

# Experimental Consumer Price Index for Americans 62 Years of Age and Older, 1995-99

The Consumer Price Index (CPI) of the Bureau of Labor Statistics (BLS) measures the average change in prices over time for consumer goods and services for two population groups. The CPI for All Urban Consumers (CPI-U) represents the spending habits of about 87 percent of the population of the United States. The CPI for Urban Wage Earners and Clerical Workers (CPI-W), based on a subset of the CPI-U population, represents about 32 percent of the U.S. population.

The CPI also calculates an experimental price index, the CPI-E, for Americans 62 years of age or older. BLS plans to update these CPI-E data every other year in the *CPI Detailed Report*.<sup>1</sup> This article reviews price changes seen in the experimental CPI-E from December 1994 through December 1999 and reiterates the methods, sources of data, and limitations of the experimental index described in earlier articles.<sup>2</sup> Over the 5-year period from December 1994 through December 1999, the experimental CPI-E rose 13.2 percent. This compares to increases of 12.4 and 12.2 percent for the CPI-U and CPI-W, respectively.

## Methodology, sources of data, and limitations

Although this study indicates a higher overall inflation rate for older Americans—compared with the official CPI population groups—any conclusions drawn should be used with caution because of the various limitations inherent in the methodology.

**Expenditure weights.** For purposes of index estimation, the CPI is divided into strata cross-classified by 38 areas and 211 item categories. For each CPI population group, these area and item strata are weighted according to their importance in the spending patterns of the respective population. The definition of the population of older Americans used for the experimental price index is all urban noninstitutionalized consumer units that met one of the following three conditions:

- Unattached individuals who were at least 62 years of age
- Members of families whose reference person (as defined in the Consumer Expenditure Survey) or spouse was at least 62 years of age
- Members of groups of unrelated individuals living together who pool their resources to meet their living expenses, and whose reference person was at least 62 years of age

In the 1993-95 Consumer Expenditure Survey, which is used as the source of expenditure weights in the CPI, 22.2 percent of the urban consumer units met the above definition for older Americans. Because the number of consumer units used for determining weights in the experimental index was relatively small, expenditure weights used in the construction of the experimental price index have a higher sampling error than those used for the larger populations.

For each population group, the base expenditure weight of any component represents the actual expenditure on that component in the base period. The *relative importance* of any component is its base expenditure weight updated for changes in relative prices expressed as a percent of the total updated expenditures for the population. The relative importance data for the CPI-U, CPI-W, and CPI-E population groups for December 1999 are shown in table 1.

**Areas and outlets priced.** The CPI-E is a weighted average of price changes for the same set of strata and collected from the same sample of urban areas used in calculating the CPI-U and CPI-W. Because the strata are defined by metropolitan area, as well as item category, the CPI-E reflects the general geographic distribution of the elderly population.

Retail outlets are selected for pricing in the CPI on the basis of data reported in a separate survey representing all urban households. The experimental index also uses the same retail outlet sample. The outlets thus selected may not be representative of the places of purchase (for example, the types of stores or their locational distribution within metropolitan areas) of the older populations.

**Items priced.** One major limitation of the experimental index is that the item samples priced within selected outlets are determined with probabilities proportional to total (and not elderly) expenditures. As a result, the specific items

<sup>1</sup> The Experimental Price Index for the Elderly (CPI-E) also is updated monthly. Data may be obtained by calling (202) 691-7000.

<sup>2</sup> A May 1994 *Monthly Labor Review* article by Nathan Amble and Kenneth J. Stewart, "Experimental Price Index for Elderly Consumers," provided estimates of the series for all items and for major CPI expenditure components from December 1982 through December 1993. The July 1998 *Consumer Price Index Detailed Report* summarizes CPI-E price changes from 1993 to 1997.

**Table 1. CPI relative importance data of selected expenditure groups, December 1999.**

| Expenditure group                  | Population |        |        |
|------------------------------------|------------|--------|--------|
|                                    | CPI-U      | CPI-W  | CPI-E  |
| All items .....                    | 100.00     | 100.00 | 100.00 |
| Food and beverages .....           | 16.30      | 17.88  | 14.50  |
| Food at home .....                 | 9.60       | 10.72  | 9.69   |
| Food away from home .....          | 5.71       | 6.11   | 4.07   |
| Alcoholic beverages .....          | .99        | 1.05   | 0.74   |
| Housing .....                      | 39.64      | 36.45  | 45.80  |
| Shelter .....                      | 30.24      | 27.42  | 35.37  |
| Rent .....                         | 7.04       | 8.52   | 4.47   |
| Owners' equivalent rent .....      | 20.47      | 17.22  | 27.11  |
| Apparel .....                      | 4.68       | 5.03   | 3.21   |
| Transportation .....               | 17.45      | 19.72  | 13.81  |
| Medical care .....                 | 5.77       | 4.71   | 9.97   |
| Medical care commodities .....     | 1.27       | .93    | 2.63   |
| Medical care services .....        | 4.50       | 3.78   | 7.35   |
| Health insurance .....             | .25        | .21    | .43    |
| Recreation .....                   | 6.01       | 5.79   | 4.65   |
| Education and communication .....  | 5.42       | 5.30   | 3.10   |
| College tuition .....              | 1.15       | 0.85   | 0.43   |
| Other goods and services .....     | 4.73       | 5.13   | 4.96   |
| Tobacco and smoking products ..... | 1.26       | 1.84   | 0.86   |

selected for pricing in each outlet may not be representative of the experimental index population.

**Prices collected.** A final source of uncertainty about the appropriateness of using the CPI-U prices for the index of the older population concerns the availability of discount prices for older Americans. For example, senior-citizen discount rates are used in the CPI in proportion to their use by the urban population as a whole. To the extent that senior-citizen discounts take the form of a fixed percentage discount from the regular price, this may not be a problem. However, if the discount is not expressed as a per-

centage of the price, or if that percentage is periodically adjusted, the scarcity of senior-citizen discount prices in the current CPI could lead to error in the experimental index.

Because of the above limitations, any conclusions drawn from these analyses should be treated as tentative.

### Relative behavior of price indexes

Tables 2 and 3 show the behavior of the CPI-E, CPI-U, and CPI-W for selected expenditure categories for the period December 1994 through December 1999. Over this 5-year period, the reweighted experimental price index for older Americans (CPI-E) rose 13.2 percent. This compares with increases of 12.4 percent for the CPI-U and 12.2 percent for the CPI-W.

The relative importance data for the CPI-E and the CPI-U and CPI-W populations show that older Americans devote a substantially larger share of their total budgets to medical care. (See table 2.) In addition, for each population group, medical care prices rose significantly more rapidly than the overall (all items) index during this 5-year period. For this reason, the medical care component accounts for a significant portion of the higher rate of increase measured for the CPI-E relative to the two official population groups during the 1994-99 period.

Price change for each major expenditure group varied by population, because the distribution of expenditures on the products and services within the major groups varied among the three index populations. For example, within the housing major group, the weight for owner-occupied shelter is higher for the elderly than it is for the CPI-U and CPI-W populations, as a higher proportion of elderly own homes than the other population groups. The weight for rent, on the

**Table 2. Percent changes for CPI population groups, 1995-98, for all items and for major expenditure groups.**  
(December-to-December change)

| Year | Population | All Items | Food and beverages | Housing | Apparel | Transportation | Medical care | Recreation | Education and communication | Other goods and services |
|------|------------|-----------|--------------------|---------|---------|----------------|--------------|------------|-----------------------------|--------------------------|
| 1995 | CPI-U      | 2.5       | 2.1                | 3.0     | 0.1     | 1.5            | 3.9          | 2.8        | 4.0                         | 4.3                      |
|      | CPI-W      | 2.5       | 2.2                | 2.8     | .2      | 1.6            | 4.0          | 2.6        | 4.0                         | 4.1                      |
|      | CPI-E      | 2.8       | 2.0                | 3.2     | .1      | 1.4            | 3.8          | 3.7        | 3.3                         | 4.2                      |
| 1996 | CPI-U      | 3.3       | 4.2                | 2.9     | -.2     | 4.4            | 3.0          | 3.0        | 3.4                         | 3.6                      |
|      | CPI-W      | 3.3       | 4.2                | 2.9     | -.2     | 4.2            | 3.1          | 3.0        | 3.3                         | 3.4                      |
|      | CPI-E      | 3.4       | 4.4                | 3.1     | -.7     | 5.1            | 2.7          | 2.3        | 2.3                         | 3.4                      |
| 1997 | CPI-U      | 1.7       | 1.6                | 2.4     | 1.0     | -1.4           | 2.8          | 1.5        | 3.0                         | 5.2                      |
|      | CPI-W      | 1.5       | 1.5                | 2.3     | .8      | -1.7           | 2.8          | 1.5        | 3.0                         | 5.4                      |
|      | CPI-E      | 1.8       | 1.5                | 2.5     | 1.5     | -1.1           | 2.7          | 1.3        | 1.5                         | 5.1                      |
| 1998 | CPI-U      | 1.6       | 2.3                | 2.3     | -.7     | -1.7           | 3.4          | 1.2        | 0.7                         | 8.8                      |
|      | CPI-W      | 1.6       | 2.1                | 2.2     | -.4     | -2.0           | 3.3          | .8         | 0.9                         | 11.3                     |
|      | CPI-E      | 1.9       | 2.3                | 2.2     | -.7     | -1.7           | 3.6          | 2.5        | -0.2                        | 6.6                      |
| 1999 | CPI-U      | 2.7       | 2.0                | 2.2     | -.5     | 5.4            | 3.7          | .8         | 1.6                         | 5.1                      |
|      | CPI-W      | 2.7       | 2.0                | 2.1     | -.6     | 5.7            | 3.6          | .4         | 1.6                         | 5.8                      |
|      | CPI-E      | 2.7       | 1.9                | 2.2     | -.8     | 5.7            | 3.8          | 1.3        | 0.7                         | 4.5                      |

other hand, is smaller for the CPI-E population.

Although, as noted above, the medical care component accounts for a significant amount of the difference in overall trends between the CPI-E and the other indexes in table 3, this is not true in every year. Table 2 shows, for example, that the medical care components increased approximately the same amount as the overall indexes during 1996, so medical care did not explain the slightly higher rate of growth of the CPI-E than of the CPI-U or CPI-W. During 1996 and 1997, the major contributors to the difference have included energy, shelter, and used car prices.

**Table 3. Percentage changes in the CPI-U, CPI-W, and CPI-E by major expenditure group, December 1994-December 1999.**

| Expenditure Group                  | CPI-U | CPI-W | CPI-E |
|------------------------------------|-------|-------|-------|
| All items .....                    | 12.4  | 12.2  | 13.2  |
| Food and beverages .....           | 12.7  | 12.7  | 12.7  |
| Food at home .....                 | 12.3  | 12.2  | 12.4  |
| Food away from home.....           | 13.4  | 13.5  | 13.4  |
| Alcoholic beverages .....          | 13.2  | 12.9  | 12.9  |
| Housing .....                      | 13.3  | 12.9  | 13.9  |
| Shelter .....                      | 16.6  | 16.2  | 16.4  |
| Rent .....                         | 15.8  | 15.8  | 15.1  |
| Owners' equivalent rent .....      | 16.1  | 16.0  | 15.9  |
| Apparel .....                      | -.3   | -.2   | -.5   |
| Transportation .....               | 8.2   | 8.0   | 9.4   |
| Medical care <sup>3</sup> .....    | 18.1  | 18.0  | 17.7  |
| Medical care commodities .....     | 15.6  | 14.6  | 17.0  |
| Medical care services .....        | 18.5  | 18.7  | 17.8  |
| Recreation .....                   | 9.7   | 8.6   | 11.1  |
| Education and communication ....   | 13.3  | 13.4  | 7.8   |
| College tuition and fees .....     | 26.0  | 27.5  | 26.0  |
| Other goods and services .....     | 29.9  | 33.6  | 26.1  |
| Tobacco and smoking products ..... | 66.3  | 66.4  | 65.9  |

<sup>3</sup>Health Insurance Indexes are not for publication by BLS; thus, no price change is presented.

### The CPI and its relationship to Social Security benefits

Adjustments to Social Security benefits are currently based on the percent change in the CPI-W, measured from the average of the third quarter of one year to the third quarter of the succeeding year.

While the population covered for this study includes persons 62 years of age and older, it is important to note that it differs in many ways from the population receiving Social Security benefits.

First, many Social Security beneficiaries are younger than 62 years of age and receive benefits, because they are sur-

viving spouses or minor children of covered workers or because of disability. The spending patterns of this younger group are excluded in the weights for the experimental index for older Americans. Second, a substantial number of persons 62 years of age and older do not receive Social Security benefits, especially those 62-64 years of age. Although these older consumers are included in the population covered by the experimental reweighted index, they would be excluded from an index specifically defined to reflect the experience of Social Security pensioners.

In short, an index designed specifically to measure price change for Social Security beneficiaries (i.e., one that excludes older people not receiving benefits but includes younger persons receiving survival and disability benefits) might well show price movements that differ significantly from those of the experimental index in this study.

### Conclusions

This report summarizes the change in the prices of three population groups: the CPI-U, the CPI-W, and the CPI-E, the experimental population of Americans older than 62 years of age, for the period December 1994 through December 1999. During this time period, the CPI-E increased at a slightly higher rate than either of the two official populations.

The CPI-E, reweighted to incorporate the spending patterns of older consumers, behaved more like the CPI-U than the CPI-W. This was expected, because the CPI-U includes the expenditures of all urban consumers, including those 62 years of age and over. The CPI-W, however, is limited to the spending patterns of wage-earner and clerical families and, therefore, specifically excludes the experience of families whose primary source of income is from retirement pensions.

The medical care component of the CPI has a substantially larger relative weight in the experimental population compared to the CPI-U or CPI-W. As a result, the medical care component tends to have a larger effect on the elderly population than it does on the other two indexes. Other differences also play an important role, however, such as the greater weight of homeownership in the CPI-E.

Finally, the experimental price index has limitations as an estimate of the inflation rate experienced by older Americans. Because of the various limitations inherent in the methodology, any conclusions drawn from these data should be made with caution.