

Understanding the Consumer Price Index

What is the CPI?

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumer for a market basket of consumer goods and services.

The CPI is a useful tool that can help people figure out how the value of money has changed, or inversely, how the cost of things have changed. For example, using the CPI, we can figure out that a \$3000 car in 1970 is equivalent to a \$12,500 car today. The CPI is commonly used to adjust prices for inflation, but can also be used as an economic indicator. If a movie ticket cost \$.50 in 1950, we can calculate using the CPI that it would cost about \$3.00 in today's dollars. Knowing that a full price movie today costs between \$5 and \$7, we can say that movie prices have risen faster than most other goods and services.

What's in the 'basket of goods'?

There are more than 200 categories of items, arranged into eight major groups:

Food and Beverages
breakfast cereal, milk, coffee, chicken, wine, full service means and snacks

Housing
rent, fuel oil, furniture

Apparel
shirts, sweaters, dresses, jewelry

Transportation
new vehicles, airline fares, gasoline, motor vehicle insurance

Medical Care
prescription drugs, medical supplies, physicians' services, eyeglasses, hospital services

Recreation
televisions, cable television, pets and pet products, sports equipment, admissions

Education and Communication
college tuition, postage, telephone services, computer software and accessories

Other Goods and Services
tobacco, haircuts and other personal services, funeral expenses

How is the CPI determined?

The CPI market basket is based on information provided by families and individuals on what they actually bought. About 5000 families from around the country provide information on their spending habits in a series of quarterly interviews. To collect information on frequently purchased items, such as food and personal care products, another 5000 families were asked to keep diaries listing everything they bought during a two week period. Altogether, over 30,000 individuals and families provide expenditure information used to determine the importance, or weight, of the items in the basket.

Who's buying habits does the CPI reflect?

The CPI reflects the spending patterns for the population group *All Urban Consumers (CPI-U)*. The CPI-U represents about 87 percent of the total U.S. population. It is based on the expenditures of almost all residents of urban or metropolitan areas, including professionals, the self-employed, the poor, the unemployed, and retired persons. Not included in the CPI-U are the spending patterns for persons living in rural non-metropolitan areas, farm families, persons in the Armed Forces, and those in institutions, such as prisons and mental hospitals.

How do I use the CPI to make calculations?

Let's say you have \$7 in your pocket to purchase some goods and services today. How much money would you have needed in 1950 to buy the same amount of goods and services?

The CPI for 1950 = 24.1
The CPI for 1999 = 166.2

Use this formula to compute the calculation:

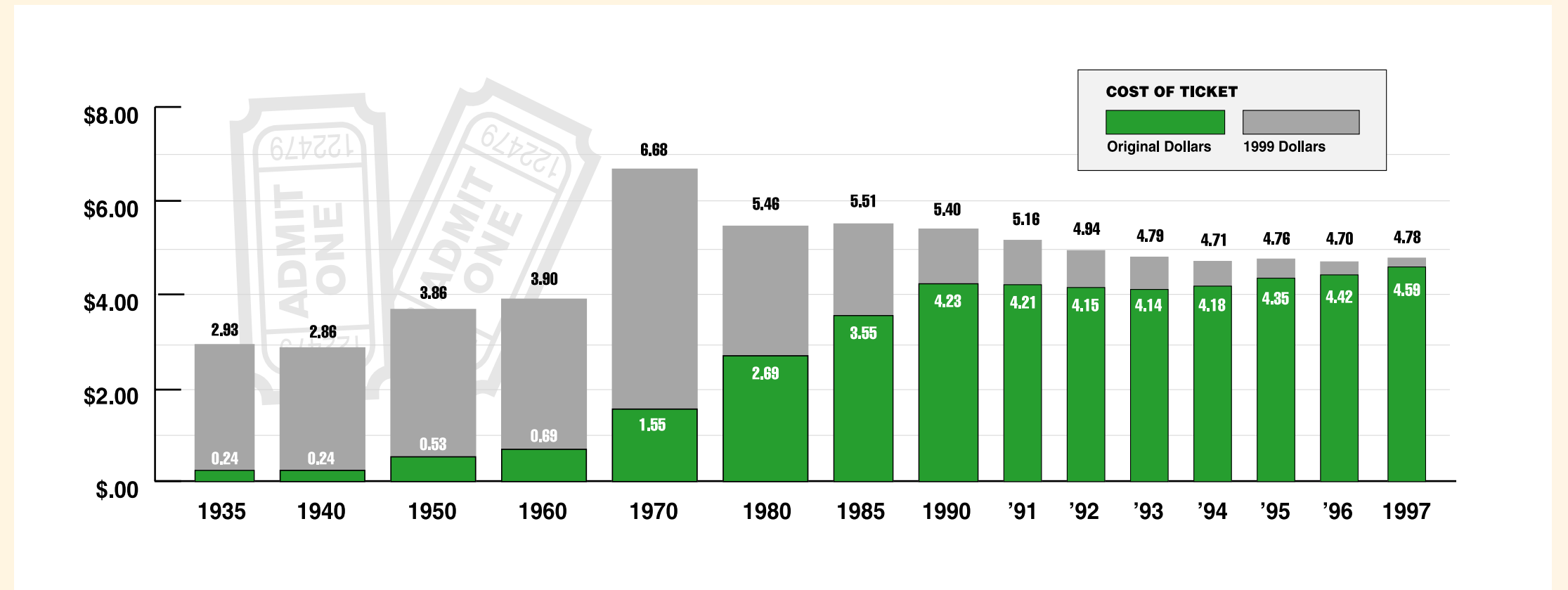
$$1950 \text{ Price} = 1999 \text{ Price} \times (1950 \text{ CPI} / 1999 \text{ CPI})$$

$$\$7.00 \times (24.1 / 166.2) = \$1.02$$

MOVIE PRICES: This graph illustrates how the CPI is used to adjust data for inflation. While the price of a movie ticket has steadily gone up since 1935, the actual cost of seeing a movie has-

n't. We see that the costliest time to have seen a movie this century was in 1970, when the national average was \$6.68 (in 1999 dollars). The difference between original dollars and 1999 dollars,

represented by the grey bars, decreases as the timeline reaches 1999. Note that the width of the bars is not uniform; this is to indicate that the periods of time measured are not the same.



MACINTOSH PRICES: Here, the CPI is used to graph real value changes in the prices of Macintosh computers over 15 years. The lighter blue columns indicate mid-range computers (all-in-one Macs

such as the Classic and iMac fall into this category.) that would be purchased by average consumers. The darker blue columns indicate high-end computers (e.g., Ilci and G4), which represent the fastest

and most expensive products in the industry. This chart shows the cost of owning a Macintosh computer (both high-end and mid-level lines) has dropped significantly since 1984.

