Overview of the Consumer Expenditure Surveys

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Consumer Expenditure Surveys Program

CE Microdata Users’ Workshop
July 19, 2017
Mission

- The mission of the CE is to collect, process, and disseminate information that presents a statistical picture of consumer spending for the Consumer Price Index, government agencies, and private data users.

- The mission encompasses analyzing CE data to produce socio-economic studies of consumer spending, and providing CE data users with assistance, education, and tools for working with the data.
Terminology

Why a consumer expenditure survey, and not a consumption survey?

Consumer Expenditures:

“Expenditures are the acquisition costs, as measured by the actual financial obligation at the time of acquisition, in dollar terms, for any payment method, for goods and services acquired by the consumer unit from outside the consumer unit, which are intended to increase the well-being of the consumer unit.”
Terminology

**Consumer Unit (CU):**
- all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements
- a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent
- or two or more persons living together who use their income to make joint expenditure decisions
- approximately equivalent to households; 99 percent of HHs have 1 CU

**Reference Person:**
- The first person listed by the respondent when asked who owns or rents the home
History

- **1888**: First BLS expenditure survey
- **1972**: Census Bureau begins survey collection for BLS. First use of weekly Diary and 3-month recall Interview instruments
- **1979**: Continuous data collection starts
- **2003**: Computer Assisted Personal Interview (CAPI) begins
- **2004**: Imputation for missing income variables is implemented
- **2013**: Model-based estimation of income taxes is introduced
- **2015**: Elimination of the first (bounding) interview in Interview
Survey Design, Data Collection, & Research
Survey Design

- National probability sample of households designed to represent the total U.S. civilian non-institutional population
  - Includes: persons living in houses, condominiums, apartments, and group quarters such as college dormitories
  - Excludes: military personnel living on base and nursing home residents, as well as people in prisons or other institutions

- Data are collected by the Census Bureau on behalf of BLS via two independent surveys
  - Quarterly Interview Survey
  - Diary Survey
Quarterly Interview Survey

- Designed primarily to collect expenditures for large or less frequently purchased items that can be recalled in a quarterly interview, or things that you make regular monthly payments on
- Approximately 48,000 addresses are visited each year
- CUs are identified within housing units associated with those addresses
- Rotating panel design, each CU is interviewed for 4 consecutive quarters
- Approximately 7,000 CUs per quarter result in 28,000 interviews per year
Quarterly Interview Survey

- Instrument was paper-based until 2003, then converted to Computer Assisted Personal Interviewing (CAPI)
- Bounding interview eliminated in 2015
- Mode is primarily personal visit, but some decentralized telephone collection occurs
- Interview length is 65 minutes average
Diary Survey

- Designed primarily to collect detailed data on small, frequently purchased items which would be difficult to recall in a quarterly interview

- 4 sections:
  - Food for home consumption
  - Meals, snacks, and drinks away from home
  - Clothing, shoes, jewelry, accessories
  - All other items
Diary Survey

- Annual diary cases are divided equally amongst the days of the year and then assigned to the collection period month.
- Each CU is assigned two consecutive 7-day diaries with two personal visits.
- Starting in 2017, Field Representatives (FRs) have up to a month to place the diaries.
- Approximately 7,000 CUs result in 14,000 completed diaries.
- At BLS, each Diary week is treated separately for estimation purposes.
Research

- Propose and evaluate regular survey questionnaire changes
- Develop and evaluate new methods:
  - Use of incentives for increased response and engagement
  - Linking to administrative data for validation
  - Effect of record use on data quality
- Provide comprehensive information on data quality
  - Data quality profile
  - R-indicators for representivity assessments
  - Response rates and potential nonresponse bias
Response Rates

Interview Response Rates for Continuing, Outgoing, & New Counties
Response Rate = \((I / (I + A)) \times 100\%\)

Diary Response Rates for Continuing, Outgoing, & New Counties
Response Rate = \((I / (I + A)) \times 100\%\)
Dissemination & Outreach
CE Customers

- Government
  - Consumer Price Index (CPI)
  - Census Bureau (BOC)
  - Defense Department (DoD)
  - Internal Revenue Service (IRS)
  - Bureau of Economic Analysis (BEA)
  - Health and Human Services (HHS)
  - Department of Agriculture (USDA)

- Media

- Market & Academic Research

- YOU!
CPI Cost Weights

Relative importance of components in the CPI
Media

Consumer Confidence Was Up in June, According to Report

New Couch Syndrome: The Real Deal

How I vacationed like a tycoon on French Riviera on middle-class budget
Media

New Homeowners Are Strong Boost to Overall US Economy
World Property Journal · Jul 11, 2017

Inside the numbers: Supply, demand and off-lease volume
Auto Remarketing · Jul 13, 2017

What to Do When He Wants to Retire One Place, She Another
Wall Street Journal (subscription) · Jul 7, 2017
Publications

- Monthly Labor Review
- Beyond the Numbers
- Spotlight on Statistics
- Data Comparisons
- Department of Labor (DOL) blog posts
- CE Anthology
Recent Articles

Beyond the Numbers
- Insight into mortgage instruments before and after the housing collapse
- Household healthcare spending
- Comparisons of United States consumer expenditures compare with the United Kingdom and Japan

DOL Blog Posts
- Spending habits of older consumers
- Millennial Spending
- Bacon and ice cream
Data Dissemination

- New Releases & Reports
- Public Use Microdata (PUMD) files
- Tables
  - Annual calendar year tables
  - Midyear tables
  - Multiyear tables
  - Cross-tabulated tables
  - Metropolitan statistical area tables
  - Region tables and area tables
  - High-income tables
Outreach

- Survey Methods Symposium & Microdata Users’ Workshop
- Conference Presentations
  - Midwest Economic Association (MEA)
  - American Council on Consumer Interests (ACCI)
  - Southern Economic Conference (SEA)
  - American Association for Public Opinion Research (AAPOR)
  - Joint Statistical Meetings (JSM)
Modernization & Innovation

![Image of jars and a cake]

**Piecaken**
3 PIES IN 1!

- Vanilla Cake with Pumpkin Pie
- Chocolate Cake with Pecan Pie
- Vanilla Cake with Apple Pie
Online Diary (prototype)
Gemini Redesign Plan

**Wave 1**
- Advance Mailing
- Visit 1: Recall Interview
- Diary Week & Records Collection
- Visit 2: Records Interview

12 months between waves

**Wave 2**
- Advance Mailing
- Visit 1: Recall Interview
- Diary Week & Records Collection
- Visit 2: Records Interview

Respondent engagement mailings

Post Wave Non-monetary Incentive: Spending Summary Report
Spending Summary Report (prototype)

**Cellular Phone Service**
Cell phone service makes up XX% of all spending in households similar to yours. XX% of households have expenses for cell phone service. This includes only the cost of service itself, not the cost of the phone.

- **Your Household**: $120
- **Northeast**: $65
- **National**: $48

**Entertainment**
Entertainment makes up 5% of all spending in households similar to yours. XX% of households have expenses for some type of entertainment. This can include admission fees, home electronics, pets, toys, hobbies, and more.

- **Your Household**: $165
- **Northeast**: $115
- **National**: $100

**Clothing**
Clothing makes up XX% of all spending in households similar to yours. XX% of households have expenses for clothing in a typical month. In addition to regular clothing, this category includes footwear, jewelry, and clothing accessories.

- **Your Household**: $55
- **Northeast**: $68
- **National**: $67

**Donations**
Donations make up XX% of all spending in households similar to yours. XX% of households make charitable donations. This includes donations charitable, political, and social organizations.

- **Your Household**: $5
- **Northeast**: $43
- **National**: $35

**Total Spending**
This graph shows the division of household spending across all categories.

- **Rent**: 31%
- **Utilities**: 9%
- **Health**: 9%
- **Car Insurance**: 4%
- **Entertainment**: 4%
- **Education**: 17%

**Other Resources**
- Government information and services: [http://www.usa.gov/](http://www.usa.gov/)
- Mortgages, reverse mortgages, housing counseling, debt collection, money transfer, credit cards, loans, and more: [http://www.fairhousing.gov/](http://www.fairhousing.gov/)
- Food Safety: [http://www.commission.gov/](http://www.commission.gov/)
Experimental State Weights
Simulated Design of 2010 CE PSUs
Online Interactive Tools

Interactive CE Visualization Tool - 2015 Data

Demographic Categories
- Region
- Number of people in CU
- Home Owner / Renter
- CU income range
- Highest level of education in the CU
- Race of the reference person

Subcategories
Region
- Northeast

Highest level of education in the CU
- Postgraduate Degree

Options
- Independent scales
- Download Table

Number of households in your sample: 1205
Consumer Expenditure Surveys Program

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