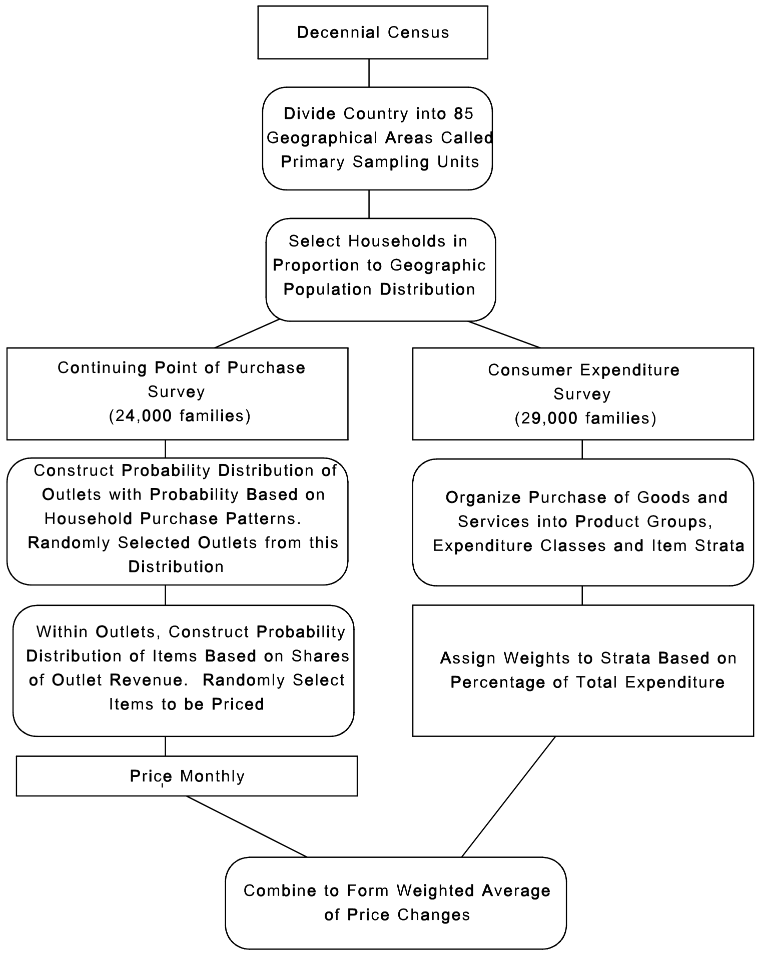
Emad A. Zikry, President and Chief Executive Officer

Position Paper
The CPI Calculation

In a report to the Senate Finance Committee, the Boskin Commission (an advisory group set up by the Senate Finance Committee to study biases in the calculation of the consumer price index or CPI) estimated that the CPI overstates inflation by approximately 1.1 percentage points per year. This has triggered much discussion about the need for revisions to the calculation of inflation. If the CPI were reduced, the growth rate of entitlement spending would in turn be significantly reduced. This would mainly affect the elderly whose Social Security and Medicare payments are indexed off the CPI.

The CPI is a measure of price changes for urban consumers, a category that includes approximately 80% of the population. The table below shows how data is compiled and computed to produce the CPI.



The table also shows that the calculations are done in a systematized and precise manner, which has been refined by the Bureau of Labor Statistics since the CPI was first computed in 1921. It is important to note that any significant changes in the calculation of the CPI would make the comparison of historical data irrelevant since the data would not be comparable. This would create problems in measuring the current economy with respect to past cycles.

In studying the CPI, the commission found two categories which cause significant upward bias in the CPI:

Substitution bias - the CPI assumes that consumers buy the same basket of goods even though over time their purchases should gravitate towards cheaper goods;
Quality bias - the CPI fails to fully capture the improved quality of products, particularly for services and for high-tech goods such as new medical procedures and consumer electronics.

The combined upward bias of these two categories is approximately 1.0%, or almost all of the bias found to be prevalent in the commission's study.

The Boskin Commission however, has overlooked an important aspect of the CPI calculation which would offset the substitution and quality biases of the index. The housing component of the CPI accounts for 41% of the total basket of goods that are included in the index. Within this portion of the index, housing costs representing lodging (or the cost of shelter) equals 20% of the total, with the balance going to utilities, furnishings, housekeeping and renters costs. The lodging component of the housing portion of the CPI is currently calculated using an "owners rental equivalent". Homeowners are surveyed to define property type and location and are then compared to similar rentals. This in theory approximates the imputed services which can be derived from America's housing stock. The actual process of market based transactions does not enter into the equation at all. However, the average prices of newly built homes rose about 5.0% and quotes for existing homes rose 6.0% for the twelve months ending December 1996. This is in direct contrast to a 2.9% increase in the housing component of the CPI. Given that the housing or "owners equivalent rental" component is 20% of the CPI, housing *understates* the CPI by about 0.5%, creating a *downward bias* in the calculation of the CPI and offsetting a material portion of the upward bias found in the substitution and quality arguments.

Vanderbilt believes that no action will be taken to adjust the CPI. The housing component helps to offset any artificial increases in other areas. Additionally, the strong growth experienced by the U.S. economy coupled with the simultaneous and automatic reduction in certain entitlement programs has greatly reduced the pressure of technically adjusting the CPI.

Vanderbilt Research Team