

Sales Tax in CE Data

Barbara Johnson-Cox

Division of Consumer Expenditure Survey

CE Microdata Users Workshop

July 13-15, 2016

Washington, DC



Outline

- Sales Tax Edit Overview
- Sales Tax Rate File
- Sales Tax – Diary Survey
- Sales Tax – Interview Survey

Sales Tax Edit Overview

- Purpose: Apply “Sales Tax” to cost fields that we collect.
- Questionnaire sections that we apply Sales tax are:
 - ▶ Appliances and household equipment
 - ▶ Household Item repairs, service contracts and furniture repairs
 - ▶ Household furnishings
 - ▶ Clothing items
 - ▶ Owned vehicles
 - ▶ Vehicle operating expenses

Sales Tax Rate Files

- Separate files: One for Diary and one for Interview
 - ▶ Updated annually
 - ▶ Organized by State and item
 - ▶ Sales tax rate
 - Based on the State
 - Based on the particular item

Sales Tax Rate File

STAXTABL_2014_01 - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Paste Copy Format Painter Clipboard Font Alignment Number Styles Cells Editing

116165 : X ✓ fx .06100

C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
State FIPS Code	Record Type	Item Code	Screeners	Expense Field	Item Range	Tax Rate	Start Month	Start Year	End Month	End Year	Row Comments											
STATE	RTYPE	ITEM	SCRN	COST	ITEMRNG	RATE	STAMO	STAYR	ENDMO	ENDYR	COMMENTS											
2	3	8	8	8	7	8	2	4	2	4	200											
4 AX TABLE (INTERVIEW)																						
5 Alabama																						
6	01	APA	MAJAPPLY	MAJTAX	MAJPURX 100-999	.06000	01	1994	03	2003	Major Appliance Purchase											
7	01	APA	MAJAPPLY	MAJTAX	MAJRENT 100-999	.06000	01	1994	03	2003	Major Appliance Rental											
8	01	APB	MINAPPLY	MINTAX	MINPURX 100-999	.06000	01	1994	03	2003	Minor Appliance Purchase											
9	01	APB	MINAPPLY	MINTAX	MINRENT, 100-999	.06000	01	1994	03	2003	Minor Appliance Rental											
10	01	EQB	APPRPRYB	REPAIRTX	REPAIRX 100-110	.06000	01	1994	03	2003	Repair/Service											
11	01	EQB	APPRPRYB	REPAIRTX	REPAIRX 120-180	.06000	01	1994	03	2003	Repair/Service											
12	01	EQB	APPRPRYB	REPAIRTX	REPAIRX 190-200	.06000	01	1994	03	2003	Repair/Service											
13	01	EQB	APPRPRYB	REPAIRTX	REPAIRX 210-220	.06000	01	1994	03	2003	Repair/Service											
14	01	EQD	FURNREPY	FRNREPTX	FURNREF 100-999	.06000	01	1994	03	2001	Furniture Repair											
15	01	FRA	FURNPURY	FRNPURTX	FURNPUF 100-103	.06000	01	1994	03	2003	Home Furnishing											
16	01	FRA	FURNPURY	FRNPURTX	FURNPUF 104-104	.06000	01	1994	03	2003	Home Furnishing											
17	01	FRA	FURNPURY	FRNPURTX	FURNPUF 105-122	.06000	01	1994	03	2003	Home Furnishing											
18	01	FRA	FURNPURY	FRNPURTX	FURNPUF 130-131	.06000	01	1994	03	2003	Home Furnishing											
19	01	FRA	FURNPURY	FRNPURTX	FURNPUF 140-141	.06000	01	1994	03	2003	Home Furnishing											
20	01	FRA	FURNPURY	FRNPURTX	FURNPUF 150-160	.06000	01	1994	03	2003	Home Furnishing											
21	01	FRA	FURNPURY	FRNPURTX	FURNPUF 170-180	.06000	01	1994	03	2003	Home Furnishing											
22	01	FRA	FURNPURY	FRNPURTX	FURNPUF 181-181	.06000	01	1994	03	2003	Home Furnishing											
23	01	FRA	FURNPURY	FRNPURTX	FURNPUF 190-198	.06000	01	1994	03	2003	Home Furnishing											
24	01	FRA	FURNPURY	FRNPURTX	FURNPUF 200-205	.06000	01	1994	03	2003	Home Furnishing											
25	01	FRA	FURNPURY	FRNPURTX	FURNPUF 210-213	.06000	01	1994	03	2003	Home Furnishing											
26	01	FRA	FURNPURY	FRNPURTX	FURNPUF 214-214	.06000	01	1994	03	2003	Home Furnishing											
27	01	FRA	FURNPURY	FRNPURTX	FURNPUF 215-220	.06000	01	1994	03	2003	Home Furnishing											
28	01	CLA	CLOTHYA	CLOTHXA	CLOTHXA 100-270	.06000	01	1994	03	2003	Clothing Purchase											
29	01	CLA	CLOTHYA	CLOTHXA	CLOTHXA 280-280	.06000	01	1994	03	2003	Clothing Purchase											
30	01	CLB	CLOTHYB	CLOTHXB	CLOTHXB 290-360	.06000	01	1994	03	2003	Watch/Jewelry Purchase											
31	01	CLB	CLOTHYB	CLOTHXB	CLOTHXB 370-380	.06000	01	1994	03	2003	Watch/Jewelry Purchase											
32	01	CLB	CLOTHYB	CLOTHXB	CLOTHXB 390-390	.06000	01	1994	03	2003	Watch/Jewelry Purchase											

STAXTABD STAXTAB1

READY



Sales Tax Rate Resource Sites

- Sales Tax Rates – Resource Sites:
 - ▶ State Department of Taxation & Revenue
 - ▶ Federation of Tax Administrators – <http://www.taxadmin.org/State-tax-agencies>
 - ▶ The Sales Tax Clearinghouse – <http://thestc.com/STRates.stm>
 - ▶ Tax Foundation - <http://taxfoundation.org/article/state-and-local-sales-tax-rates-2016>
 - ▶ Avalara Tax Rates - <http://www.taxrates.com/state-rates>
 - ▶ Sale-Tax.com - <http://sale-tax.com>

Sales Tax – Diary Survey

- Respondents are instructed NOT to include sales tax for expenditures.
 - ▶ One exception: “Food Away from Home”
- For each expenditure, we match the item and the State in which the CU resides.

Sales Tax – Diary Survey

Food Away from Home

- Assigning Sales Tax Rate
 - ▶ The sales tax rate for the particular item is identified
 - Based on the item and the State
 - ▶ The sales tax “rate” is *assigned* to the item
 - ▶ However, the sales tax amount is *not* added to the cost
 - (Diary instructions tells the respondent to *include* the “sales tax” in the “cost” reported)

Sales Tax – Diary Survey

All Other Diary Sections

- Appropriate sales tax “rate” is determined
- Rate is applied to each expenditure cost:
$$\text{sales tax rate} * \text{cost} = \text{sales tax amount}$$
- Sales tax “amount” is added to the “cost” of the expenditure item to obtain “total cost”.

$$\text{sales tax amount} + \text{cost} = \text{total cost}$$

Sales Tax – Interview Survey

- In certain sections, the respondent is *asked* whether the stated expenditure includes sales tax
- Sales tax is added (when necessary) to particular items:
 - ▶ Household appliances and equipment
 - ▶ Household item repairs and service contracts
 - ▶ Household furnishings
 - ▶ Clothing, clothing services, watches, jewelry
 - ▶ Owned vehicles
 - ▶ Vehicle maintenance and repair

Sales Tax – Interview Survey

- Applied only to specific items
- The appropriate sales tax “rate” is determined
- Rate is then applied to the expenditure cost:

$$\textit{tax rate} * \textit{cost} = \textit{sales tax amount}$$

- Sales tax “amount” is finally added to the expenditure item:

$$\textit{sales tax amount} + \textit{cost} = \textit{total cost}$$

Both Surveys

- Additional Details:
 - ▶ The total cost is rounded to two decimal places
 - ▶ Output is reviewed by an analyst to ensure that taxes are not applied twice

Contact Information

Neil Tseng

Supervisory Economist

Division of Consumer Expenditure Survey

www.bls.gov/cex

Telephone: 202.691.6879

Email address: tseng.neil@bls.gov

