

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

Grayson Armstrong

Economist

Division of Consumer Expenditure Surveys

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File Naming Conventions

- Naming conventions used for each PUMD release are common to both Interview and Diary data.
 - ▶ YY = Year
 - ▶ Q = Quarter
 - ▶ Q1 of 2018 → FMLI181 (2017 PUMD) or FMLI181x (2018 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 “X” files are no longer utilized after the 2019 data package.



The Interview Survey



Quarter 1 (fmli201)

Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	March 2020
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	4463713	2	2021	4	4	448842.8	50000	0	29555.46	NA
2	4610701	1	2021	9	1	202964	40000	0	34998.13	69685.21
3	4685991	3	2021	4	1	318441	35528	0	35039.98	72238.42
4	4616561	1	2021	5	1	318223.8	30000	0	32297.01	66656.29
5	4685581	3	2021	9	1	243189	25737	0	29816.85	59898.29
6	4551502	1	2021	3	1	140000	25000	0	29725.31	NA
7	4397404	2	2021	8	1	110000	24400	0	14725.96	30201.54
8	4384784	1	2021	1	1	245189	18300	0	16059	NA
9	4612701	1	2021	9	1	118099.6	16000	0	13184.44	NA
10	4661751	2	2021	8	4	105960	16000	500	2694.887	NA
11	4566822	2	2021	4	1	255757	14600	0	28452.66	51349.37
12	4387124	1	2021	8	1	104500	13500	0	23129.36	NA
13	4463713	2	2021	4	4	448842.8	50000	0	29555.46	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	4384784	1	1	51	1	8	1	1	243189
2	4384784	2	2	49	2	8	2	1	NA
3	4551502	1	1	52	1	4	1	1	NA
4	4551502	2	2	49	1	7	2	1	NA
5	4551502	3	3	15	2	3	2	6	NA
6	4551502	4	3	13	NA	NA	2	6	NA
7	4397404	1	1	58	1	8	1	1	110000



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	4384784	PROPVALX	39	0	800721	12	2020	31583.33	D	2
2	4384784	PROPVALX	39	0	800721	11	2020	31583.33	D	2
3	4384784	PROPVALX	39	0	800721	10	2020	31583.33	D	2
4	4551502	QADPTAX	17	0	220211	12	2020	391.66	D	2
5	4551502	QADPTAX	17	0	220211	11	2020	391.66	D	2
6	4551502	QADPTAX	17	0	220211	10	2020	391.66	D	2
7	4397404	QADPTAX	22	0	220211	1	2021	558.33	D	2
8	4397404	QADPTAX	22	0	220211	12	2020	558.33	D	2
9	4397404	QADPTAX	22	0	220211	11	2020	558.33	D	2



ITBI

	NEWID	UCC	REFMO	REFYR	VALUE	VALUE_	PUBFLAG
1	4397404	980000	1	2021	9166.67	NA	2
2	4397404	980000	12	2020	9166.67	NA	2
3	4397404	980000	11	2020	9166.67	NA	2
4	4551502	800940	12	2020	1785	NA	2
5	4551502	800940	11	2020	1785	NA	2
6	4551502	800940	10	2020	1785	NA	2
7	4551502	900160	12	2020	11666.67	NA	2
8	4551502	900160	11	2020	11666.67	NA	2
9	4551502	900160	10	2020	11666.67	NA	2
10	4384784	800940	12	2020	1134.73	T	2
11	4384784	800940	11	2020	1134.73	T	2
12	4384784	800940	10	2020	1134.73	T	2



ITII

	NEWID	UCC	REFMO	REFYR	IMPNUM	VALUE	VALUE_	PUBFLAG
1	4397404	900000	1	2021	1	701.25	NA	2
2	4397404	900000	1	2021	2	701.25	NA	2
3	4397404	900000	1	2021	3	701.25	NA	2
4	4397404	900000	1	2021	4	701.25	NA	2
5	4397404	900000	1	2021	5	701.25	NA	2
6	4551502	800940	10	2020	1	1785	NA	2
7	4551502	800940	10	2020	2	1785	NA	2
8	4551502	800940	10	2020	3	1785	NA	2
9	4551502	800940	10	2020	4	1785	NA	2
10	4551502	800940	10	2020	5	1785	NA	2
11	4384784	800940	10	2020	1	1134.73	T	2
12	4384784	800940	10	2020	2	1134.73	T	2
13	4384784	800940	10	2020	3	1134.73	T	2
14	4384784	800940	10	2020	4	1134.73	T	2
15	4384784	800940	10	2020	5	1134.73	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	4397404	1	0	1	2020	2019	110000	0	0	0
2	4551502	1	2	2	2020	2019	70000	70000	0	0
3	4384784	1	0	2	2020	2019	243189	0	0	0



Interview Annual Files

- **EXPN** – 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.
 - ▶ Note that FPAR and MCHI are only published with the annual PUMD release

EDA (EXPN)

	NEWID	QYEAR	SEQNO	ALCNO	JEDUCNET	EDUC_AY	EDSCHL_A	EDMONTHA
1	4551502	20211	4	0	25000	300	1	12
2	4384784	20211	13	0	18000	300	1	12
3	4384784	20211	14	0	4000	310	NA	11
4	4384784	20211	15	0	300	350	1	11



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	
4384784	20211		201	6	1	5	1	3
4397404	20211		201	6	1	5	1	3
4551502	20211		201	6	1	5	1	3



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	4397404	20211	401	2021	2	2	1	3	4
2	4397404	20211	402	2021	2	2	1	3	4
3	4397404	20211	403	2021	2	5	NA	NA	4
4	4397404	20211	404	2021	2	5	1	1	4
5	4551502	20211	201	2021	1	7	3	NA	2
6	4551502	20211	202	2021	1	2	3	NA	2
7	4551502	20211	203	2021	1	4	3	NA	2
8	4384784	20211	401	2021	1	3	1	3	4
9	4384784	20211	402	2021	1	3	3	NA	4
10	4384784	20211	403	2021	1	3	1	1	4



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
1	4220234	4	2020	4	4	113998	7000	0	26183.84	NA

Total Education Expenditures:
\$7,000



FMLI

	NEWID	QINTRVMO	QINTRVYR	FAM_TYPE	REF_RACE	FINCBTXM	EDUCAPQ	EDUCACQ	FINLWT21	WTREP01
1	4220234	4	2020	4	4	113998	7000	0	26183.84	NA

EDA (EXPN)

	NEWID	QYEAR	SEQNO	ALCNO	JEDUCNET	EDUC_AY	EDSCHL_A	EDMONTHA
1	4220234	20202	11	0	160	100	NA	3
2	4220234	20202	12	0	177	100	NA	13
3	4220234	20202	13	0	7000	300	1	1



Additional \$337 ?

FMLI

	NEWID	QINTRVMO	QINTRVYR	FAM_TYPE	REF_RACE	FINCBTXM	EDUCAPQ	EDUCACQ	FINLWT21	WTREP01
1	4220234	4	2020	4	4	113998	7000	0	26183.84	NA

EDA (EXPN)

	NEWID	QYEAR	SEQNO	ALCNO	JEDUCNET	EDUC_AY	EDSCHL_A	EDMONTHA
1	4220234	20202	11	0	160	100	NA	3
2	4220234	20202	12	0	177	100	NA	13
3	4220234	20202	13	0	7000	300	1	1

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 (EXPN)

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
1	4220234	4	2020	4	4	113998	7000	0	26183.84	NA

EDA (EXPN)

	NEWID	QYEAR	SEQNO	ALCNO	JEDUCNET	EDUC_AY	EDSCHL_A	EDMONTHA
1	4220234	20202	11	0	160	100	NA	3
2	4220234	20202	12	0	177	100	NA	13
3	4220234	20202	13	0	7000	300	1	1

MTBI

	NEWID	SEQNO	ALCNO	EXPNAME	COST	UCC	COST_	REF_MO	REF_YR	PUBFLAG
4	4220234	11	0	JEDUCNET	160	620310	D	3	2020	2
5	4220234	12	0	JEDUCNET	177	620310	D	2	2020	2
	4220234	13	0	JEDUCNET	7000	670110	D	1	2020	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

Contact Information

Grayson Armstrong

Economist

Division of Consumer Expenditure Surveys

202-691-6519

Armstrong.Grayson@bls.gov

