

# Sales Tax in Consumer Expenditure Data

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# Sales Tax Agenda

- Sales Tax Process Overview
- Interview Survey Process
- Diary Survey Process
- Sales Tax Inputs & Application
- Files & Output



# Sales Tax Process Overview

## Purpose:

- To **add** sales tax amounts to selected cost fields where sales tax was **not included** at collection
- Sales tax amounts are calculated by multiplying a sales tax rate to the item cost

$$\text{Sales tax amount} = \text{Cost} * r_{sales\ tax}$$



# Interview Survey Process: Collection

Respondents are asked if the cost for specific items included sales tax for these item categories:



- Household appliances and equipment
- Household item repairs & service contracts
- Household furnishings



- Clothing services, watches, jewelry, suits



- Owned vehicles
- Vehicle maintenance and repair

# Interview Survey Process: Editing

If response is “No (the sales tax is not included)”:

- Sales tax is added to the reported cost
- Data field for if sales tax was included changed from **No** to **Yes**

| Item    | State   | Cost | Was Sales Tax Included? |
|---------|---------|------|-------------------------|
| Jewelry | State A | \$10 | No                      |



| Item    | State   | Cost | Was Sales Tax Included? |
|---------|---------|------|-------------------------|
| Jewelry | State A | \$15 | Yes                     |

# Diary Survey Process: Collection

## Reported costs that **exclude** Sales Tax:



Part 1. Food and Drinks for Home Consumption (“Food”)



Part 3. Clothing, Shoes, Jewelry, and Accessories (“Clothing”)



Part 4. All Other Products, Services, and Expenses (“Other”)

## Reported costs that **include** Sales Tax:



Part 2. Meals, Snacks, & Drinks Away from Home (“Meals”)

# Diary Survey Process: Editing

| Item    | State   | Cost |
|---------|---------|------|
| T-shirt | State A | \$10 |



| Item    | State   | Cost | Sales Tax Rate |
|---------|---------|------|----------------|
| T-Shirt | State A | \$11 | 0.10           |

The sales tax data processing:

- Adds sales tax amounts to the cost fields of the items that are reported for Food, Clothing, and Other categories
- Lists sales tax rates for each item in all categories

# Sales Tax Inputs & Application

How do we obtain and apply sales tax rates?

Step  
1

The sales tax process requires the following inputs:

- U.S. State
- Reported Item
- Reported Cost
- Tax Rate<sup>1</sup>

<sup>1</sup> Sourced and maintained internally by the Division of Consumer Prices and Price Indexes



# Sales Tax Inputs & Application

How do we obtain and apply sales tax rates?

Step  
2

(a) Aggregate tax jurisdiction-level sales tax rates to a state level

States can have different sales tax rates for different items:

|                        |
|------------------------|
| <b>Groceries: 3.5%</b> |
| <b>Suits: 7%</b>       |

(b) Select rate by matching state and item from records to sales tax rate files

# Sales Tax Inputs & Application

How do we obtain and apply sales tax rates?

Step  
3

Apply sales tax to item cost to obtain total cost

$$Total\ Cost = Cost_{item} * (1 + r_{sales\ tax})$$

$$example: \$10.60 = \$10.00 * (1 + 0.06)$$

Sales tax is included in Microdata cost variables

# Files and Output

The sales tax output is reviewed by an analyst to ensure that:

- Sales tax amounts are applied only once
- All cost amounts include sales tax

Both Interview and Diary sales tax rate files are:

- Organized by state and item
- Updated annually



# Contact Information

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