

Sales Tax in CE Data

Barbara Johnson-Cox

Division of Consumer Expenditure Survey

CE Microdata Users Workshop

July 14 – 17, 2015

Washington, DC



www.bls.gov

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

Clipboard Font Alignment Number Styles Cells Editing

116165 : X ✓ ✖ .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											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2	STATE	RTYPE	ITEM	SCRN	COST	ITEMRNG	RATE	STAMO	STAYR	ENDMO	ENDYR	COMMENTS										
3	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 100%



Sales Tax Rate Resource Sites

■ Sales Tax Rates – Resource Sites:

- ▶ State Department of Taxation & Revenue
- ▶ Federation of Tax Administrators – <http://www.taxadmin.org/fta/link/>
- ▶ The Sales Tax Clearinghouse – <http://thestc.com/STRates.stm>
- ▶ Tax Foundation - <http://taxfoundation.org/article/state-and-local-sales-tax-rates-2015>
- ▶ 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:

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

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

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

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



www.bls.gov