

Consumer Expenditures

Content

The Consumer Expenditure database covers most major household expenditures in a multi-level hierarchical classification. Expenditures can be expressed either as aggregate expenditure or per household expenditure for any geographic level from the block group to national. The major categories represented are:

- Total Expenditure
 - Food and Beverages
 - Shelter
 - Utilities
 - Household Operations
 - Household Furnishings/Equipment
 - Apparel
 - Transportation
 - Health Care
 - Entertainment
 - Personal Care
 - Reading
 - Education
 - Tobacco Products
 - Miscellaneous Expenses
 - Cash Contributions
 - Personal Insurance
 - Gifts

Most of these categories include two or three levels of sub-category detail. For example, a typical classification for an item in the food group is:

Total Expenditure

- FB Food and Beverage
 - FB1 Food At Home
 - FB106 Dairy Products
 - FB10604 Cheese

This structure permits ready analysis of expenditures at any level of detail and between levels of detail. It is possible to analyze any individual category within the context of its parent category (e.g. cheese expenditures as a share of total dairy product expenditures or total food at home expenditures).

Methodology and Data Sources

The consumer expenditure database consists of a multi-level hierarchical classification of household expenditures, which covers the majority of annual household expenditures. It is derived from an

extensive modeling effort using the 2013 Consumer Expenditure Survey data from the Bureau of Labor Statistics. The BLS survey is a comprehensive survey that averages over 7,500 households four times a year using a rotating sampling frame. The use of several consecutive years of data provides a rich base of expenditure data from which to build expenditure models based on household demographics.

The database consists of a total of 396 base variables, which are aggregated in up to four levels of detail. A hierarchical structure is utilized throughout, so that it is possible to aggregate or disaggregate categories as required for analysis.

The survey includes a wide range of demographic attributes related to “consumer units” (generally households), which have been modeled separately for each discrete expenditure category. The older surveys were first inflated to the current price levels using the detailed consumer price index series. For each individual expenditure category in the survey, summary statistics were calculated for each separate element in the list below. In several cases, it was possible to utilize cross tabulation data (e.g. income by age of head of household). These variables are listed below:

- geographic region (Northeast, South, Midwest, West)
- metropolitan status (metropolitan, non-metropolitan)
- housing tenure (owner or renter)
- age of head of household (<25 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65+ years)
- size of household (1 person, 2 persons, 3 persons, 4 persons, 5 persons, 6+ persons)
- household income (<5000, 5-10000, 10-15000, 15-20000, 20-30000, 30-40000, 40-50000, 50-70000, 70000+)
- race (White, Black, American Indian, Asian) and Hispanic/Non Hispanic
- number of vehicles (none, 1, 2+ vehicles per household)

The total sample was utilized to obtain an average expenditure for each item. For each expenditure item, a series of adjustment factors were derived for each unique demographic attribute. These adjustment factors were then applied to the block group level using the same demographic variables in order to create estimates at the local level, which are consistent with local characteristics. Consistency checks were undertaken in order to ensure that the results at the block group level were consistent in the aggregate with overall income levels and published expenditures. Finally, the estimates were inflated using detailed consumer price indexes to current levels.

In total, there are 396 detail categories that can be aggregated using the field name. The field name will in all cases begin with the three-character sequence XCY (for an average expenditure) or TCY (for total

geographic area expenditure) in order to distinguish these variables from those of other databases and from other years. The next two characters are the major group (e.g. AP for apparel). The primary detail level is a one-digit number (e.g. AP1 is men's apparel). Two sequences of two digits then follow to indicate the remaining two levels of potential detail. The entire variable list is included in the file layout section.

In addition to providing average household expenditures, AGS also provides total market estimates for use in market share and demand analysis.

Retail Potential

Content

The retail potential database consists of average household and total market potential estimates by each of sixty-eight retail store types. The store types are based on the NAICS classification and are listed below:

44111 New Car Dealers	44813 Childrens' and Infant's Clothing Stores
44112 User Car Dealers	44814 Family Clothing Stores
44121 Recreational Vehicle Dealers	44815 Clothing Accessory Stores
44122 Motorcycle and Boat Dealers	44819 Other Apparel Stores
44131 Auto Parts and Accessories	44821 Shoe Stores
44132 Tire Dealers	44831 Jewelry Stores
44211 Furniture Stores	44832 Luggage Stores
44221 Floor Covering Stores	45111 Sporting Goods Stores
44229 Other Home Furnishing Stores	45112 Hobby, Toy, and Game Stores
44311 Appliances and Electronics Stores	45113 Sewing and Needlecraft Stores
44312 Computer Stores	45114 Musical Instrument Stores
44313 Camera and Photography Stores	45121 Book Stores
44411 Home Centers	45122 Record, Tape, and CD Stores
44412 Paint and Wallpaper Stores	45211 Department Stores
44413 Hardware Stores	45291 Warehouse Superstores
44419 Other Building Materials Stores	45299 Other General Merchandise Stores
44421 Outdoor Power Equipment Stores	45311 Florists
44422 Nursery and Garden Stores	45321 Office and Stationary Stores
44511 Grocery Stores	45322 Gift and Souvenir Stores
44512 Convenience Stores	45331 Used Merchandise Stores
44521 Meat Markets	45391 Pet and Pet Supply Stores
44522 Fish and Seafood Markets	45392 Art Dealers
44523 Fruit and Vegetable Markets	45393 Mobile Home Dealers
44529 Other Specialty Food Markets	45399 Other Miscellaneous Retail Stores
44531 Liquor Stores	45411 Mail Order and Catalog Stores
44611 Pharmacy and Drug Stores	45421 Vending Machines
44612 Cosmetics and Beauty Stores	45431 Fuel Dealers
44613 Optical Goods Stores	45439 Other Direct Selling Establishments
44619 Other Health and Personal Care Stores	7211 Hotels and Other Travel Accommodations
44711 Gasoline Stations with Convenience Stores	7212 RV Parks
44719 Gasoline Stations without Convenience Stores	7213 Rooming and Boarding Houses
44811 Men's Clothing Stores	7221 Full Service Restaurants
44812 Women's Clothing Stores	7222 Limited Service Restaurants

7223 Special Food Services and Catering

7224 Drinking Places

While similar to the SIC classification, the NAICS recognizes several retail types which did not exist at the time the SIC system was defined, including Computer Stores, Home Centers, and Gasoline Stations with Convenience Stores, to name a few.

Methodology and Data Sources

The primary data sources used in the construction of the database include:

- Current year AGS Consumer Expenditure Estimates
- 2007 Census of Retail Trade, Merchandise Line Sales
- Census Bureau Monthly Retail Trade

The Census of Retail Trade presents a table known as the Merchandise Line summary, which relates approximately 120 merchandise lines (e.g. hardware) to each of the store types. For each merchandise line, the distribution of sales by store type can be computed, yielding a conversion table which apportions merchandise line sales by store type.

The AGS Consumer Expenditure database was re-computed to these merchandise lines by aggregating both whole and partial categories, yielding, at the block group level, a series of merchandise line estimates which are consistent with the AGS Consumer Expenditure database.

These two components were then combined in order to derive estimated potential by store type. The results were then compared to current retail trade statistics to ensure consistency and completeness.