

WSS Conference on the Consumer Price Index

Date and Time: Tuesday, October 28th
1:00 - 4:30 p.m.

Location: Bureau of Labor Statistics Conference Center

To be placed on the seminar attendance list at the Bureau of Labor Statistics, you need to e-mail your name, affiliation, and seminar name to wss_seminar@bls.gov (underscore after 'wss') by noon at least 2 days in advance of the seminar, or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2 Massachusetts Avenue, NE. Use the Red Line to Union Station.

BLS cafeteria is open from 6:30 a.m. to 3:00 p.m. Union Station has an extensive food court.

Sponsor: Methodology Section

WebEx event address for attendees:

<https://dol.webex.com/dol/j.php?MTID=m644630d4bb233074d5e1f2e3f4ce72c4>

For audio: Call-in toll-free number (Verizon): 1-866-747-9048
Call-in number (Verizon): 1-517-233-2139
(US) Attendee access code: 938 454 2

Note: Particular computer configurations might not be compatible with WebEx.

Schedule

Time	Speaker	Point of Contact
1:00	Michael Horrigan	Horrigan.Michael@bls.gov
1:20	Stephen Reed	reed.stephen@bls.gov
2:05	John Greenlees	jlgreenlees@verizon.net
2:40	William Johnson	Johnson.Bill@bls.gov
3:10	Intermission	
3:25	Owen Shoemaker	Shoemaker.Owen@bls.gov
4:00	Ralph Bradley	Bradley.Ralph@bls.gov
4:30	Questions and Answers	

Abstracts

Overview of the Consumer Price Index

The Consumer Price Index (CPI) seeks to measure the change in the cost of living by measuring the change in prices that consumers pay for a market basket of goods and services. Production of the CPI requires a geographic sample, an outlet sample, and a market basket with appropriate weights. With those in place, procedures for selecting the specific items to be priced, collecting prices, and translating the price data into indexes are required. Issues such as seasonality and missing prices must be addressed, and decisions must be made as to how and what to publish. This talk gives an overview of the CPI, including its measurement objective, the surveys that underpin it, the procedures for collecting and aggregating price data, and finally its publication.

-Stephen B. Reed, Economist, Consumer Price Index Program, U.S. Bureau of Labor Statistics

The Chained CPI-U: Methods and Issues

The Chained Consumer Price Index for all Urban Consumers, or C-CPI-U, is the third CPI series produced and reported by the BLS each month (along with the CPI-U and CPI-W). The C-CPI-U was introduced in 2002, in order to provide a closer approximation to the economic concept of a Cost of Living Index, or COLI. For that reason, a number of analysts and advisory panels have proposed that the C-CPI-U replace the CPI-U and CPI-W in federal taxation and benefit programs. This talk describes the unique aspects of the C-CPI-U's construction, and how these have led to differences in the measured rates of consumer price change between the C-CPI-U and the other CPI series. Conceptual and operational issues in the use of the C-CPI-U for indexation will also be discussed.

-John S. Greenlees, Former Associate Commissioner for Prices and Living Conditions, U.S. Bureau of Labor Statistics

The Surveys of the CPI: How They Fit Together and General Sampling Features

The CPI uses data drawn from many surveys including Commodities and Services, Housing, Consumer Expenditures, and TPOPS. Data from these surveys interact with a representative sample of geographic areas drawn to represent the urban population of the U.S. The sampling procedures for these samples share significant commonalities but each have some distinct features to take into account.

-William Johnson, Chief of Survey Research and Analysis Branch, U.S. Bureau of Labor Statistics

Variance Estimation for the CPI-U

In 1998, the CPI Program adopted a Stratified Random Group (SRG) methodology for estimating 1-, 2-, 6- and 12-month variances (and so, standard errors) for every aggregate CPI index that the CPI program produces at and above the basic Index_Area—Item_Stratum level. A Jackknife estimator is used to calculate the variances for the index series which are formed from item groups lower than the Item_Stratum level. All these variances results are produced each month, immediately after CPI's official monthly release. This talk describes the constituent design structures and methodologies of the CPI-U's variance system. Summary and comparative variance results will also be presented and discussed.

-Owen J. Shoemaker, Mathematical Statistician, OPLC: Survey Research and Analysis Branch, U.S. Bureau of Labor Statistics

A Glimpse into the Future CPI

The American economy is changing quickly and this will induce future consumers to behave differently from past consumers. There is increasing reliance on online purchases in place of “bricks and mortar” retailer purchases. The frequency of product changes is becoming increasingly rapid. Many industries such as the airlines, cable companies and health providers are consolidating and in some cases are giving fewer consumer choices. All these changes place new challenges on the current CPI manual sampling program. When products are being replaced at a faster rate, it is increasingly difficult to draw representative samples and to accurately adjust prices for quality change. I discuss these challenges and describe various BLS pilot projects that address these challenges. Several of these projects investigate the use of “big data” supplied from private vendors or from web scraping programs to replace the current manual system. I discuss how we construct price indexes from these new sources. Specifically, I explain how adjustments are made to account for the differences between the vendor's sampling methods and CPI sampling methods, for different geographical coverage between the vendor and the CPI program and for different information that that is collected on product characteristics. Finally, I discuss the opportunities to make better quality adjusted price estimates when products are rapidly changing.

-Ralph Bradley, Division of Price and Number Research, U.S. Bureau of Labor Statistics