

# **NEWS RELEASE**



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## OCCUPATIONAL EMPLOYMENT AND WAGES IN ERIE – MAY 2011

Workers in the Erie Metropolitan Statistical Area had an average (mean) hourly wage of \$18.21 in May 2011, measurably below the nationwide average of \$21.74, according to the U.S. Bureau of Labor Statistics. Sheila Watkins, the Bureau's regional commissioner, noted that, after testing for statistical significance, wages in the local area were significantly lower than their respective national averages in 18 of the 22 major occupational groups, including architecture and engineering; management; arts, design, entertainment, sports, and media; and business and financial operations. (See table A and box note at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Erie Metropolitan Statistical Area, and measures of statistical significance, May 2011

|  | Percent of tot   | Percent of total employment |                  | Mean hourly wage |                                    |  |  |
|--|------------------|-----------------------------|------------------|------------------|------------------------------------|--|--|
| Major occupational group                       | United<br>States | Erie                        | United<br>States | Erie             | Percent<br>difference <sup>1</sup> |  |  |
| Total, all occupations                         | 100.0            | 100.0                       | \$21.74          | \$18.21 *        | -16                                |  |  |
| Management                                     | 4.8              | 3.1 *                       | 51.64            | 45.41 *          | -12                                |  |  |
| Business and financial operations              | 4.8              | 3.4 *                       | 33.05            | 28.71 *          | -13                                |  |  |
| Computer and mathematical                      | 2.7              | 1.1 *                       | 37.85            | 30.65 *          | -19                                |  |  |
| Architecture and engineering                   | 1.8              | 1.6                         | 37.08            | 29.36 *          | -21                                |  |  |
| Life, physical, and social science             | 0.8              | 0.3 *                       | 32.44            | 28.18 *          | -13                                |  |  |
| Community and social service                   | 1.5              | 2.2 *                       | 21.07            | 17.73 *          | -16                                |  |  |
| Legal  | 0.8              | 0.4 *                       | 47.30            | 41.65            | -12                                |  |  |
| Education, training, and library               | 6.6              | 6.8                         | 24.46            | 24.90            | 2                                  |  |  |
| Arts, design, entertainment, sports, and media | 1.3              | 1.3                         | 25.89            | 19.81 *          | -23                                |  |  |
| Healthcare practitioners and technical         | 5.9              | 7.0                         | 34.97            | 31.69 *          | -9                                 |  |  |
| Healthcare support                             | 3.1              | 4.3 *                       | 13.16            | 12.07 *          | -8                                 |  |  |
| Protective service                             | 2.5              | 1.8 *                       | 20.54            | 18.46            | -10                                |  |  |
| Food preparation and serving related           | 8.7              | 9.8 *                       | 10.30            | 9.74 *           | -5                                 |  |  |
| Building and grounds cleaning and maintenance  | 3.3              | 3.2                         | 12.29            | 10.62 *          | -14                                |  |  |
| Personal care and service                      | 2.8              | 4.1 *                       | 11.84            | 10.00 *          | -16                                |  |  |
| Sales and related                              | 10.6             | 10.6                        | 18.04            | 15.05 *          | -17                                |  |  |
| Office and administrative support              | 16.7             | 15.4 *                      | 16.40            | 14.99 *          | -9                                 |  |  |
| Farming, fishing, and forestry                 | 0.3              | 0.0 *                       | 11.68            | 17.89 *          | 53                                 |  |  |
| Construction and extraction                    | 3.9              | 2.6 *                       | 21.46            | 19.57 *          | -9                                 |  |  |
| Installation, maintenance, and repair          | 3.9              | 3.7                         | 20.86            | 18.12 *          | -13                                |  |  |
| Production                                     | 6.5              | 11.7 *                      | 16.45            | 15.67 *          | -5                                 |  |  |
| Transportation and material moving             | 6.7              | 5.7 *                       | 15.96            | 13.74 *          | -14                                |  |  |

<sup>\*</sup> The percent share of employment or mean hourly wage for this area is significantly different from the national average of all areas at the 90-percent confidence level.

<sup>&</sup>lt;sup>1</sup> A positive percent difference measures how much the mean wage in Erie is above the national mean wage, while a negative percent difference reflects a lower wage.

When compared to the nationwide distribution, Erie employment was more highly concentrated in 5 of the 22 occupational groups including production and personal care and service. Conversely, 10 groups had employment shares significantly below their national representation; these groups included management, business and financial operations, and construction and extraction.

One occupational group—production—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Erie had 14,930 jobs in production, accounting for 11.7 percent of local area employment, significantly above the 6.5-percent share nationally. The average hourly wage for this occupational group locally was \$15.67, which was significantly below the national average of \$16.45.

With employment of 1,500, team assemblers was the largest occupation within the production group, followed by welders, cutters, solderers, and brazers (1,140) and machinists (990). Among the higher-paying jobs were first-line supervisors of production and operating workers (\$25.63) and tool and die makers (\$22.81). At the lower end of the wage scale were laundry and dry-cleaning workers and team assemblers, with mean hourly wages of \$11.16 and \$12.01, respectively. (Detailed occupational data for production are presented in table 1; for a complete listing of detailed occupations available go to <a href="https://www.bls.gov/oes/current/oes\_21500.htm">www.bls.gov/oes/current/oes\_21500.htm</a>.)

Location quotients allow us to explore the occupational make-up of a metropolitan area by comparing the composition of jobs in an area relative to the national average. (See table 1.) For example, a location quotient of 2.0 indicates that an occupation accounts for twice the share of employment in the area as it does nationally. In the Erie area, above-average concentrations of employment were found in many of the occupations within the production group. For instance, metal and plastic molding, coremaking, and casting machine setters, operators, and tenders were employed at nearly five times the national rate in Erie, and machinists at over two-and-a-half times the U.S. average. On the other hand, printing press operators had a location quotient of 1.1 in Erie, indicating that this particular occupation's local and national employment shares were similar.

These statistics are from the Occupational Employment Statistics (OES) survey, a federal-state cooperative program between BLS and State Workforce Agencies, in this case, the Pennsylvania Department of Labor and Industry. The OES survey provides estimates of employment and hourly and annual wages for wage and salary workers in 22 major occupational groups and about 800 detailed occupations for the nation, states, metropolitan statistical areas, metropolitan divisions, and nonmetropolitan areas.

OES wage and employment data for the 22 major occupational groups in the Erie Metropolitan Statistical Area were compared to their respective national averages based on statistical significance testing. Only those occupations with wages or employment shares above or below the national wage or share after testing for significance at the 90-percent confidence level meet the criteria.

NOTE: A value that is statistically different from another does not necessarily mean that the difference has economic or practical significance. Statistical significance is concerned with the ability to make confident statements about a universe based on a sample. It is entirely possible that a large difference between two values is not significantly different statistically, while a small difference is, since both the size and heterogeneity of the sample affect the relative error of the data being tested.

#### **Technical Note**

The Occupational Employment Statistics (OES) survey is a semiannual mail survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. Guam, Puerto Rico, and the Virgin Islands are also surveyed, but their data are not included in the national estimates. OES estimates are constructed from a sample of about 1.2 million establishments. Forms are mailed to approximately 200,000 establishments in May and November of each year for a 3-year period. The nationwide response rate for the May 2011 survey was 77.3 percent based on establishments and 73.3 percent based on employment. May 2011 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2011, November 2010, May 2010, November 2009, May 2009, and November 2008. The sample in the Erie Metropolitan Statistical Area included 1,693 establishments with a response rate of 77 percent. For more information about OES concepts and methodology, go to <a href="https://www.bls.gov/news.release/ocwage.tn.htm">www.bls.gov/news.release/ocwage.tn.htm</a>.

The May 2011 OES estimates are based in part on data collected using the 2010 Standard Occupational Classification (SOC) system. Nearly all the occupations in this release are 2010 SOC occupations; however, some are not. The May 2012 OES data will reflect the full set of detailed occupations in the 2010 SOC. For a list of all occupations, including 2010 SOC occupations, and how data collected on two structures were combined, see the OES Frequently Asked Questions online at <a href="https://www.bls.gov/oes/oes-ques.htm#Ques41">www.bls.gov/oes/oes-ques.htm#Ques41</a>.

#### **Area definitions**

The substate area data published in this release reflect the standards and definitions established by the U.S. Office of Management and Budget.

The Erie, Pa. Metropolitan Statistical Area (MSA) includes Erie County in Pennsylvania.

### **Additional information**

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone number: 1-800-877-8339.

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Erie Metropolitan Statistical Area, May 2011

|   | Employment <sup>2</sup> |                                | Mean wage |                     |
|---|-------------------------|--------------------------------|-----------|---------------------|
| Occupation <sup>1</sup>   | Level                   | Location quotient <sup>3</sup> | Hourly    | Annual <sup>4</sup> |
| Production occupations  | 14,930                  | 1.8                            | \$15.67   | \$32,590            |
| First-line supervisors of production and operating workers              | 850                     | 1.5                            | 25.63     | 53,320              |
| Electrical and electronic equipment assemblers                          | 280                     | 1.5                            | 12.59     | 26,200              |
| Electromechanical equipment assemblers                                  | [5]                     | [5]                            | 14.29     | 29,720              |
| Structural metal fabricators and fitters                                | 40                      | 0.6                            | 17.55     | 36,490              |
| Team assemblers   | 1,500                   | 1.6                            | 12.01     | 24,990              |
| Assemblers and fabricators, all other                                   | [5]                     | [5]                            | 8.50      | 17,680              |
| Bakers  | 190                     | 1.3                            | 12.07     | 25,100              |
| Butchers and meat cutters   | 80                      | 0.6                            | 14.28     | 29,710              |
| Food batchmakers  | 130                     | 1.3                            | 14.19     | 29,510              |
| Computer-controlled machine tool operators, metal and plastic           | 440                     | 3.4                            | 15.63     | 32,500              |
| Computer numerically controlled machine tool programmers, metal         |                         |                                |           |                     |
| and plastic   | 120                     | 6.1                            | 17.69     | 36,780              |
| Extruding and drawing machine setters, operators, and tenders, metal    |                         |                                |           |                     |
| and plastic   | 350                     | 4.7                            | 16.00     | 33,270              |
| Forging machine setters, operators, and tenders, metal and plastic      | 70                      | 3.3                            | 16.94     | 35,230              |
| Cutting, punching, and press machine setters, operators, and tenders,   |                         |                                |           |                     |
| metal and plastic   | 470                     | 2.6                            | 13.72     | 28,530              |
| Drilling and boring machine tool setters, operators, and tenders, metal |                         |                                |           |                     |
| and plastic   | 50                      | 2.4                            | 14.54     | 30,240              |
| Grinding, lapping, polishing, and buffing machine tool setters,         |                         |                                |           |                     |
| operators, and tenders, metal and plastic                               | 220                     | 3.1                            | 14.61     | 30,380              |
| Lathe and turning machine tool setters, operators, and tenders, metal   |                         |                                |           |                     |
| and plastic   | 160                     | 3.9                            | 15.29     | 31,800              |
| Machinists  | 990                     | 2.7                            | 16.24     | 33,770              |
| Metal-refining furnace operators and tenders                            | 70                      | 3.8                            | 15.38     | 31,990              |
| Foundry mold and coremakers   | [5]                     | [5]                            | 12.40     | 25,790              |
| Molding, coremaking, and casting machine setters, operators, and        |                         |                                |           |                     |
| tenders, metal and plastic  | 570                     | 4.8                            | 14.55     | 30,260              |
| Multiple machine tool setters, operators, and tenders, metal            |                         |                                |           |                     |
| and plastic   | 390                     | 5.0                            | 16.40     | 34,110              |
| Tool and die makers   | 230                     | 3.3                            | 22.81     | 47,450              |
| Welders, cutters, solderers, and brazers                                | 1,140                   | 3.6                            | 15.80     | 32,860              |
| Welding, soldering, and brazing machine setters, operators,             |                         |                                |           |                     |
| and tenders   | 120                     | 2.9                            | 14.74     | 30,660              |
| Plating and coating machine setters, operators, and tenders, metal      |                         |                                |           |                     |
| and plastic   | 230                     | 7.3                            | 14.40     | 29,940              |
| Prepress technicians and workers  | 50                      | 1.2                            | 16.86     | 35,070              |
| Printing press operators  | 190                     | 1.1                            | 14.16     | 29,450              |
| Print binding and finishing workers                                     | [5]                     | [5]                            | 15.59     | 32,420              |
| Laundry and dry-cleaning workers  | 230                     | 1.2                            | 11.16     | 23,200              |

See footnotes at end of table.

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Erie Metropolitan Statistical Area, May 2011—continued

|  |       | Employment <sup>2</sup>        |         | Mean wage           |  |
|--|-------|--------------------------------|---------|---------------------|--|
| Occupation <sup>1</sup>  | Level | Location quotient <sup>3</sup> | Hourly  | Annual <sup>4</sup> |  |
| Sewing machine operators   | [5]   | [5]                            | \$12.88 | \$26,800            |  |
| Cabinetmakers and bench carpenters   | 40    | 0.5                            | 21.13   | 43,950              |  |
| Sawing machine setters, operators, and tenders, wood                         | 50    | 1.4                            | 13.18   | 27,420              |  |
| Woodworking machine setters, operators, and tenders, except sawing           | 80    | 1.4                            | 12.49   | 25,990              |  |
| Water and wastewater treatment plant and system operators                    | 70    | 0.7                            | 19.60   | 40,760              |  |
| Gas plant operators  | 100   | 8.5                            | 27.97   | 58,170              |  |
| Cas plant operators  | 100   | 0.5                            | 27.57   | 30,170              |  |
| Separating, filtering, clarifying, precipitating, and still machine setters, |       |                                |         |                     |  |
| operators, and tenders   | 70    | 1.8                            | 21.24   | 44,170              |  |
| Grinding and polishing workers, hand   | 70    | 2.6                            | 11.42   | 23,760              |  |
| Mixing and blending machine setters, operators, and tenders                  | 50    | 0.5                            | 18.90   | 39,310              |  |
| Inspectors, testers, sorters, samplers, and weighers                         | 880   | 2.0                            | 14.61   | 30,400              |  |
|  |       |                                |         |                     |  |
| Dental laboratory technicians  | 80    | 2.0                            | 19.84   | 41,280              |  |
| Ophthalmic laboratory technicians  | 40    | 1.4                            | 12.00   | 24,950              |  |
| Packaging and filling machine operators and tenders                          | 430   | 1.2                            | 13.39   | 27,840              |  |
| Coating, painting, and spraying machine setters, operators,                  |       |                                |         |                     |  |
| and tenders  | 80    | 1.1                            | 15.69   | 32,630              |  |
| Painting, coating, and decorating workers                                    | 50    | 2.4                            | 10.56   | 21,960              |  |
| Helpersproduction workers  | 700   | 1.7                            | 13.40   | 27,860              |  |
| Production workers, all other*   | 30    | 0.1                            | 23.57   | 49,020              |  |

<sup>\*</sup>This occupation has the same title, but not necessarily the same content, as the 2010 SOC occupation.

<sup>&</sup>lt;sup>1</sup> For a complete listing of all detailed occupations in the Erie MSA, see www.bls.gov/oes/current/oes\_21500.htm.

<sup>&</sup>lt;sup>2</sup> Estimates for detailed occupations do not sum to the totals because the totals include occupations not shown separately. Estimates do not include self-employed workers.

<sup>&</sup>lt;sup>3</sup> The location quotient is the ratio of the area concentration of occupational employment to the national average concentration. A location quotient greater than one indicates the occupation has a higher share of employment than average, and a location quotient less than one indicates the occupation is less prevalent in the area than average.

<sup>&</sup>lt;sup>4</sup> Annual wages have been calculated by multiplying the hourly mean wage by a 'year-round, full-time' hours figure of 2,080 hours; for those occupations where there is not an hourly mean wage published, the annual wage has been directly calculated from the reported survey data.

<sup>&</sup>lt;sup>5</sup> Estimates not available.