Occupational Employment and Wages in Pittsburgh – May 2017

Workers in the Pittsburgh Metropolitan Statistical Area had an average (mean) hourly wage of $23.36 in May 2017, 4 percent below the nationwide average of $24.34, according to the U.S. Bureau of Labor Statistics. Sheila Watkins, the Bureau’s regional commissioner, noted that after testing for statistical significance, 14 of the 22 major occupational groups had average wages in the local area that were significantly lower than their respective national averages, including arts, design, entertainment, sports, and media; life, physical, and social science; and healthcare practitioners and technical. Three other occupational groups had average wages that were measurably higher than their respective national averages: education, training, and library; production; and construction and extraction.

When compared to the nationwide distribution, local employment shares were significantly higher in 6 of the 22 occupational groups, including healthcare practitioners and technical, office and administrative support, and personal care and service. Conversely, eight occupational groups had employment shares significantly below their national representation; these groups included production; management; and education, training, and library. (See table A and box note at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Pittsburgh Metropolitan Statistical Area, and measures of statistical significance, May 2017

<table>
<thead>
<tr>
<th>Major occupational group</th>
<th>Percent of total employment</th>
<th>Mean hourly wage</th>
<th>Percent difference (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United States</td>
<td>Pittsburgh</td>
<td>United States</td>
</tr>
<tr>
<td>Total, all occupations</td>
<td>100</td>
<td>100</td>
<td>$24.34</td>
</tr>
<tr>
<td>Management</td>
<td>5.1</td>
<td>4.4</td>
<td>* 57.65</td>
</tr>
<tr>
<td>Business and financial operations</td>
<td>5.2</td>
<td>5.1</td>
<td>* 36.70</td>
</tr>
<tr>
<td>Computer and mathematical</td>
<td>3.0</td>
<td>3.4</td>
<td>43.18</td>
</tr>
<tr>
<td>Architecture and engineering</td>
<td>1.8</td>
<td>2.2</td>
<td>* 41.44</td>
</tr>
<tr>
<td>Life, physical, and social science</td>
<td>0.8</td>
<td>0.7</td>
<td>35.76</td>
</tr>
<tr>
<td>Community and social service</td>
<td>1.5</td>
<td>1.8</td>
<td>* 23.10</td>
</tr>
<tr>
<td>Legal</td>
<td>0.8</td>
<td>0.8</td>
<td>51.62</td>
</tr>
<tr>
<td>Education, training, and library</td>
<td>6.1</td>
<td>5.4</td>
<td>* 26.67</td>
</tr>
<tr>
<td>Arts, design, entertainment, sports, and media</td>
<td>1.4</td>
<td>1.1</td>
<td>* 28.34</td>
</tr>
<tr>
<td>Healthcare practitioners and technical</td>
<td>6.0</td>
<td>7.5</td>
<td>* 38.83</td>
</tr>
<tr>
<td>Healthcare support</td>
<td>2.9</td>
<td>3.0</td>
<td>15.05</td>
</tr>
<tr>
<td>Protective service</td>
<td>2.4</td>
<td>2.2</td>
<td>22.69</td>
</tr>
<tr>
<td>Food preparation and serving related</td>
<td>9.3</td>
<td>9.2</td>
<td>11.88</td>
</tr>
<tr>
<td>Building and grounds cleaning and maintenance</td>
<td>3.1</td>
<td>2.7</td>
<td>* 13.91</td>
</tr>
<tr>
<td>Personal care and service</td>
<td>3.6</td>
<td>4.2</td>
<td>* 13.11</td>
</tr>
<tr>
<td>Sales and related</td>
<td>10.2</td>
<td>9.8</td>
<td>* 19.56</td>
</tr>
<tr>
<td>Office and administrative support</td>
<td>15.4</td>
<td>16.5</td>
<td>* 18.24</td>
</tr>
</tbody>
</table>

Note: See footnotes at end of table.
Footnotes:
(1) A positive percent difference measures how much the mean wage in the Pittsburgh Metropolitan Statistical Area is above the national mean wage, while a negative difference reflects a lower wage.
* 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.

One occupational group—construction and extraction—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Pittsburgh had 50,140 jobs in construction and extraction occupations, accounting for 4.4 percent of local area employment, significantly higher than the 4.0-percent share nationally. The average hourly wage for this occupational group locally was $24.97, which was significantly above the national average of $24.01.

Some of the larger detailed occupations within the construction and extraction group included construction laborers (9,670), carpenters (6,060), and operating engineers and other construction equipment operators (4,900). Among the higher-paying jobs in this group were boilermakers ($41.74) and first-line supervisors of construction trades and extraction workers ($34.92). At the lower end of the wage scale were oil and gas roustabouts and electrician helpers, with mean hourly wages of $18.77 and $14.45, respectively. (Detailed occupational data for construction and extraction are presented in table 1; for a complete listing of detailed occupations available go to www.bls.gov/oes/current/oes_38300.htm.)

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 Pittsburgh area, above-average concentrations of employment were found in several of the occupations within the construction and extraction group. For instance, carpet installers were employed at 2.2 times the national rate in Pittsburgh, and extraction worker helpers were employed at 3.1 times the U.S. average. On the other hand, plumbers, pipefitters, and steamfitters had a location quotient of 1.1 in Pittsburgh, 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.
Note on Occupational Employment Statistics Data

With the release of the May 2017 estimates, the OES program has replaced 21 detailed occupations found in the 2010 Standard Occupational Classification (SOC) with 10 new aggregations of those occupations. In addition, selected 4- and 5-digit North American Industry Classification System (NAICS) industries previously published by OES will no longer be published separately. Some of the 4-digit NAICS industries that are no longer being published separately will instead be published as OES-specific industry aggregations. More information about the new occupational and industry aggregations is available at www.bls.gov/oes/changes_2017.htm.

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 survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OES data available from BLS include cross-industry occupational employment and wage estimates for the nation; over 650 areas, including states and the District of Columbia, metropolitan statistical areas (MSAs), metropolitan divisions, nonmetropolitan areas, and territories; national industry-specific estimates at the NAICS sector, 3-, 4-, and selected 5- and 6-digit industry levels, and national estimates by ownership across all industries and for schools and hospitals. OES data are available at www.bls.gov/oes/tables.htm.

OES estimates are constructed from a sample of about 1.2 million establishments. Each year, two semiannual panels of approximately 200,000 sampled establishments are contacted, one panel in May and the other in November. Responses are obtained by mail, Internet or other electronic means, email, telephone, or personal visit. The May 2017 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2017, November 2016, May 2016, November 2015, May 2015, and November 2014. The overall national response rate for the six panels, based on the 50 states and the District of Columbia, is 72 percent based on establishments and 68 percent based on weighted sampled employment. The unweighted sample employment of 82 million across all six semiannual panels represents approximately 58 percent of total national employment. The sample in the Pittsburgh Metropolitan Statistical Area included 5,899 establishments with a response rate of 71 percent. For more information about OES concepts and methodology, go to www.bls.gov/oes/current/oes_tec.htm.


Metropolitan 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.

**Additional information**


Information in this release will be made available to sensory impaired individuals upon request – Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.
Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Pittsburgh Metropolitan Statistical Area, May 2017

<table>
<thead>
<tr>
<th>Occupation (1)</th>
<th>Employment (2)</th>
<th>Mean wage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>Location quotient (3)</td>
</tr>
<tr>
<td>Construction and extraction occupations .............</td>
<td>50,140</td>
<td>1.1</td>
</tr>
<tr>
<td>First-line supervisors of construction trades and</td>
<td>4,850</td>
<td>1.1</td>
</tr>
<tr>
<td>extraction workers .....................................</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boilermakers ...........................................</td>
<td>310</td>
<td>2.6</td>
</tr>
<tr>
<td>Brickmasons and blockmasons ...........................</td>
<td>820</td>
<td>1.6</td>
</tr>
<tr>
<td>Carpenters ..............................................</td>
<td>6,060</td>
<td>1.1</td>
</tr>
<tr>
<td>Carpet installers ......................................</td>
<td>460</td>
<td>2.2</td>
</tr>
<tr>
<td>Floor layers, except carpet, wood, and hard tiles ...</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Tile and marble setters ................................</td>
<td>190</td>
<td>0.6</td>
</tr>
<tr>
<td>Cement masons and concrete finishers ...............</td>
<td>1,340</td>
<td>0.9</td>
</tr>
<tr>
<td>Construction laborers ..................................</td>
<td>9,670</td>
<td>1.3</td>
</tr>
<tr>
<td>Paving, surfacing, and tamping equipment operators</td>
<td>340</td>
<td>0.9</td>
</tr>
<tr>
<td>Pile-driver operators ..................................</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Operating engineers and other construction equipment operators</td>
<td>4,900</td>
<td>1.7</td>
</tr>
<tr>
<td>Drywall and ceiling tile installers ..................</td>
<td>280</td>
<td>0.4</td>
</tr>
<tr>
<td>Tapers ..................................................</td>
<td>70</td>
<td>0.5</td>
</tr>
<tr>
<td>Electricians ............................................</td>
<td>3,950</td>
<td>0.8</td>
</tr>
<tr>
<td>Glaziers ................................................</td>
<td>420</td>
<td>1.1</td>
</tr>
<tr>
<td>Insulation workers, floor, ceiling, and wall ........</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Insulation workers, mechanical ......................</td>
<td>30</td>
<td>0.2</td>
</tr>
<tr>
<td>Painters, construction and maintenance .............</td>
<td>1,270</td>
<td>0.7</td>
</tr>
<tr>
<td>Paperhangers ...........................................</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Pipelayers .............................................</td>
<td>200</td>
<td>0.6</td>
</tr>
<tr>
<td>Plumbers, pipefitters, and steamfitters .............</td>
<td>3,770</td>
<td>1.1</td>
</tr>
<tr>
<td>Plasterers and stucco masons ........................</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Roofers ...............................................</td>
<td>780</td>
<td>0.8</td>
</tr>
<tr>
<td>Sheet metal workers ...................................</td>
<td>730</td>
<td>0.7</td>
</tr>
<tr>
<td>Structural iron and steel workers ...................</td>
<td>440</td>
<td>0.7</td>
</tr>
<tr>
<td>Helpers--brickmasons, blockmasons, stonemasons, and tile and marble setters</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Helpers--carpenters ..................................</td>
<td>140</td>
<td>0.5</td>
</tr>
<tr>
<td>Helpers--electricians ................................</td>
<td>330</td>
<td>0.6</td>
</tr>
<tr>
<td>Helpers--pipelayers, plumbers, pipefitters, and steamfitters</td>
<td>370</td>
<td>0.9</td>
</tr>
<tr>
<td>Helpers--roofers ......................................</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Helpers, construction trades, all other .............</td>
<td>140</td>
<td>0.8</td>
</tr>
<tr>
<td>Construction and building inspectors ...............</td>
<td>1,460</td>
<td>1.9</td>
</tr>
<tr>
<td>Hazardous materials removal workers ..................</td>
<td>400</td>
<td>1.2</td>
</tr>
<tr>
<td>Highway maintenance workers .........................</td>
<td>2,060</td>
<td>1.8</td>
</tr>
<tr>
<td>Septic tank servicers and sewer pipe cleaners ......</td>
<td>300</td>
<td>1.4</td>
</tr>
<tr>
<td>Miscellaneous construction and related workers ......</td>
<td>(5)</td>
<td>(5)</td>
</tr>
<tr>
<td>Rotary drill operators, oil and gas .................</td>
<td>310</td>
<td>2.5</td>
</tr>
<tr>
<td>Service unit operators, oil, gas, and mining .......</td>
<td>790</td>
<td>2.5</td>
</tr>
<tr>
<td>Earth drillers, except oil and gas .................</td>
<td>150</td>
<td>1.1</td>
</tr>
<tr>
<td>Roustabouts, oil and gas ................................</td>
<td>660</td>
<td>1.7</td>
</tr>
<tr>
<td>Helpers--extraction workers ..........................</td>
<td>380</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Footnotes:
(1) For a complete listing of all detailed occupations in the Pittsburgh Metropolitan Statistical Area, see www.bls.gov/oes/current/oes_38300.htm.
(2) 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.
(3) 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.

Note: See footnotes at end of table.
(4) 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. (5) Estimates not released.