

About the Data in *Who's Buying Information and Consumer Electronics*

Introduction

The spending data in *Who's Buying Information and Consumer Electronics* are based on the Bureau of Labor Statistics' Consumer Expenditure Survey, an ongoing, nationwide survey of household spending. The Consumer Expenditure Survey is a complete accounting of household expenditures. It includes everything from big-ticket items, such as homes and cars, to small purchases like laundry detergent and videos. The survey does not include expenditures by government, business, or institutions. The lag time between data collection and dissemination is about two years. The data in this report are from the 2007 Consumer Expenditure Survey, unless otherwise noted.

To produce this report, New Strategist Publications analyzed the Consumer Expenditure Survey's average household spending data in a variety of ways, calculating household spending indexes, aggregate (or total) household spending, and market shares. This report shows spending data by age, household income, household type, race, Hispanic origin, region of residence, and education. These analyses are presented in two formats—for all product categories by demographic characteristic and for all demographic characteristics by product category.

Definition of consumer unit

The Consumer Expenditure Survey uses the consumer unit rather than the household as the sampling unit. The term household is used interchangeably with the term consumer unit in this report for convenience, although they are not exactly the same. Some households contain more than one consumer unit.

The Bureau of Labor Statistics defines consumer units as either: (1) members of a household who are related by blood, marriage, adoption, or other legal arrangements; (2) 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 (3) two or more persons living together who pool their income to make joint expenditure decisions. The bureau defines financial independence in terms of the three major expense categories: housing, food, and other living expenses. To be considered financially independent, at least two of the three major expense categories have to be provided by the respondent.

The Census Bureau uses the household as its sampling unit in the decennial census and in the monthly Current Population Survey. The Census Bureau's household consists of all persons who occupy a housing unit. A house, an apartment or other groups of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live and eat with any other persons in the structure and there is direct access from the outside or through a common hall.

The definition goes on to specify that a household includes the related family members and all the unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit or a group of unrelated persons sharing a housing unit as partners is also counted as a household. The count of households excludes group quarters.

Because there can be more than one consumer unit in a household, consumer units outnumber households by several million. Young adults under age 25 head most of the additional consumer units.

How to use the tables in this report

The starting point for all calculations are the unpublished, detailed average household spending data collected by the Consumer Expenditure Survey. These numbers are shown on the report's average spending tables and on each of the product-specific tables. New Strategist's editors calculated the other figures in the report based on the average figures. The indexed spending tables and the indexed spending column (Best Customers) on the product-specific tables reveal whether spending by households in a given segment is above or below the average for all households and by how much. The total (or aggregate) spending tables show the overall size of the market. The market share tables and market share column (Biggest Customers) on the product-specific tables reveal how much spending each household segment controls. These analyses are described in detail below.

- **Average Spending** The average spending figures show the average annual spending of households on consumer electronics and information products and services in 2007. The Consumer Expenditure Survey produces average spending data for all households in a segment, e.g., all households with a householder aged 25 to 34, not just for those who purchased the item. When examining spending data, it is important to remember that by including both purchasers and nonpurchasers in the calculation, the average is less than the amount spent on the item by buyers. (See Table 1 for the percentage of households spending on consumer electronics and information products and services in 2007 and how much the purchasers spent.)

Because average spending figures include both buyers and nonbuyers, they reveal spending patterns by demographic characteristic. By knowing who is most likely to spend on an item, marketers can target their advertising and promotions more efficiently, and businesses can determine the market potential of a product or service in a city or neighborhood. By multiplying the average amount households spend on computer information services by the number of households in an area, for example, an Internet service provider can estimate the potential size of the local market for online services.

- **Indexed Spending (Best Customers)** The indexed spending figures compare the spending of each household segment with that of the average household. To compute the indexes, New Strategist divides the average amount each household segment spends on an item by average household spending and multiplies the resulting figure by 100.

An index of 100 is the average for all households. An index of 125 means the spending of a household segment is 25 percent above average (100 plus 25). An index of 75 indicates spending that is 25 percent below the average for all households (100 minus 25). Indexed spending figures identify the best customers for a product or service. Households with an index of 178 for cell phone service, for example, are a strong market for this product. Those with an index below 100 are a weak market.

Spending indexes can reveal hidden markets—household segments with a high propensity to buy a particular product or service but which are overshadowed by household segments that account for a larger share of the market. Householders aged 45 to 54, for example, account for 22 percent of the newspaper and magazine subscription market—a larger share than the 17 percent controlled by householders aged 65 to 74. But a look at the indexed spending figures reveals that, in fact, the older householders are the better customers. Householder aged 65 to 74 spend 71 percent more than the average household on newspapers and magazine subscriptions, while those aged 45 to 54 spend only about an average amount (index of 106). Newspaper and magazine publishers can use this information to target their best customers.

Note that because of sampling errors, small differences in index values may be insignificant. But the broader patterns revealed by indexes can guide marketers to the best customers.

- **Total (Aggregate) Spending** To produce the total (aggregate) spending figures, New Strategist multiplies average spending by the number of households in a segment. The result is the dollar size of the total household market and of each market segment. All totals are shown in thousands of dollars. To convert the numbers in the total spending tables to dollars, you must append 000 to the number. For example, households headed by people aged 45 to 54 spent slightly more than \$19 billion (\$19,006,203,000) on cell phone service in 2007.

When comparing the total spending figures in this report with total spending estimates from the Bureau of Economic Analysis, other government agencies, or trade associations, keep in mind that the Consumer Expenditure Survey includes only household spending, not spending by businesses or institutions. Sales data also will differ from household spending totals because sales figures for consumer products include the value of goods sold to industries, government, and foreign markets, which may be a significant proportion of sales.

- **Market Shares (Biggest Customers)** New Strategist produces market share figures by converting total (aggregate) spending data into percentages. To calculate the percentage of total spending on an item that is controlled by each demographic segment—i.e., its market share—each segment's total spending on an item is divided by aggregate household spending on the item.

Market shares reveal the biggest customers—the demographic segments that account for the largest share of spending on a particular product or service. In 2007, for example, households headed by people aged 55 or older accounted for 58 percent of spending on newspaper and magazine subscriptions. By targeting only these householders, newspaper and magazine publishers could reach the majority of their customers. There is a danger here, however. By single-mindedly targeting the biggest customers, businesses cannot nurture potential growth markets. With competition for customers more heated than ever, targeting potential markets is increasingly important to business survival.

- **Product Specific Tables** The product-specific tables reveal at a glance the demographic characteristics of spending by individual product category. These tables show average spending, indexed spending (Best Customers), and market shares (Biggest Customers) by age, income, household type, race and Hispanic origin, region of residence, and education. If you want to see the spending pattern for an individual product at a glance, these are the tables for you.

History and methodology of the Consumer Expenditure Survey

The Consumer Expenditure Survey is an ongoing study of the day-to-day spending of American households. In taking the survey, government interviewers collect spending data on products and services as well as the amount and sources of household income, changes in saving and debt, and demographic and economic characteristics of household members. The Bureau of the Census collects data for the Consumer Expenditure Survey under contract with the Bureau of Labor Statistics, which is responsible for analysis and release of the survey data.

Since the late 19th century, the federal government has conducted expenditure surveys about every 10 years. Although the results have been used for a variety of purposes, their primary application is to track consumer prices. In 1980, the Consumer Expenditure Survey became continuous with annual release of data (and a lag time of about two years between data collection and release). The survey is used to update prices for the market basket of products and services used in calculating the Consumer Price Index.

The Consumer Expenditure Survey consists of two separate surveys: an interview survey and a diary survey. In the interview portion of the survey, respondents are asked each quarter for five consecutive quarters to report their expenditures for the previous three months. The interview survey records purchases of big-ticket items such as houses, cars, and major appliances, and recurring expenses such as insurance premiums, utility payments, and rent. The interview component covers about 95 percent of all expenditures.

The diary survey records expenditures on small, frequently purchased items during a two-week period. These detailed records include expenses for food and beverages purchased in grocery stores and at restaurants, as well as other items such as tobacco, housekeeping supplies, nonprescription drugs, and personal care products and services. The diary survey is intended to capture expenditures respondents are likely to forget or recall incorrectly over longer periods of time.

Two separate, nationally representative samples are used for the interview and diary surveys. For the interview survey, about 7,000 consumer units are interviewed on a rotating panel basis each quarter for five consecutive quarters. Another 7,000 consumer units kept weekly diaries of spending for two consecutive weeks. Data collection is carried out in 91 areas of the country.

The Bureau of Labor Statistics reviews, audits, and cleanses the data, then weights them to reflect the number and characteristics of all U.S. consumer units. Like any sample survey, the Consumer Expenditure Survey is subject to two major types of error. Nonsampling error occurs when respondents misinterpret questions or interviewers are inconsistent in the way they ask questions or record answers. Respondents may forget items, recall expenses incorrectly, or deliberately give wrong answers. A respondent may remember how much he or she spent at the grocery store but forget the items picked up at a local convenience store. Mistakes during the various stages of data processing and refinement can also cause nonsampling error.

Sampling error occurs when a sample does not accurately represent the population it is supposed to represent. This kind of error is present in every sample-based survey and is minimized by using a proper sampling procedure. Standard error tables documenting the extent of sampling error in the Consumer Expenditure Survey are available from the Bureau of Labor Statistics at <http://www.bls.gov/cex/csxstnderror.htm>.

Although the Consumer Expenditure Survey is the best source of information about the spending behavior of American households, it should be treated with caution because of the above problems.

For more information

To find out more about the Consumer Expenditure Survey, contact the specialists at the Bureau of Labor Statistics at (202) 691-6900, or visit the Consumer Expenditure Survey home page at <http://www.bls.gov/cex/>. The web site includes news releases, technical documentation, and current and historical summary-level data. The detailed average spending data shown in this report are available from the Bureau of Labor Statistics only by special request.

For a comprehensive look at detailed household spending data for all products and services, see the 14th edition of *Household Spending: Who Spends How Much on What*. New Strategist's books are available in hardcopy or as downloads with links to the Excel version of each table. Find out more by visiting <http://www.newstrategist.com> or by calling 1-800-848-0842.