

# Employment and Hours of All Persons for a Comprehensive Set of Industries



U.S. Department of Labor  
U.S. Bureau of Labor Statistics  
September 2009

Report 1019

The Bureau of Labor Statistics (BLS) expanded industry coverage of labor input measures in September 2009, publishing annual indexes of employment and hours of all persons for a comprehensive set of industries. (See tables 1 and 2.) The hours represent the labor input used in the production of goods and services in each industry. The expanded data set of all three- and four-digit industries, defined according to the 2007 North American Industry Classification System (NAICS), reflects the ongoing effort by BLS to increase industry coverage of its labor productivity (output per hour) and related measures. Included are some series that already are published as part of the industry productivity measures, as well as series for industries not previously covered by the industry productivity program. The series cover the period 1987–2008.

## Data sources and methods

Industry labor input measures are developed mainly from data collected by BLS. Data from the Current Employment Statistics (CES) survey, a monthly establishment survey conducted by BLS, are supplemented with data from the Current Population Survey (CPS), a monthly household survey conducted by the Bureau of the Census for BLS. Data on employment and average weekly hours are used to construct measures of total annual hours for different categories of workers. Employment and hours of all persons include those of paid employees, the self-employed (partners and proprietors), and unpaid family workers. Annual estimates for each category of worker are calculated separately and then directly summed for each industry.

The primary source of data on paid employees is the CES survey. The survey collects monthly data on total paid employment by industry, as well as data on employment and average weekly hours for production workers in goods-producing industries and for nonsupervisory workers in service-providing industries. Jobs rather than persons are counted, so multiple jobholders are counted more than once. Persons are considered employed if they receive pay for any part of the specified pay period. (See “Current Employment Statistics—CES (National),” on the Internet at <https://www.bls.gov/ces>) Total annual hours are estimated separately for each class of worker as the product of employment, average weekly hours, and the number of paid weeks per year. Data are not available at the detailed industry level to estimate a relationship between hours at work and hours paid; therefore, the industry hours series developed from the CES survey represent hours paid, not hours worked.

Although the survey has begun collecting information on the paid hours of all employees, it historically has provided time se-

ries of average weekly hours for production and nonsupervisory workers only. The industry productivity program uses data from the CPS, together with the CES data, to derive average weekly hours for nonproduction and supervisory workers back to 1987. (See “Construction of Average Weekly Hours for Supervisory and Nonproduction Wage and Salary Workers in Detailed Industries,” on the Internet at <https://www.bls.gov/lpc/iprswawhtechnote.pdf>

Because CES data cover only wage and salary employees, these data are supplemented with data from the CPS. (See “Labor Force Statistics from the Current Population Survey,” on the Internet at <https://www.bls.gov/cps>) CPS data are used to estimate the number and hours of the self-employed (partners and proprietors) and unpaid family workers. Historically, the hours of self-employed and unpaid family workers have been included in the industry productivity program’s labor input measures for the service-providing industries, but not in the measures for manufacturing and mining industries. In the current data set, self-employed and unpaid family workers are included in the measures for all industries. Although self-employed and unpaid family workers represent only a small portion of total employment in most manufacturing industries, the series published here may differ from the employment and hours series underlying the currently published industry productivity measures for some industries.

The CPS counts persons, not jobs, but separate information on industry and class of worker is available for both primary and secondary jobs. The data for primary and secondary jobs are processed separately in order to accurately assign the employment and hours in secondary jobs to the proper industry and class of worker. CPS data are available for many three- and four-digit NAICS industries. Occasionally, Census Bureau nonemployer or small-firm data are used together with CPS data to derive estimates for detailed industries.

Although the labor input measures for most industries reflect the data sources and methods discussed in the preceding paragraphs, measures for some industries were constructed from alternative data sources. Estimates of employment and hours for industries in the farm sector are based on data from the U.S. Department of Agriculture, whereas measures for industries in the nonfarm agriculture sector are based primarily on data from the BLS Quarterly Census of Employment and Wages (QCEW) and the CPS. Estimates of employment for the air transportation industry are based on data from the U.S. Department of Transportation, and hours data for the postal service industry are from the U.S. Postal Service. Estimates of paid employees in private households are from the QCEW, while employment and hours measures for Federal, State, and local gov-

ernment are based primarily on data from the CPS.

Except for manufacturing and mining industries, for which the new series incorporate employment and hours of self-employed and unpaid family workers for the first time, the expanded data set reflects the data and methods underlying the labor input series used for the industry productivity and cost measures. The new data set will be used in all forthcoming updates of the industry productivity and cost measures.

Indexes of employment and hours of all persons by industry can be accessed electronically by visiting the Labor Productivity and Costs Web site: <https://www.bls.gov/lpc> Levels of annual employment and hours, as well as industry nominal values of production and the implicit price deflators for output, also are available upon request by calling the Division of Industry Productivity Studies (202-691-5618) or by sending a request by e-mail to [dipsweb@bls.gov](mailto:dipsweb@bls.gov).