

Methodology Statement: Esri US Consumer Spending Database

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Esri has combined the latest Consumer Expenditure Surveys (CEX), 2010–2011, from the Bureau of Labor Statistics (BLS) to estimate current spending patterns. These continuing surveys include a diary survey of daily purchases and an interview survey of general purchases. The diary survey represents record keeping by consumer units for two consecutive weeklong periods. This component of CEX collects data on small, daily purchases that could be overlooked by the quarterly interview survey. The interview survey collects expenditure data from consumers in five interviews conducted every three months. Esri integrates data from both surveys to provide a comprehensive database on all consumer expenditures. To compensate for the relatively small CEX survey bases and the variability of single-year data, expenditures are averaged from the 2010 and 2011 surveys.

Esri has updated the models used to estimate consumer spending with its 2012 demographic updates and its Tapestry™ Segmentation system. A conditional probability model links the spending of consumer units in CEX to all households with similar socioeconomic characteristics, then integrates consumer spending with Tapestry to differentiate consumer spending by market. The distinction is particularly effective among the smallest US market areas, where differences in consumer spending can be difficult to measure, and for the largest-ticket items, where consumer preferences are more pronounced.

Direct comparison with previous CEX databases is affected by changes not only in consumer spending but also in the data. Esri's 2012 demographic updates and Tapestry system employ a Census 2010 base and sample data from the 2006–2010 American Community Survey (ACS). The changes introduced with Census 2010, including the replacement of census sample data with ACS data, also influence differences from earlier updates.

Spending patterns are developed by Tapestry market and updated to 2012 by adjusting to current levels of income. Expenditures represent the 2012 annual averages and totals. Data is reported by product or service and includes total expenditures, average spending per household, and a Spending Potential Index (SPI). While the average expenditure reflects the average amount spent per household, total expenditure represents the aggregate amount spent by all households in an area. The SPI compares the average local expenditure for a product to the average amount spent nationally. An index of 100 is average, so, for example, an SPI of 120 would show that average spending by local consumers is 20 percent above the national average.

Since 1980, the CEX program has provided the data to study consumer spending and its effect on the gross national product. Nationally, the data is also used to measure the

effects of economic policy changes or assess the welfare of populations such as the elderly or low-income families.

For more than 30 years, Esri consumer spending estimates have provided the data to measure local demand for goods and services.

**Esri's Data
Development Team**

Led by chief demographer Lynn Wombold, Esri's data development team has a 35-year history of excellence in market intelligence. The combined expertise of the team's economists, statisticians, demographers, geographers, and analysts totals nearly a century of data and segmentation development experience. The team develops datasets, including the demographic update, Tapestry Segmentation, Consumer Spending, Market Potential, and Retail MarketPlace, that are now industry benchmarks.



Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth's most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.



Contact Esri

380 New York Street
Redlands, California 92373-8100 USA

1 800 447 9778
T 909 793 2853
F 909 793 5953
info@esri.com
esri.com

Offices worldwide
esri.com/locations