurance plan (HMO, FFS, Medicare supplement, or other special purpose plan).

Note: Not all the variables within the IHB file are shown below.

	QYEAR	NEWID	SEQNO	ALCNO	HHIPDLIB	HHICOVQ	QHI3MCX	HHICODE
1	20131	2511505	24	0	1	3	2	2
2	20131	2511505	25	0	2	2	2	2
3	20131	2511555	30	0	1	1	1075	1
4	20131	2511555	31	0	2	1	1297	1
5	20131	2511555	32	0	3	1	1297	1
6	20131	2511565	27	0	1	1	1	1
7	20131	2511565	29	0	3	1	1	4
8	20131	2511575	33	0	1	4	1	1
9	20131	2511585	35	0	1	2	1	2
10	20131	2511595	37	0	2	2	329	1

3.2.3 VEQ-Vehicle maintenance and repair

- Unique records in VEQ defined by NEWID, SEQNO, and ALCNO.
- **VOPSERVY** is an indicator variable that decribes the type of maintenance or repair untaken.
- **VOPMOA** is an indicator variable for the month in which the expense occurred.
- **VOPEXPX** is the total cost of the maintenance or repair expense.

Note: Not all the variables within the VEQ file are shown below.

	QYEAR	NEWID	SEQNO	ALCNO	VOPSERVY	VOPMOA	VOPEXPX
1	20131	2511505	63	0	100	12	275
2	20131	2511575	61	0	100	11	103
3	20131	2511595	76	0	370	12	201
4	20131	2511625	39	0	115	11	819
5	20131	2511625	39	1	100	11	1
6	20131	2511625	39	2	110	11	1
7	20131	2511675	54	0	100	11	715
8	20131	2511695	126	0	100	12	808
9	20131	2511695	127	0	365	10	417
10	20131	2511695	128	0	365	11	382

3.3 Diary files

- Most Diary files are analogous to Interview files.
- There are slightly different variable names in the Diary files.
- The summary level expenditures in the Diary FMLD file are not as extensive as those in the Interview FMLI file.

3.3.1 FMLD-CU characteristics, income, weights, and summary level expenditures

- Analogous to FMLI file in Interview.

Note: Not all the variables within the FMLD file are shown below.

	NEWID	STRTMNTH	WEEKI	CUTENURE	AGE_REF	AGE2	FOODHOME	FINLWT21
1	1451201	4	1	1	70	50	52.43	34683.44
2	1451202	5	2	1	70	50	14.00	34683.44
3	1451211	4	1	4	33	1	0.00	31140.85
4	1451212	4	2	4	33	1	28.03	31140.85
5	1451221	4	1	3	88	65	0.00	40310.51
6	1451222	4	2	3	88	65	0.00	40310.51
7	1451241	5	1	1	43	19	152.65	35929.24
8	1451242	5	2	1	43	19	124.05	35929.24
9	1451261	4	1	2	31	1	108.78	33222.60
10	1451262	5	2	2	31	1	61.03	33222.60

3.3.2 MEMD-CU member characteristics and income

- Analogous to MEMI file in Interview.

Note: Not all the variables within the MEMD file are shown below.

	NEWID	MEMBNO	AGE	EDUCA	MARITAL	EMPLTYPE	WAGEXM
1	1451201	1	70	5	1	NA	1
2	1451201	2	68	5	1	NA	1
3	1451202	1	70	5	1	NA	1
4	1451202	2	68	5	1	NA	1
5	1451211	1	33	5	3	NA	1
6	1451211	2	9	NA	5	NA	1
7	1451211	3	8	NA	5	NA	1
8	1451211	4	8	NA	5	NA	1
9	1451212	1	33	5	3	NA	1
10	1451212	2	9	NA	5	NA	1

3.3.3 EXPD-Detailed weekly expenditure file categorized by UCC

- Analogous to MTBI files in Interview.
- There are multiple records per CU.
- There is one record per expenditure per purchase month/year.
- Unique records are not defined.
- The weekly amounts are recorded directly from listings in the completed Diary.

Note: Not all the variables within the EXPD file are shown below.

```
     NEWID ALLOC  COST GIFT PUB_FLAG EXPNSQDY    UCC
1  1451201     0  6.63    2        2        7  10210
2  1451201     0  1.40    2        2        1  20210
3  1451201     0  1.60    2        2        1 110210
4  1451201     0 42.80    2        2        1 170310
5  1451201     0 10.00    2        2        6 190111
6  1451201     0 24.00    2        2        5 190112
7  1451201     0 10.00    2        2        4 190211
8  1451201     0  2.00    2        2        5 190321
9  1451201     0  8.00    2        2        1 190322
10 1451201     0  2.00    2        2        3 190322
```

3.3.4 DTBD-Detailed annual income file categorized by UCC

- Analogous to ITBI file in Interview.

Note: This DTBD example shows ALL variables that are in the full DTBD file.

```
     NEWID    UCC AMOUNT AMOUNT_ PUB_FLAG
1  1451201 900030  46918      NA        1
2  1451201 980000  46918       1        1
3  1451201 980010      2      NA        1
4  1451201 980020     70      NA        1
5  1451201 980040      2      NA        1
6  1451201 980060      2      NA        1
7  1451201 980070  46918       1        1
8  1451201 980090    100      NA        1
9  1451201 980210    100      NA        1
10 1451201 980230    100      NA        1
```

3.3.5 DTID-Consumer Unit imputed income file categorized by UCC.

- Analogous to the ITII file.

Note: This DTID example shows ALL variables that are in the full DTID file.

```
      NEWID    UCC PUB_FLAG AMOUNT AMOUNT_ IMPNUM
1   1451201 900030        1  46918      NA      1
2   1451201 900030        1  46918      NA      2
3   1451201 900030        1  46918      NA      3
4   1451201 900030        1  46918      NA      4
5   1451201 900030        1  46918      NA      5
6   1451201 980000        1  46918       1      1
7   1451201 980000        1  46918       1      2
8   1451201 980000        1  46918       1      3
9   1451201 980000        1  46918       1      4
10  1451201 980000        1  46918       1      5
```

4 Documentation

To aid in using the PUMD, the CE produces annual user guides and data dictionaries. Since the 2007 PUMD release, the user guides and data dictionaries, for both Interview and Diary data, have been parsed out into separate documents. Prior to 2007, the user guides and data dictionaries were combined in one document. The user documentations include:

- A summary of changes from the previous release of CE PUMD.
- More in depth information of the PUMD files.
- Information on CE PUMD nondisclosure requirements.
- Formulas and procedures for estimating aggregate statistics from the data.
- Data reliability statements.
- And other information, including information on sampling design and cooperation levels.

The data dictionaries include a listing of all the CE PUMD variables and descriptions. User guides and data dictionaries dating back to the 1996 release, along with other miscellaneous documentations, can be accessed online at the CE website, http://www.bls.gov/cex/csxmicrodoc.htm.