

Consumer Expenditure (CE) Public-Use Microdata (PUMD) File Structure

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CE Microdata User's Workshop

July 17 - 19, 2019

File Naming Conventions

- Naming conventions used for each PUMD release are common to both Interview and Diary data.
 - ▶ YY = Year
 - ▶ Q = Quarter
 - ▶ Q1 of 2017 → FMLI171 (2015 PUMD) or FMLI171x (2017 PUMD)
- 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.

The Interview Survey



| Quarter 1 (fmli171x) | | | | | |
|----------------------|----------|----------|----------|----------|------------|
| Oct 2016 | Nov 2016 | Dec 2016 | Jan 2017 | Feb 2017 | March 2017 |
| PQ | PQ | PQ | INT | | |
| | PQ | PQ | CQ | INT | |
| | | PQ | CQ | CQ | INT |

Interview Quarterly Files

- **FMLI** - Characteristics, income, taxes, weights, and summary level expenditures for the Consumer Unit (CU) *as a whole*.
- **MEMI** - Characteristics and income for each *member in the CU*.
- **MTBI** - Detailed monthly expenditures.
- **ITBI** - Consumer Unit monthly income.
- **ITII** - Consumer Unit monthly imputed income.
- **NTAXI** - Federal and state tax information for each **tax unit** in the CU.

FMLI

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

| | NEWID | QINTRVMO | QINTRVYR | FAM_TYPE | REF_RACE | FINCBTXM | EDUCAPQ | EDUCACQ | FINLWT21 | WTREP01 |
|----|---------|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|
| 1 | 2649225 | 1 | 2014 | 1 | 1 | 105993.1 | 0 | 0 | 16314.976 | NA |
| 2 | 2659655 | 2 | 2014 | 8 | 1 | 32945.4 | 40 | 20 | 19811.63 | 38898.772 |
| 3 | 2707304 | 3 | 2014 | 7 | 6 | 78756 | 0 | 0 | 1996.748 | NA |
| 4 | 2710564 | 3 | 2014 | 1 | 1 | 383110 | 0 | 0 | 22809.279 | 43627.037 |
| 5 | 2758602 | 2 | 2014 | 7 | 5 | 42666 | 0 | 0 | 20405.795 | NA |
| 6 | 2699665 | 5 | 2014 | 1 | 1 | 79108.2 | 0 | 0 | 22256.228 | 42140.843 |
| 7 | 2729605 | 8 | 2014 | 1 | 1 | 13991 | 0 | 0 | 16790.071 | NA |
| 8 | 2816652 | 7 | 2014 | 3 | 4 | 225125.6 | 18000 | 0 | 20201.087 | 42959.282 |
| 9 | 2819892 | 7 | 2014 | 3 | 1 | 11173.8 | 120 | 0 | 14619.78 | NA |
| 10 | 2838742 | 8 | 2014 | 8 | 1 | 44600 | 0 | 0 | 18727.206 | NA |
| 11 | 2782324 | 10 | 2014 | 3 | 1 | 102000 | 0 | 0 | 15364.597 | NA |
| 12 | 2875873 | 12 | 2014 | 8 | 1 | 4400 | 0 | 0 | 15827.888 | NA |
| 13 | 2927262 | 11 | 2014 | 8 | 1 | 17123 | 0 | 0 | 23832.29 | NA |



MEMI

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

| | NEWID | MEMBNO | CU_CODE | AGE | EARNER | EDUCA | SEX | MEMBRACE | SALARYXM |
|---|---------|--------|---------|-----|--------|-------|-----|----------|----------|
| 1 | 2649225 | 1 | 1 | 65 | 2 | 4 | 2 | 1 | NA |
| 2 | 2649225 | 2 | 2 | 66 | 2 | 4 | 1 | 1 | NA |
| 3 | 2659655 | 1 | 1 | 46 | 1 | 7 | 2 | 1 | 32945.4 |
| 4 | 2816652 | 1 | 1 | 42 | 1 | 8 | 1 | 4 | 212937.2 |
| 5 | 2816652 | 2 | 2 | 39 | 2 | 8 | 2 | 1 | NA |
| 6 | 2816652 | 3 | 3 | 10 | NA | NA | 2 | 6 | NA |
| 7 | 2816652 | 4 | 3 | 8 | NA | NA | 2 | 6 | NA |
| 8 | 2816652 | 5 | 3 | 5 | NA | NA | 2 | 6 | NA |

MTBI

Note: Not all the variables in the MTBI file are shown in the sample below

| | NEWID | EXPNAME | SEQNO | ALCNO | UCC | REF_MO | REF_YR | COST | COST_ | PUBFLAG |
|---|---------|----------|-------|-------|--------|--------|--------|-------|-------|---------|
| 1 | 2659655 | JEDUCNET | 3 | 0 | 670902 | 1 | 2014 | 20 | D | 2 |
| 2 | 2659655 | JEDUCNET | 3 | 0 | 670902 | 12 | 2013 | 20 | D | 2 |
| 3 | 2659655 | JEDUCNET | 3 | 0 | 670902 | 11 | 2013 | 20 | D | 2 |
| 4 | 2816652 | JEDUCNET | 27 | 0 | 670210 | 5 | 2014 | 18000 | D | 2 |
| 5 | 2816652 | JEDUCNET | 28 | 0 | 620310 | 4 | 2014 | 2800 | D | 2 |



ITBI

| | NEWID | UCC | REFMO | REFYR | VALUE | VALUE_ | PUBFLAG |
|----|---------|--------|-------|-------|------------|--------|---------|
| 1 | 2649225 | 900030 | 10 | 2013 | 1997.6 | NA | 2 |
| 2 | 2649225 | 900030 | 11 | 2013 | 1997.6 | NA | 2 |
| 3 | 2649225 | 900030 | 12 | 2013 | 1997.6 | NA | 2 |
| 4 | 2659655 | 5100 | 11 | 2013 | 18.9167 | NA | 2 |
| 5 | 2659655 | 5100 | 12 | 2013 | 18.9167 | NA | 2 |
| 6 | 2659655 | 5100 | 1 | 2014 | 18.9167 | NA | 2 |
| 7 | 2659655 | 900000 | 11 | 2013 | 2745.45 | NA | 2 |
| 8 | 2659655 | 900000 | 12 | 2013 | 2745.45 | NA | 2 |
| 9 | 2659655 | 900000 | 1 | 2014 | 2745.45 | NA | 2 |
| 10 | 2816652 | 900000 | 4 | 2014 | 17744.7704 | T | 2 |
| 11 | 2816652 | 900000 | 5 | 2014 | 17744.7704 | T | 2 |
| 12 | 2816652 | 900000 | 6 | 2014 | 17744.7704 | T | 2 |

ITII

| | NEWID | UCC | REFMO | REFYR | IMPNUM | | VALUE | VALUE_ | PUBFLAG |
|----|---------|--------|-------|-------|--------|--|------------|--------|---------|
| 1 | 2649225 | 900030 | 11 | 2013 | 1 | | 2284 | NA | 2 |
| 2 | 2649225 | 900030 | 11 | 2013 | 2 | | 2369 | NA | 2 |
| 3 | 2649225 | 900030 | 11 | 2013 | 3 | | 2034 | NA | 2 |
| 4 | 2649225 | 900030 | 11 | 2013 | 4 | | 2164 | NA | 2 |
| 5 | 2649225 | 900030 | 11 | 2013 | 5 | | 1137 | NA | 2 |
| 6 | 2659655 | 900000 | 11 | 2013 | 1 | | 2983.9167 | NA | 2 |
| 7 | 2659655 | 900000 | 11 | 2013 | 2 | | 2785.4167 | NA | 2 |
| 8 | 2659655 | 900000 | 11 | 2013 | 3 | | 2624.4167 | NA | 2 |
| 9 | 2659655 | 900000 | 11 | 2013 | 4 | | 2741.9167 | NA | 2 |
| 10 | 2659655 | 900000 | 11 | 2013 | 5 | | 2591.5833 | NA | 2 |
| 11 | 2816652 | 900000 | 4 | 2014 | 1 | | 17744.7704 | T | 2 |
| 12 | 2816652 | 900000 | 4 | 2014 | 2 | | 17744.7704 | T | 2 |
| 13 | 2816652 | 900000 | 4 | 2014 | 3 | | 17744.7704 | T | 2 |
| 14 | 2816652 | 900000 | 4 | 2014 | 4 | | 17744.7704 | T | 2 |
| 15 | 2816652 | 900000 | 4 | 2014 | 5 | | 17744.7704 | T | 2 |

NTAXI

Note: Not all the variables in the MTBI file are shown in the sample below

| | NEWID | TAX_UNIT | DEPCNT | FILESTAT | TAXYR_CY | TAXYR_PY | WAGE_HD | WAGE_SP | OTHTXINC | SOSSECB |
|---|---------|----------|--------|----------|----------|----------|---------|---------|----------|---------|
| 1 | 2649225 | 1 | 0 | 2 | 2013 | 2012 | 0 | 0 | 0 | 23971 |
| 2 | 2659655 | 1 | 0 | 1 | 2013 | 2012 | 32945 | 0 | 0 | 0 |
| 3 | 2816652 | 1 | 3 | 2 | 2013 | 2012 | 212937 | 0 | 12188 | 0 |



Interview Annual Files

- **EXPEN** – Expenditures by type (about 50 separate files)
 - ▶ Each file covers a class of expenditures such as vehicles and is derived from its corresponding section of the questionnaire.
- **FPAR** - Data about the survey.
- **MCHI** - Data about the contact history between the field representative and the respondent.

EDA (EXPN)

| | NEWID | QYEAR | SEQNO | ALCNO | JEDUCNET | EDUC_AY | EDSCHL_A | EDMONTHA |
|---|---------|-------|-------|-------|----------|---------|----------|----------|
| 1 | 2659655 | 20141 | 3 | 0 | 20 | 360 | NA | 13 |
| 2 | 2816652 | 20143 | 27 | 0 | 18000 | 300 | 2 | 5 |
| 3 | 2816652 | 20143 | 28 | 0 | 2800 | 100 | NA | 4 |



FPAR

Note: Not all the variables in the FPAR file are shown in the sample below

| NEWID | QYEAR | OUTCOME | HOW_INTV | HSG_UNIT | INFOBOOK | LANGUAGE | RECORDS |
|---------|-------|---------|----------|----------|----------|----------|---------|
| 2816652 | 20143 | | 201 | 6 | 1 | 5 | 1 |
| 2649225 | 20141 | | 201 | 6 | 1 | 5 | 4 |
| 2659655 | 20141 | | 201 | 1 | 6 | 4 | 4 |



MCHI

Note: Not all the variables in the MCHI file are shown in the sample below

| | NEWID | QYEAR | CNTCKEY | VISIT_YR | VISIT_MO | VISTWKDY | CTSTATUS | CTTYPE | INTERI |
|---|---------|-------|---------|----------|----------|----------|----------|--------|--------|
| 1 | 2649225 | 20141 | 506 | 2014 | 1 | 1 | 1 | 2 | 5 |
| 2 | 2649225 | 20141 | 507 | 2014 | 1 | 2 | 1 | 1 | 5 |
| 3 | 2659655 | 20141 | 501 | 2014 | 2 | 1 | 1 | 3 | 5 |
| 4 | 2659655 | 20141 | 506 | 2014 | 2 | 7 | 1 | 3 | 5 |
| 5 | 2659655 | 20141 | 507 | 2014 | 2 | 7 | 1 | 1 | 5 |
| 6 | 2816652 | 20143 | 205 | 2014 | 7 | 6 | 1 | 3 | 2 |
| 7 | 2816652 | 20143 | 208 | 2014 | 7 | 1 | 1 | 1 | 2 |



The Diary



Diary Files

- A Diary “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.
- A CU reports expenditures for two separate weeks.
- Each week’s diary is a separate record for each CU.
- Most Diary files are analogous to Interview files.



Diary Quarterly Files

- FMLD - a file with characteristics, income, weights, and summary level expenditures for the CU.
- MEMD - a file with characteristics and income for each member in the CU.
- EXPD - Detailed weekly expenditures.
- DTBD - Detailed annual income.
- DTID - Consumer Unit imputed income.

Two Ways to Organize the Data



FMLI

| | NEWID | QINTRVMO | QINTRVYR | FAM_TYPE | REF_RACE | FINCBTXM | EDUCAPQ | EDUCACQ | FINLWT21 | WTREP01 |
|---|---------|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|
| 8 | 2816652 | 7 | 2014 | 3 | 4 | 225125.6 | 18000 | 0 | 20201.087 | 42959.282 |

Total Education Expenditures:
\$18,000



FMLI

| | NEWID | QINTRVMO | QINTRVYR | FAM_TYPE | REF_RACE | FINCBTXM | EDUCAPQ | EDUCACQ | FINLWT21 | WTREP01 |
|---|---------|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|
| 8 | 2816652 | 7 | 2014 | 3 | 4 | 225125.6 | 18000 | 0 | 20201.087 | 42959.282 |

EDA (EXPN)

| | NEWID | QYEAR | SEQNO | ALCNO | JEDUCNET | EDUC_AY | EDSCHL_A | EDMONTHA |
|---|---------|-------|-------|-------|----------|---------|----------|----------|
| 2 | 2816652 | 20143 | 27 | 0 | 18000 | 300 | 2 | 5 |
| 3 | 2816652 | 20143 | 28 | 0 | 2800 | 100 | NA | 4 |



Additional \$2,800 ???



FMLI

| | NEWID | QINTRVMO | QINTRVYR | FAM_TYPE | REF_RACE | FINCBTXM | EDUCAPQ | EDUCACQ | FINLWT21 | WTREP01 |
|---|---------|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|
| 8 | 2816652 | 7 | 2014 | 3 | 4 | 225125.6 | 18000 | 0 | 20201.087 | 42959.282 |

EDA (EXPN)

| | NEWID | QYEAR | SEQNO | ALCNO | JEDUCNET | EDUC_AY | EDSCHL_A | EDMONTHA |
|---|---------|-------|-------|-------|----------|---------|----------|----------|
| 2 | 2816652 | 20143 | 27 | 0 | 18000 | 300 | 2 | 5 |
| 3 | 2816652 | 20143 | 28 | 0 | 2800 | 100 | NA | 4 |

EDUC_AY:

Code 100 – Fees for recreational lessons

Code 300 – Tuition

From the Questionnaire

Section 16 - Educational Expenses

Section 16 collects educational expenses, including recreational lesson fees, tuition, room and board, purchases of school books and equipment, and other educational expenses. IMPORTANT: The Census Bureau does not release to the Bureau of Labor Statistics any confidential information such as names and addresses. This information is only used during the course of the interview.

Now I am going to ask about education expenses. Please include any direct payments made for any members of your household or for anyone outside your household and any payments you made online or had automatically deducted.

Do NOT include payments made on student loans.

[1. Enter 1 to continue](#)

For definitions [Information Booklet](#) »

Since the first of the reference month, have you or any members of your household paid for -

* Read each item on list

* Baby sitting and in home day care are collected in Section 19A.

* Do not include payments on student loans. They are collected in Section 22

[1. Any recreational lessons or other instructions?](#)

[2. Preschool or child day care centers?](#)

[3. Tuition?](#)

[4. Housing while attending school?](#)

[5. Food or board while attending school?](#)

[6. Private school bus service?](#)

[7. Test preparation or tutoring services?](#)

[8. Purchase of any school books, supplies, or equipment which has not already been reported?](#)

[9. Other school related expenses not already reported?](#)

[99. None/No more entries](#)



1. Recreational Lessons
3. Tuition

From the Dictionary

EDA – Detailed Expenditures Files (EXPAN)

Educational Expenses

16 - Expenses paid by the CU

| VARIABLE NAME | DESCRIPTION | FLAG | FORMAT | NOTE |
|---------------|---|----------|---------|------|
| EDUC_AY | Item code CODED | EDUC_AY_ | CHAR(3) | |
| | 100 Recreational lessons or other instructions for members of this CU or other persons | | | |
| | 200 Nursery school or child day care centers for members of this CU or other persons | | | |
| | 300 Tuition | | | |
| | 310 Housing while attending school | | | |
| | 320 Food or board while attending school | | | |
| | 330 Combined room and board (310, 320) | | | |
| | 335 Combined tuition room and board (300, 310, 320) | | | |
| | 340 Private school bus (previously captured in the XPB file under PRIVBUSX) | | | |
| | 345 Test Preparation or tutoring services | | | |
| | 350 Purchase of any school books, supplies, or equipment which has not already been reported | | | |
| | 360 Other school related expenses not already reported. (Now includes rental of any school books or equipment not already reported, previous code 340). | | | |
| | 370 Combined expenses for books and tuition (300, 340- 350) | | | |
| | 380 Other combined educational expenses (not previously reported) (100-320, 340-360) | | | |
| | CAPI Section 16 | | | |

From the Interview Stub File

Education Section

| | | | | | | |
|---|---|--|---------|---|---|--------|
| 1 | 2 | Education | EDUCATN | G | 1 | EXPEND |
| 1 | 3 | College tuition | 670110 | I | 1 | EXPEND |
| 1 | 3 | Elementary and high school tuition | 670210 | I | 1 | EXPEND |
| 1 | 3 | Vocational and technical school tuition | 670410 | I | 1 | EXPEND |
| 1 | 3 | Test preparation, tutoring services | 670903 | I | 1 | EXPEND |
| 1 | 3 | Other schools tuition | 670901 | I | 1 | EXPEND |
| 1 | 3 | Other school expenses including rentals | 670902 | I | 1 | EXPEND |
| 1 | 3 | School books, supplies, equipment for college | 660110 | I | 1 | EXPEND |
| 1 | 3 | School books, supplies, equipment for elementary, high school | 660210 | I | 1 | EXPEND |
| 2 | | | | | | |
| 1 | 3 | School books, supplies, equipment for vocational and technical schools | 660410 | I | 1 | EXPEND |
| 2 | | | | | | |
| 1 | 3 | School books, supplies, equipment for day care, nursery | 660901 | I | 1 | EXPEND |
| 1 | 3 | School books, supplies, equipment for other schools | 660902 | I | 1 | EXPEND |

Entertainment Section

| | | | | | | |
|---|---|--|----------|---|---|--------|
| 1 | 2 | Entertainment | ENTRTAIN | G | 1 | EXPEND |
| 1 | 3 | Fees and admissions | FEESADM | G | 1 | EXPEND |
| 1 | 4 | Recreation expenses, out-of-town trips | 610900 | I | 1 | EXPEND |
| 1 | 4 | Social, recreation, health club membership | 620111 | I | 1 | EXPEND |
| 1 | 4 | Fees for participant sports | 620121 | I | 1 | EXPEND |
| 1 | 4 | Participant sports, out-of-town trips | 620122 | I | 1 | EXPEND |
| 1 | 4 | Movie, theater, amusement parks, and other (thru Q20131) | 620211 | I | 1 | EXPEND |
| 2 | | | | | | |
| 1 | 4 | Play, theater, opera, concert (new UCC Q20132) | 620213 | I | 1 | EXPEND |
| 1 | 4 | Movies, parks, museums (new UCC Q20132) | 620214 | I | 1 | EXPEND |
| 1 | 4 | Movie, other admissions, out-of-town trips | 620212 | I | 1 | EXPEND |
| 1 | 4 | Admission to sporting events | 620221 | I | 1 | EXPEND |
| 1 | 4 | Admission to sports events, out-of-town trips | 620222 | I | 1 | EXPEND |
| 1 | 4 | Fees for recreational lessons | 620310 | I | 1 | EXPEND |
| 1 | 4 | Other entertainment services, out-of-town trips | 620903 | I | 1 | EXPEND |

FMLI

| | NEWID | QINTRVMO | QINTRVYR | FAM_TYPE | REF_RACE | FINCBTXM | EDUCAPQ | EDUCACQ | FINLWT21 | WTREP01 |
|---|---------|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|
| 8 | 2816652 | 7 | 2014 | 3 | 4 | 225125.6 | 18000 | 0 | 20201.087 | 42959.282 |

EDA (EXPN)

| | NEWID | QYEAR | SEQNO | ALCNO | JEDUCNET | EDUC_AY | EDSCHL_A | EDMONTHA |
|---|---------|-------|-------|-------|----------|---------|----------|----------|
| 2 | 2816652 | 20143 | 27 | 0 | 18000 | 300 | 2 | 5 |
| 3 | 2816652 | 20143 | 28 | 0 | 2800 | 100 | NA | 4 |

MTBI

| | NEWID | SEQNO | ALCNO | EXPNAME | COST | UCC | COST_ | REF_MO | REF_YR | PUBFLAG |
|---|---------|-------|-------|----------|-------|--------|-------|--------|--------|---------|
| 4 | 2816652 | 27 | 0 | JEDUCNET | 18000 | 670210 | D | 5 | 2014 | 2 |
| 5 | 2816652 | 28 | 0 | JEDUCNET | 2800 | 620310 | D | 4 | 2014 | 2 |

Organizing Expenditure Categories

- Interview EXPN files are organized according to the survey questionnaires.
 - ▶ Use the corresponding survey dictionary for all variables
- MTBI and Diary EXPD files are organized according to hierarchical groupings for publication
 - ▶ Use the corresponding stub file for UCC definitions
- FMLI and FMLD file summary variables aggregated using UCC groupings

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