The Actuary

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CPI cont'd

market basket changes. The CPI, however, is based on price movement for a fixed market basket and does not reflect shifts over time in the quantities of goods purchased. These shifts occur gradually and there is no clear evidence to indicate the frequency with which the market basket should be updated. Historically, the CPI market basket has been held fixed for a period of 10 years or so. The past three market basket revisions took place in 1964, 1978, and 1987, reflecting consumer spending patterns during 1960-61, 1972-73, and 1982-84, respectively. Beginning in 1980, annual consumer expenditure surveys have been conducted so that changes in consumers spending can be monitored and the need for more frequent revisions to the market basket can be evaluated.

Sample Design: The two most recent CPI revisions were also accompanied by markedly improved sample designs that increased the CPI's efficiency and quality. The 1978 revision introduced full multi-stage statistical probability sampling into the CPI, greatly improving its reliability. The 1987 revision introduced an optimum design using a cost constrained minimum variance model and further improved the statistical reliability. Because of budget reductions in 1988, the sample of cities was reduced from 91 to 85. Even with these cuts, the new design still produces estimates of price change that have less variation than those based on the sample of cities prior to the 1987 revision. BLS is in the process of compiling measures of sampling variance and should have them available for release in the fall of 1989.

Future enhancements

The worldwide explosion in new technology presents new challenges and opportunities for the future of the CPI and BLS. Barring further budget cuts, a number of projects underway should yield future improvements. Current research exploring new index methodologies could allow for more frequent and less costly updating of the CPI market basket. New survey technologies that use computer-assisted telephone-interviewing techniques are also being evaluated to determine whether they will speed the introduction of new products into the CPI framework. Similar technologies should aid in the collection of more consistent, higher quality information in respondent dependent interviews by controlling the flow and editing data during the interview. In addition, plans are being developed to use knowledge-gathering expert systems to aid commodity specialists in ensuring consistent decisions when determining product comparability and measurable quality differences.

The BLS continues to strive for improvements in quality, timeliness, and accuracy of all economic information it produces despite the tight budgetary climate. Similar efforts are being made in the other programs on prices, unemployment, employment, wages, productivity, and occupational injury statistics for which BLS has responsibility.

Janet Norwood is Commissioner of Bureau of Labor Statistics, U.S. Department of Labor. She is not a member of the Society.

Behind the scenes: The Social Security COLA for 1988

by Bruce D. Schobel

On October 21, the Bureau of Labor Statistics (BLS) released the Consumer Price Index (CPI) for September. With that figure, the Social Security Administration calculated the Social Security cost-of-living adjustment (COLA) for December 1988, which was 4.0%. This COLA was announced in the *Federal Register* October 31, and nearly 39 million beneficiaries received that increase with their December checks, payable on January 3, 1989. Although the COLA announcement was quite routine, much was going on behind the scenes.

Automatic cost-of-living adjustments have been part of the Social Security Act since 1972. The first automatic COLA was effective for June 1975. The only major change in the procedure came when the Social Security Amendments of 1983 shifted the COLA effective date from June to December. Since 1984, the COLA has been equal to the percentage increase in the average CPI for the third calendar quarter of the year over the corresponding average for the third quarter of the previous year, rounded to the nearest 0.1%. (The 3% "trigger," which never took effect, was repealed in 1986.)

The law does not say which CPI to use for the COLA because when automatic adjustments were enacted, only one existed. That CPI, now called the CPI for Urban Wage Earners and Clerical Workers (CPI-W), is specified in Social Security regulations as the one to use. The use of this index to adjust Social Security benefits has been criticized, especially by former Senator John Melcher, past Chairman of the Senate Special Committee on Aging, because it excludes the vast majority of beneficiaries, who are not currently wage earners or clerical workers. (Senator Melcher lost his bid for reelection in 1988 and is not a member of the 101st Congress.)

In 1987, Congress directed BLS to study the concept of a special CPI based on a market basket of goods and services purchased by the elderly (although not all beneficiaries are elderly). The BLS report, issued in June 1988, emphasized the limitations of such a special index. When BLS Commissioner Janet Norwood testified before the Senate Committee on Aging in October, she repeated the conclusions of the June report but was willing to conduct a more thorough, three-year study of the matter.

In the meantime, the Senate adopted a compromise position – that the CPI for All Urban Consumers (CPI-U) be substituted for the narrower

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CPI-W. While the CPI-U is not based exclusively on the purchases of the elderly, at least it includes most of them in its coverage. The Senate position was included in its version of the tax technical-corrections bill. (Actually, the provision required all federal agencies to use the CPI-U; the IRS already uses it for indexing tax brackets and the personal exemption.) The Administration testified against the switch, saying that it would make no difference, and the provision was dropped in conference.

Another issue considered simultaneously involved changes to the CPI-W itself. In January 1988, BLS changed the base period for the index from 1967 to 1982-84. The CPI for the base period is set equal to 100.0. Accordingly, the "official" CPI value for January dropped from about 340 to about 115. One might not consider this too important, but Social Security regulations require the average CPI to be rounded to the nearest one-tenth of a point, before the percentage increase is calculated. Such rounding has a greater effect on a smaller figure.

This was not just an academic consideration. To obtain the actual 4.0% COLA, the 1967-basis CPI-W needed to reach 352.5 in September, a 6.3% annual rate of change over August. On the 1982-84 basis, the CPI-W needed to reach 118.4, a 7.4% annual rate of change. In other words, if the CPI rose at an annual rate between 6.3% and 7.4%, the new basis would produce a COLA of 3.9%, but the old basis would produce 4.0%. For a program paying benefits of $230 billion in 1989, the difference is not small, and it would continue into future years.

The Social Security Administration chose to use the 1982-84 basis, as did every other federal agency that uses the CPI. Fortunately, the actual CPI-W values for September were 353.0 on the old basis and 118.5 on the new one. The COLA would have been 4.0% either way!

Bruce D. Schobel is Senior Consultant, Social Security Division, Mercer-Meidinger-Hansen Inc.

In memoriam

Morgan H. Alvord FSA 1942
Joseph A. Christman FSA 1929
George W.K. Grange ASA 1936
Joseph T. McNeely ASA 1929
Donald C.H. Potter ASA 1932

FACTUARIES

by Deborah Poppel

This is the second in a series of profiles of members of the Society's Board of Governors.

Name: C. S. (Kit) Moore

Birthday: September 17, 1940, 12:15 a.m.

Birthplace: Toronto, Ontario, Canada

Current hometown: Toronto

Employer: William M. Mercer Limited

Children: Graeme, 22; David, 20; Jennifer, 17

My first job was: as a summer student for Manufacturer's Life Insurance Company, converting insurance policy dividends from pounds, shillings, and pence into dollars and cents – by hand!

The number of exams I flunked: 3 or 4, which includes my only pass course at university – religious knowledge!

The book I recommend most often: *The Wanderer* by Alain-Fournier

The last movie I saw: *Planes, Trains, and Automobiles* (also one of the funniest I've seen!)

Nobody would believe it if they saw me: home for dinner before 6 p.m.

The TV show I stay home to watch: is yet to be created.

If I could change one thing about myself: I'd start with my socks.

When I'm feeling sorry for myself: I shop.

My fantasy is: to spend an evening with Xaviera Hollander (The Happy Hooker).

The silliest thing I've ever done is: to spend an evening with Xaviera Hollander.

If I could do it over I'd have: overdone it again.

My proudest actuarial moment was: becoming one.

The best time of my life was: the last 10 years or so!