

# **Employment Cost Indices on the Economics Data Program Website**

## **Data Series Descriptions**



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# Employment Cost Indices Data Series Descriptions

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*This document was created to assist users of Employment Cost Index data from the Economics Data Program Website. It contains the following information:*

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## **General Information**

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### **Data Retrieval Location**

This data was retrieved from the Pacific States Marine Fisheries Commission's Economics Data Program at <http://www.psmfc.org/efin>.

### **Contact Information**

Please direct any questions, suggestions or other comments to:

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### **ECI Data Sources**

All Employment Cost Index data are from the US Department of Labor, Bureau of Labor Statistics. They are available at <http://146.142.4.24/cgi-bin/srgate> using the BLS Series ID provided in the description of the data series.

### **The Employment Cost Index**

The BLS Employment Cost Index Explanatory Note explains:

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.

The entire explanatory note is available at <http://www.bls.gov/news.release/eci.tn.htm>

### **Manufacturing Industry Category**

The Employment Cost Indices on this site contain data for the Manufacturing Industry Category, which is based upon SICs 20-39. This industry category was selected because it contained information on SICs 2077, 2091, 2092, 3556, 3731 and 3732.

Unfortunately, ECI data are not available for SICs 0912 and 0913.

### **Seasonal Adjustment**

These data are NOT seasonally adjusted. Seasonally adjusted data for some series may be obtained from BLS at <http://stats.bls.gov/ecthome.htm>.

# **Data Series Descriptions for Employment Cost Indices: Manufacturing Industry Category:**

**by compensation type**

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## **Total Compensation**

*BLS Series ID: ECU12402I*

Employment Cost Index (EC)  
Not Seasonally Adjusted (U)  
Total Compensation (1)  
Manufacturing (240)  
Private Industry (2)  
Index (I)

Base period: 1989, Q2 = 100.0

This is an index for total compensation which includes wages, salaries, and employer costs for employee benefits. Wages and salaries are defined in the Wages and Salaries data series below and benefits are defined in the Benefits data series below.

*EFIN Data Last Updated: Feb 8, 2002*

## **Wages and Salaries**

*BLS Series ID: ECU22402I*

Employment Cost Index (EC)  
Not Seasonally Adjusted (U)  
Wages and Salaries (2)  
Manufacturing (240)  
Private Industry (2)  
Index (I)

This is an index for **wages and salaries**. It is *NOT* a measure for benefits.

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.

- - *BLS Employment Cost Index Explanatory Note available at  
<http://www.bls.gov/news.release/eci.tn.htm>*

If you are interested in information about Total Compensation, please see the Total Compensation data series.. If you are interested in benefit information only, please see the Benefits data series.

*EFIN Data Last Updated: July 26, 2001*

*BLS Release Date: July 26, 2001*

## **Benefits**

*BLS Series ID: ECU32402I*

Employment Cost Index (EC)

Not Seasonally Adjusted (U)

Benefits (3)

Manufacturing (240)

Private Industry (2)

Index (I)

This is an index for **benefits**. It does *NOT* include wage and salary information.

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 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, Federal and State unemployment insurance, and workers' compensation; and other benefits--severance pay and supplemental unemployment plans.

- - *BLS Employment Cost Index Explanatory Note available at  
<http://www.bls.gov/news.release/eci.tn.htm>*

If you are interested in information about Total Compensation, please see the Total Compensation data series.. If you are interested in wages and salary information, please see the wages and salaries data series.

*EFIN Data Last Updated: Feb 8, 2002*

## Bureau of Labor Statistics Information

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### IMPORTANT NOTE

The BLS Overview of the Employment Cost Trends program and the BLS Explanatory Note have been added to this file for your convenience. These documents were downloaded directly from the BLS website at the URL's below on 28 July 2000.

You are encouraged to view the most recent version of these documents on the BLS website before including either document in your citations. The URL's are listed below.

If you do discover that either of these documents is not the most recent version, we would greatly appreciate if you would notify the Economics Data Program. The Economics Data Program can be reached via email at [efin@psmfc.org](mailto:efin@psmfc.org), via phone at (206) 526-4251, (206) 526-4335 or toll free at (888) 421-4251.

### BLS Resources on the Web

The BLS Overview contained in this section was obtained at <http://www.bls.gov/ectoverv.htm>.

The Explanatory Note was obtained at <http://www.bls.gov/news.release/eci.tn.htm>

Additionally, you may find the following websites useful when using the Employment Cost Index:

- BLS Employment Cost Trends Homepage is located at <http://www.bls.gov/ecthome.htm>
- Employment Cost Trends Scope and Methods is located at <http://www.bls.gov/ectscope.htm>
- BLS Answers to Frequently Asked Questions is located at <http://www.bls.gov/ectfaq.htm>
- BLS Contact Information is located at <http://www.bls.gov/ectconta.htm>
- The BLS Homepage is located at <http://stats.bls.gov/blshome.htm>
- The BLS form-based querying system is located at <http://stats.bls.gov/sahome.html>

# Employment Cost Trends



## Overview

The Employment Cost Trends program conducts two ongoing surveys—the Employment Cost Index (ECI) and Employer Costs for Employee Compensation (cost levels).

These surveys are currently being integrated with the Employee Benefits Survey and the Occupational Compensation Survey produced in the Office of Compensation and Working Conditions (OCWC) to form a single compensation survey program. This program initiative, the National Compensation Survey, was called the COMP2000 Survey in early testing. Therefore, the data shown may not continue to be published in their current format. To find out how the data you use may be changed, see [National Compensation Survey](#).

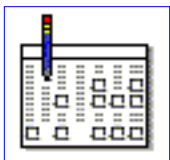
The ECI measures the change over time in the cost of labor. The cost of labor includes wages and salaries and employer costs for employee [benefits](#). The cost levels program produces average costs per hour worked for wages and salaries and specific benefits.

Currently, [news releases](#) for both surveys are available on the Internet. Also, historical data for ECI are available. (Historical data for the cost levels will be made available later or can be obtained by making a request through [e-mail](#).)

In addition, a one time quick response survey was conducted on [Expenditures for Health Care Plans by Employers and Employees, 1992](#).

Please see [Scope and Method](#) for details concerning Employment Cost Trends.

If you are familiar with our series, you can perform a search using [Selective Access](#).



[Employment Cost Trends Home Page](#)



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OCLT/SDAP  
Bureau of Labor Statistics

# Employment Cost Trends



## Employment Cost Index explanatory note

### EXPLANATORY NOTES

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 lump-sum payments provided in lieu of wage increases and referral bonuses); 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, Federal and State unemployment insurance, and workers' compensation; and other benefits--severance pay and supplemental unemployment plans.

The June 2000 ECI includes an expanded definition of nonproduction bonuses designed to improve representation of compensation packages offered to employees. In addition to the traditional types of nonproduction bonuses such as attendance bonuses and lump sum payments, the June ECI includes hiring and referral bonuses. A fact sheet has been prepared with additional information on this change and its effect on the ECI. See page 3 for more detailed information.

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 25,100 occupational observations within about 6,000 sample establishments in private industry and approximately 4,000 occupations within about 800 sample establishments in State and local governments. Data are collected for the pay period including the 12th 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. In 1996, some establishments in motor freight transportation and warehousing (SIC 42), transportation by air (SIC 45), and transportation services (SIC 47) were reclassified into air courier services (SIC 4513), which includes support establishments. While the establishments in question were engaged in the delivery of letters, parcels, and packages, they were operated by enterprises engaged in furnishing air delivery of individually addressed letters, parcels, and packages. The ECI sample introduced these reclassifications with the June 1998 reference period.

Within an establishment, specific job categories are selected to represent broader occupational groups. Since March 1995, the jobs are classified according to the 1990 Census, which differs little from the 1980 Census. From June 1986 through December 1994, the jobs were classified according to definitions used in the 1980 Census. Prior to June 1986, they were classified according to the 1970 Census. Differences between the two classification systems are slight, as indicated in the article "Introducing new weights for the Employment Cost Index," in the June 1985 issue of the Monthly Labor Review.

Fixed employment weights are used each quarter to calculate the most aggregate indexes--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. A description of the reweighting is included in an article "Introducing 1990 Weights for the Employment Cost Index," published in the June 1995 issue of Compensation and Working Conditions, (available upon request). From June 1986 through December 1994, employment counts from the 1980 Census were used as weights. Before June 1986, employment counts from the 1970 Census were used.

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 Monthly Labor Review.

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 Monthly Labor Review.

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. ECI series are seasonally adjusted using either direct or composite seasonally adjusted estimates. Industry and occupational series, such as construction and service occupations, are adjusted directly. More aggregate series, such as civilian or private industry workers, use composite estimates. The composite estimates could be obtained by aggregating either the industry or the occupational components, and the results may differ depending on which method is used. The aggregate seasonally adjusted ECI series are estimated by aggregating the component seasonally adjusted industry series. 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 new seasonal factors for 2000 and the historical listing containing revised seasonally adjusted indexes are available on the Internet site (<http://stats.bls.gov/ecthome.htm>) or upon request. The factors are also published in the summer issue of Compensation and Working Conditions.

The ECI sample is rotated over approximately five years; this makes it more representative and reduces respondent burden. The sample is replaced on a cross-area, cross-industry basis and is being integrated with the Bureau's National Compensation Survey (NCS). Integrated samples result in an increase in the number of private industry establishments and occupations in the survey. The NCS-ECI private industry sample will be completely integrated in 2001.

The costs per hour worked of compensation components, based on March data from the ECI, are published in a separate news release titled "Employer Costs for Employee Compensation - March 2000," and in an annual bulletin, Employer Costs for Employee Compensation, 1986-99, (Bulletin 2526). A description of the cost levels data (ECEC) is provided in the article "Analyzing Employers' Costs for Wages, Salaries, and Benefits" in the October 1987 issue of the Monthly Labor Review. This article, along with other ECEC research articles, also appears in the annual bulletin. 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.

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 each 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. Currently, in the higher level aggregate series, the standard errors for 3-month changes are generally 0.1 percent or less; for 12-month changes, standard errors are generally 0.25 percent or less. Currently, in the lower level series, standard errors are generally 0.3 percent or less for 3-month changes and 0.6 percent or less for 12-month changes. Series found to have a higher average standard error for the five years ending December 1996 are footnoted in the tables.

BLS is evaluating ECI publication standards as part of its overall quality improvement plan. The first phase of this evaluation, a review of the statistical reliability of the ECI series, is complete. To improve the quality of the ECI estimates, the sample size is being increased and other initiatives, such as revising collection procedures, are being explored. All series will continue to be published until further notice, although, as indicated above, standard errors for some series are large. The five-year moving average of standard errors for all estimates (excluding seasonally adjusted series) will be available on the Internet site (<http://stats.bls.gov/ecthome.htm>) shortly after publication of the news release.

When comparing data by bargaining status, it is important to note that differences may be due to factors other than bargaining 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.

More detailed information on the ECI is available in several sources. These include annual bulletins--Employment Cost Indexes and Levels, 1975-98, (Bulletin 2514), a chapter in the BLS Handbook of Methods (Bulletin 2490), "National Compensation Measures," and several articles published in the Monthly Labor Review and Compensation and Working Conditions. The annual bulletins are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, Illinois 60690, (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](mailto:ocltinfo@bls.gov)). Current and historical data are available at the web site: (<http://stats.bls.gov/ecthome.htm>).

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5886; Federal Relay Service Number: 1-800-877-8339.



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