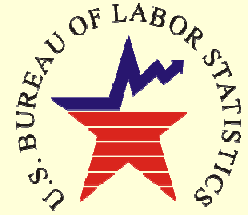


U.S. Bureau of Labor Statistics



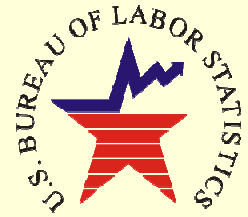
Some CPI Core Issues

BEA Advisory Council Meeting

November 3, 2006

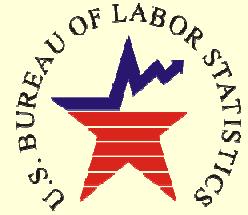
John S. Greenlees
Associate Commissioner
Prices and Living Conditions
U.S. Bureau of Labor Statistics

Previous studies of CPI vs. PCE



- J. Triplett (1981) “Reconciling the CPI and the PCE Deflator”
- Updates in MLR and CPI Detailed report (1985-91)
- D. Fixler and T. Jaditz (1997) “An Examination of the Difference Between the PCE Deflator and the CPI”
- T. Clark (1999) “A Comparison of the CPI and the PCE Price Index”
- D. Lebow and J. Rudd (2003) “Measurement Error in the Consumer Price Index: Where Do We Stand?”
- D. Johnson (2003) “Comparison of Movements in the CPI and PCE Price Indexes”

CPI-PCE Decomposition



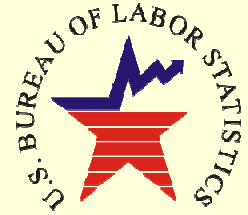
Component Effects

- Formula
- Scope
- Prices
- Weights

All these effects vary in importance over time

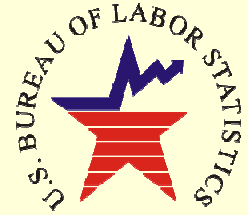
BLS and BEA are collaborating on a decomposition for recent years

CPI Less Food and Energy



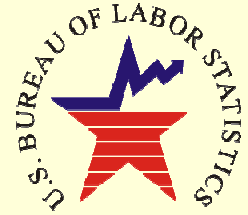
- Published since 1970s
- Was requested by Cost of Living Council
- BLS does not call this index the “Core CPI”
- No claim by BLS that it provides a signal on underlying CPI trend
- Other alternative indexes published by BLS, e.g., CPI Less Energy

CPI Precision Change



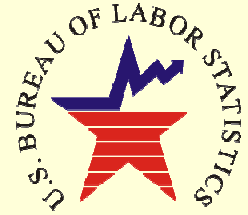
- BLS will begin publishing CPI indexes to three decimal places instead of one
- Percent changes will be calculated from the three decimal place indexes
- Percent changes will be rounded to one decimal place for publication
- Implementation in February 2007 with the release of the January 2007 CPI

Current CPI Practice

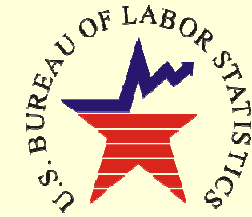


- Indexes are calculated with double precision
- Indexes are rounded and published to one decimal place
- Percent changes are derived from those rounded indexes in order that users can replicate the calculation
- Percent changes are rounded to one decimal place
- Same procedures are used in PPI, IPP, ECI

Problem with Current Approach



- Much media and market attention on small changes in index growth—especially for “Core”
- Percent changes based on rounded index levels vary from those based on unrounded index levels about 25 percent of the time (Williams, 2006)
- Rounding also can result in seemingly inconsistent aggregate results



Reaction to Small “Core” Changes

“The core CPI, which strips out volatile food and energy costs, rose 0.3 percent. It was the biggest rise in the core rate since September and broke a string of four straight 0.2 percent gains.

Wall Street economists had braced for a milder 0.3 percent rise in overall consumer prices and had expected another 0.2 percent gain outside food and energy.

The report added to financial market inflation jitters and increased speculation the Federal Reserve, which raised credit costs on Tuesday, might step up the pace of its rate rise to keep inflation under wraps.”

Reuters, March 24, 2005

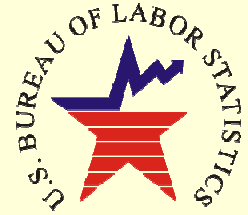
Rounding Example



CPI-U Less Food and Energy

	<u>Unrounded</u>	<u>Rounded</u>
Index Jan 2006	203.1893881	203.2
Index Feb 2006	203.5468492	203.5
Pct Change	0.2	0.1

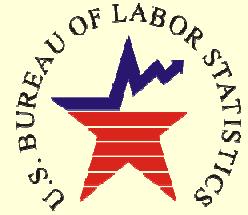
Aggregation Example



Published CPI-U Percent Changes, July 2002

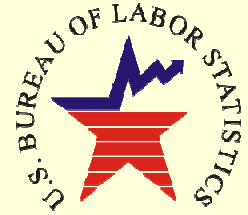
All Items	0.1
Food	0.2
Energy	0.4
“Core”	0.2

Implementation



- Official historical data will not be changed to three decimal places
- Upon request, BLS will provide unofficial historical CPI data on a NSA basis calculated to three decimal places for the period from 1987 through 2006
- SA historical data will not be recalculated based on 3-decimal place indexes

Statistical Reliability



- Publishing indexes to three decimal places will not result in more accurate indexes
- Small percent changes published to one decimal place will be more accurate because they will be based on more precise three decimal place indexes