# EXPLANATORY NOTE

The Employment Cost Index (ECI) is a measure of the change in the cost of labor, free from the influence of employment shifts among occupations and industries. The compensation series includes changes in wages and salaries and employer costs for employee benefits. The wage and salary series and the benefit cost series provide the change for the two components of compensation.

Wages and salaries are defined as the hourly straight-time wage rate or, for workers not paid on an hourly basis, straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and nonproduction bonuses such as lump-sum payments provided in lieu of wage increases. Production bonuses, incentive earnings, commission payments, and cost-of-living adjustments are included in straight-time wage and salary rates.

Benefits covered by the ECI are: Paid leave—vacations, holidays, sick leave, and other leave; supplemental pay—premium pay for work in addition to the regular work schedule (such as overtime, weekends, and holidays), shift differentials, and nonproduction bonuses (such as referral bonuses and lump-sum payments provided in lieu of wage increases); insurance benefits—life, health, short-term disability, and long-term disability; retirement and savings benefits—defined benefit and defined contribution plans; legally required benefits—Social Security, Medicare, Federal and State unemployment insurance, and workers' compensation; and other benefits—severance pay and supplemental unemployment plans.

The ECI provides data for the civilian economy, which includes the total private nonfarm economy excluding households and the public sector excluding the Federal government. The private industry series and the State and local government series provide data for the two sectors separately.

Data for this quarter were collected from a probability sample of approximately 43,000 occupational observations within about 9,800 sample establishments in private industry and approximately 3,500 occupations within about 800 sample establishments in State and local governments. Data are collected for the pay period including the 12$^{th}$ day of the survey months of March, June, September, and December.

The sampled establishments are classified by industry categories based on the 1987 Standard Industrial Classification (SIC), as defined by the U.S. Office of Management and Budget. Details on the sample design are included in the bulletin, <u>Employment Cost Indexes, 1975-99</u>, (Bulletin 2532). Within an establishment, specific job categories are selected and classified into about 500 occupational classifications according to the 1990 Census of Population. Individual occupations are combined into broader occupational groups. Fixed employment weights are used each quarter to calculate the most aggregate series—civilian, private, and State and local government. These fixed weights are also used to derive all of the industry and occupation series indexes. Since March 1995, 1990 employment counts, primarily from the Bureau's Occupational Employment Statistics survey, have been used. For more information on these topics, see the articles, "Introducing New Weights for the Employment Cost Index," in the June 1985 issue of the <u>Monthly Labor Review</u> and "Introducing 1990 Weights for the Employment Cost Index" in the June 1995 issue of <u>Compensation and Working Conditions</u>.

For the series based on bargaining status, region, and area size, employment data are not available. The employment weights are reallocated within these series each quarter based on the current ECI sample. The indexes for these series, consequently, are not strictly comparable to those for the aggregate, industry, and occupation series. A fuller explanation of the calculation of index numbers appears in an article, "Estimation Procedures for the Employment Cost Index," in the May 1982 issue of the <u>Monthly Labor Review</u>. Beginning with the March 1990 ECI release, indexes were rebased to June 1989=100. A description of the rebasing is included in the article "Employment Cost Index Rebased to June 1989," in the April 1990 issue of the <u>Monthly Labor Review</u>.

Beginning with the December 1990 ECI release, seasonally adjusted data are available for selected ECI series. Seasonal adjustment removes the effects of events that follow a more or less regular pattern each year. These adjustments make nonseasonal patterns easier to identify. For more information on the methodology used to seasonally adjust ECI series, see the bulletin, <u>Employment Cost Indexes, 1975-99</u>, (Bulletin 2532). The seasonal adjustment factors are recalculated once a year. The March release contains data reflecting the newly updated seasonal adjustment factors. The historical data for the last five years are then revised based on the newly estimated factors. The seasonal factors for 2004 and revised seasonally adjusted indexes for the past five years are available on the Internet site (http://www.bls.gov/ncs/ect/home.htm) or upon request.

The ECI sample is rotated over approximately five years, which makes the sample more representative of the economy and reduces respondent burden. The sample is replaced on a cross-area, cross-industry basis.

Because the ECI is a sample survey, it is subject to sampling errors. Sampling errors are differences that occur between the results computed from a sample of observations and those computed from all observations in the population. The estimates derived from different samples selected using the same sample design may differ from one other. A measure of the variation among these differing estimates is the standard error. It can be used to measure the precision with which an estimate from a particular sample approximates the expected result of all possible samples. The chances are about 68 out of 100 that an estimate from the survey differs from a complete population figure by less than the standard error. The chances are about 90 out of 100 that this difference would be less than 1.6 times the standard error. The statements of comparisons appearing in this publication are significant at a 1.6 standard error level or better, unless otherwise indicated. This means that for differences cited, the estimated difference is greater than 1.6 times the standard error of the difference.

Because standard errors vary from quarter to quarter, the ECI uses a five-year moving average of standard errors to evaluate published series. To assist users in ascertaining the reliability of series, the five-year moving average of standard errors for all estimates (excluding seasonally adjusted series) will be available on the Internet site (http://www.bls.gov/ncs/ect/home.htm) shortly after publication of the news release.

When determining data to be used in contract negotiations, it is important to note that differences by bargaining status may be due to factors other than union status, such as occupational and industry mix. For example, union occupations tend to be concentrated in blue-collar occupations within manufacturing industries. Thus, differences between blue-collar and white-collar pay or differences in manufacturing versus nonmanufacturing industries could explain such differences. An important consideration when choosing a series for escalation is the number of workers covered. Series with smaller numbers of workers may have larger sampling errors or be dominated by a smaller number of employers. For more information, see the web site: (http://www.bls.gov/ect/escalator.htm).

More detailed information on the ECI is available from several sources. These include an historical bulletin—Employment Cost Indexes, 1975-99, (Bulletin 2532), a chapter, “National Compensation Measures,” in the BLS Handbook of Methods (Bulletin 2490), and several articles published in the Monthly Labor Review and Compensation and Working Conditions. Orders for bulletins should be made to the Bureau of Labor Statistics, Publication Sales Center, Room 960, 230 South Dearborn Street, Chicago, IL 60604, (312) 353-1880. Reprints of the articles and other descriptive pieces are available upon request by calling (202) 691-6199 or sending e-mail to (ocltinfo@bls.gov).

Historical data series are available, beginning with some wage and salary series begun in 1975. In addition, constant-dollar ECI series derived from the Consumer Price Index for All Urban Consumers (CPI-U) are available. Supplemental data from the ECI, providing 12-month percent changes in employer costs for health insurance in private industry beginning with June 1982 are also available. This information is available at the Internet site (http://www.bls.gov/ect/home.htm) or upon request.

The costs per hour worked of compensation components, based on data from the ECI, were recently published in a separate news release titled "Employer Costs for Employee Compensation–June 2004." Beginning with the March 2004 estimates, industry estimates are based on the 2002 North American Industry Classification (NAICS) system and the occupational categories are classified according to the 2000 Standard Occupational (SOC) system. These systems replace the 1987 Standard Industrial Classification System (SIC) and the Occupational Classification System (OCS). Historical data and related articles are included in the bulletin, Employer Costs for Employee Compensation, 1986-99, (Bulletin 2526). Also available on the Internet site (http://www.bls.gov/ncs/ect/home.htm) or upon request is an annual historical summary from March 1986 through March 2002. Data on a quarterly basis beginning with June 2002 are also available. The cost levels are calculated with current employment weights, rather than the fixed 1990 weights used in computing the ECI. Therefore, year-to-year changes in the cost levels usually differ from those in the ECI.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service Number: 1-800-877-8339.