# U.S. Department of Labor
# Program Highlights

BLS Factsheet 93-1 (Revised March 2002)


# The Consumer Price Index—Why Published Averages Don't Always Match an Individual's Inflation Experience

The Consumer Price Index (CPI) is a measure of the average change in the prices paid by urban consumers for a market basket of goods and services. Because the CPI is a statistical average, it may not reflect your experience or that of specific families or individuals, particularly those whose expenditure patterns differ substantially from those of the "average" urban consumer.

Because it is not practical to obtain prices for all consumer transactions in the United States, the CPI uses a carefully designed set of samples to estimate price change. These samples are a product of accepted statistical procedures to make the CPI representative of the prices paid for all goods and services purchased by urban consumers. These samples include selected:

- Urban areas from all U.S. urban areas
- Households within those urban areas
- Retail establishments from which these households (consumers) purchased goods and services
- Specified and unique items—goods and services purchased by these consumers
- Housing units from the urban areas for the shelter component of the CPI

Therefore, the CPI is an average based on many diverse households and not a reflection of any particular household.

While several factors can result in the national CPI being different from *your* price experience, one major factor is how *you* actually spend your money. Estimates of expenditures reported in the Consumer Expenditure Survey for each consumer good or service are used to produce "expenditure weights" for the CPI. These weights give each good or service an importance relative to all the other goods and services in the market basket. For example, an increase of 5 percent in housing costs is more important than the same increase for telephone charges, because most consumers spend more for housing than for telephone service. Similarly, if you spend more than the average person on medical care and recreation, and prices rise sharply for these goods and services, the increase in your personal expenditures and personal price index would be larger than the increase for the average consumer. Because the CPI is a comprehensive measure, it contains items that are included in some individuals' buying patterns and excluded from others. For example, if you are a homeowner, you are more likely to buy major appliances, such as refrigerators and laundry equipment, than a renter would be.

The CPI divides the consumer market basket into eight major groups of goods and services. You can estimate the approximate difference in your expenditure pattern by estimating your relative expenditures for major groups of consumer goods and services. You could than compare them to the CPI groups' relative importance data, which are approximately the weights used in CPI estimation. For example, the approximate weights for the eight major groups in the CPI for All Urban Consumers (CPI-U) are listed below under the CPI-U average column. If your expenditure pattern is sharply different from the CPI average, the same price changes for the expenditure categories would result in different price change measures for the total market basket. An example of a hypothetical expenditure pattern for a consumer with high expenditures for medical care appears in the tabulation that follows:

| Expenditure category | Relative importance data | |
|---|---|---|
| | CPI-U average (Dec. 2001) | Hypothetical individual |
| Total (All items) | 100.0 | 100.0 |
| Food and beverages | 15.7 | 20.5 |
| Housing | 40.9 | 25.0 |
| Apparel | 4.4 | 4.5 |
| Transportation | 17.1 | 13.5 |
| Medical care | 5.8 | 25.0 |
| Recreation | 6.0 | 4.0 |
| Education and communication | 5.8 | 3.0 |
| Other goods and services | 4.3 | 4.5 |

Let's assume that there is a price increase of 5 percent for food and beverages and a 10-percent increase for medical care costs, with no price changes for the other expenditure categories. This would result in a price index increase in the published CPI of 1.4 percent. However, it would result in an increase of 3.5 percent for the hypothetical individual's price index. The calculations are shown below.

**National CPI-U Average**

| Expenditure category | Relative importance data, CPI-U average (Dec. 2001) | Relative price change | New relative expenditure |
|---|---|---|---|
| Total (All items) | 100.0 | | 101.4 |
| Food and beverages | 15.7 | x 1.05 = | 16.5 |
| Housing | 40.9 | x 1.00 = | 40.9 |
| Apparel | 4.4 | x 1.00 = | 4.4 |
| Transportation | 17.1 | x 1.00 = | 17.1 |
| Medical care | 5.8 | x 1.10 = | 6.4 |
| Recreation | 6.0 | x 1.00 = | 6.0 |
| Education and communication | 5.8 | x 1.00 = | 5.8 |
| Other goods and services | 4.3 | x 1.00 = | 4.3 |

**Hypothetical Individual**

| Expenditure category | Relative importance data, hypthetical individual | Relative price change | New relative expenditure |
|---|---|---|---|
| Total (All items) | 100.0 | | 103.5 |
| Food and beverages | 20.5 | x 1.05 = | 21.5 |
| Housing | 25.0 | x 1.00 = | 25.0 |
| Apparel | 4.5 | x 1.00 = | 4.5 |
| Transportation | 13.5 | x 1.00 = | 13.5 |
| Medical care | 25.0 | x 1.10 = | 27.5 |
| Recreation | 4.0 | x 1.00 = | 4.0 |
| Education and communication | 3.0 | x 1.00 = | 3.0 |
| Other goods and services | 4.5 | x 1.00 = | 4.5 |

The area in which you live also can affect your price experiences. You should not expect the national or a regional CPI to always mirror your price experiences. It is possible, for example, that sharp price increases in one area are offset by lower prices in other areas, resulting in a more moderate price change published for the Nation or a region.

Another factor in whether you think the CPI reflects your price experience is that most consumers notice price changes in those goods and services purchased frequently. These items, such as food, clothing, and gasoline, have relatively large price swings, because of seasonal influences in supply and demand. Less attention is paid to many items (such as most household appliances) that are purchased infrequently, which often have relatively stable prices.

The CPI is used extensively to adjust incomes, lease payments, retirement benefits, Food Stamp and school lunch benefits, alimony, and tax brackets. The CPI, because of the many ways in which it is used, affects nearly all Americans. Because the CPI is based on the buying habits of the "average" consumer, it may not be a perfect reflection of your individual price experience. However, the CPI is the most economically feasible method for providing a statistic that is most useful in all its applications.



For further information, access the CPI Internet site at **http://www.bls.gov/cpi/**, or call:

| | |
|---|---|
| BLS National Office | (202) 691-7000 |
| Regional Offices: | |
| Boston | (617) 565-2327 |
| New York | (212) 337-2400 |
| Philadelphia | (215) 597-3282 |
| Atlanta | (404) 331-3415 |
| Chicago | (312) 353-1880 |
| Dallas | (214) 677-6970 |
| Kansas City | (816) 426-2481 |
| San Francisco | (415) 975-4350 |