



## NEWS RELEASE



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### Occupational Employment and Wages in Virginia Beach-Norfolk-Newport News—May 2013

Workers in the Virginia Beach- Norfolk-Newport News Metropolitan Statistical Area had an average (mean) hourly wage of \$20.99 in May 2013, 6 percent below the nationwide average of \$22.33, 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 15 of the 22 major occupational groups, including arts, design, entertainment, sports, and media; computer and mathematical; and sales and related. Only two groups had hourly wages that were measurably higher than their respective national averages—production and food preparation and serving related. (See [table A](#) and box note at end of release.)

**Table A. Occupational employment and wages by major occupational group, United States and the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area, and measures of statistical significance, May 2013**

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Virginia Beach-Norfolk-Newport News	United States	Virginia Beach-Norfolk-Newport News	Percent difference <sup>(1)</sup>
Total, all occupations .....	100.0	100	\$22.33	\$20.99*	-6
Management .....	4.9	3.7*	53.15	52.19*	-2
Business and financial operations.....	5.0	5.6*	34.14	32.97*	-3
Computer and mathematical .....	2.8	3.0	39.43	36.57*	-7
Architecture and engineering .....	1.8	3.0*	38.51	36.63*	-5
Life, physical, and social science .....	0.9	0.7*	33.37	31.78*	-5
Community and social service .....	1.4	1.5	21.50	21.38	-1
Legal .....	0.8	0.6*	47.89	40.75*	-15
Education, training, and library.....	6.3	6.4	24.76	23.40	-5
Arts, design, entertainment, sports, and media.....	1.3	1.1*	26.72	21.91*	-18
Healthcare practitioners and technical .....	5.8	5.8	35.93	32.73*	-9
Healthcare support.....	3.0	2.8	13.61	12.70*	-7
Protective service.....	2.5	2.7*	20.92	18.68*	-11
Food preparation and serving related .....	9.0	9.8*	10.38	10.83*	4
Building and grounds cleaning and maintenance .....	3.2	3.5*	12.51	11.07*	-12

Note: See footnotes at end of table.

**Table A. Occupational employment and wages by major occupational group, United States and the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area, and measures of statistical significance, May 2013 - Continued**

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Virginia Beach-Norfolk-Newport News	United States	Virginia Beach-Norfolk-Newport News	Percent difference <sup>(1)</sup>
Personal care and service.....	3.0	3.2	11.88	11.22*	-6
Sales and related .....	10.6	10.5	18.37	15.49*	-16
Office and administrative support.....	16.2	15.5*	16.78	15.98*	-5
Farming, fishing, and forestry.....	0.3	0.1*	11.70	12.21	4
Construction and extraction .....	3.8	4.9*	21.94	19.22*	-12
Installation, maintenance, and repair .....	3.9	4.5*	21.35	21.42	0
Production .....	6.6	5.0*	16.79	18.11*	8
Transportation and material moving.....	6.8	6.3*	16.28	16.27	0

\* 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. ....

(1) A positive percent difference measures how much the mean wage in Virginia Beach-Norfolk-Newport News is above the national mean wage, while a negative percent difference reflects a lower wage.

When compared to the nationwide distribution, Virginia Beach employment was more highly concentrated in 7 of the 22 occupational groups including architecture and engineering, construction and extraction, and food preparation and serving related. Conversely, eight groups had employment shares significantly below their national representation; these groups included production, management, and office and administrative support.

One occupational group—architecture and engineering—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Virginia Beach had 21,590 jobs in architecture and engineering, accounting for 3.0 percent of local area employment, significantly larger than the 1.8-percent share nationally. The average hourly wage for this occupational group locally was \$36.63, significantly less than the national wage of \$38.51.

With employment of 2,030, electrical and electronics engineering technicians was the largest occupation within the architecture and engineering group, followed by mechanical engineers with 1,800 jobs. Among the higher-paying jobs were aerospace engineers and computer hardware engineers, with mean hourly wages of \$55.00 and \$52.15, respectively. At the lower end of the wage scale were surveying and mapping technicians (\$18.81) and architectural and civil drafters (\$22.34). (Detailed occupational data for architecture and engineering are presented in [table 1](#) ; for a complete listing of detailed occupations available go to [www.bls.gov/oes/current/oes\\_47260.htm](http://www.bls.gov/oes/current/oes_47260.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 Virginia Beach area, above-average concentrations of employment were found in several of the occupations within the architecture and engineering group. For instance, marine engineers and naval architects were employed at 19 times the national rate in Virginia Beach, and nuclear engineers at over 18 times the U.S. average. On the other hand, civil engineers had a location quotient of

1.1 in Virginia Beach, 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 Virginia Employment Commission and the North Carolina Department of Commerce.

#### **Note**

OES wage and employment data for the 22 major occupational groups in the Virginia Beach-Norfolk-Newport News 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 sampled establishments in May and November each year for a 3-year period. May 2013 estimates are based on responses from six semiannual panels collected in May 2013, November 2012, May 2012, November 2011, May 2011, and November 2010. The overall national response rate for the six panels is 75.3 percent based on establishments and 71.6 percent based on employment. The sample in the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area included 4,512 establishments with a response rate of 73 percent. For more information about OES concepts and methodology, go to [www.bls.gov/news.release/ocwage.tn.htm](http://www.bls.gov/news.release/ocwage.tn.htm).

The OES survey provides estimates of employment and hourly and annual wages for wage and salary workers in 22 major occupational groups and 821 detailed occupations for the nation, states, metropolitan statistical areas, metropolitan divisions, and nonmetropolitan areas. In addition, employment and wage estimates for 94 minor groups and 458 broad occupations are available in the national data. OES data by state and metropolitan/nonmetropolitan area are available from [www.bls.gov/oes/current/oessrcst.htm](http://www.bls.gov/oes/current/oessrcst.htm) and [www.bls.gov/oes/current/oessrcma.htm](http://www.bls.gov/oes/current/oessrcma.htm), respectively.

The May 2013 OES estimates are based on the 2010 Standard Occupational Classification (SOC) system

and the 2012 North American Industry Classification System (NAICS). Information about the 2010 SOC is available on the BLS website at [www.bls.gov/soc](http://www.bls.gov/soc) and information about the 2012 NAICS is available at [www.bls.gov/bls/naics.htm](http://www.bls.gov/bls/naics.htm).

### **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 **Virginia Beach-Norfolk-Newport News, Va.-N.C. Metropolitan Statistical Area** includes Gloucester, Isle of Wight, James City, Mathews, Surry, and York Counties and Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg cities in Virginia and Currituck County in North Carolina.

### **Additional information**

OES data are available on our regional web page at <http://www.bls.gov/ro3>. Answers to frequently asked questions about the OES data are available at [www.bls.gov/oes/oes\\_ques.htm](http://www.bls.gov/oes/oes_ques.htm). Detailed technical information about the OES survey is available in our Survey Methods and Reliability Statement on the BLS website at [www.bls.gov/oes/2013/may/methods\\_statement.pdf](http://www.bls.gov/oes/2013/may/methods_statement.pdf). Information in this release will be made available to sensory impaired individuals upon request – Voice phone: 202-691-5200; Federal Relay Service: 1-800-877-8339.

**Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area, May 2013**

Occupation <sup>(1)</sup>	Employment <sup>(2)</sup>		Mean wage	
	Level	Location quotient <sup>(3)</sup>	Hourly	Annual <sup>(4)</sup>
Architecture and engineering occupations .....	21,590	1.7	\$36.63	\$76,180
Architects, except landscape and naval .....	490	1.1	35.67	74,190
Landscape architects .....	150	1.6	29.93	62,260
Cartographers and photogrammetrists .....	40	0.7	29.36	61,060
Surveyors .....	260	1.2	29.71	61,800
Aerospace engineers .....	960	2.5	55.00	114,400
Biomedical engineers .....	80	0.8	29.51	61,370
Chemical engineers .....	50	0.3	42.60	88,610
Civil engineers .....	1,640	1.1	37.83	78,690
Computer hardware engineers .....	230	0.5	52.15	108,470
Electrical engineers .....	1,600	1.7	38.98	81,070
Electronics engineers, except computer .....	970	1.3	42.51	88,410
Environmental engineers .....	480	1.7	40.37	83,970
Health and safety engineers, except mining safety engineers and inspectors .....	130	1.0	36.69	76,310
Industrial engineers .....	930	0.7	41.12	85,530
Marine engineers and naval architects .....	690	19.0	39.22	81,580
Materials engineers .....	80	0.6	51.88	107,910
Mechanical engineers .....	1,800	1.3	40.03	83,260
Nuclear engineers .....	1,640	18.3	37.93	78,890
Engineers, all other .....	1,270	1.9	(5)	(5)
Architectural and civil drafters .....	270	0.6	22.34	46,470
Electrical and electronics drafters .....	180	1.1	25.90	53,870
Drafter, all others .....	70	0.9	21.46	44,640
Aerospace engineering and operations technicians .....	(5)	(5)	28.13	58,520
Civil engineering technicians .....	370	1	22.79	47,390
Electrical and electronics engineering technicians .....	2,030	2.6	31.50	65,510
Electro-mechanical technicians .....	170	2.0	(5)	(5)
Environmental engineering technicians .....	120	1.3	18.78	39,070
Industrial engineering technicians .....	300	0.8	26.83	55,810
Mechanical engineering technicians .....	360	1.5	24.04	50,010
Surveying and mapping technicians .....	450	1.7	18.81	39,130

(1) For a complete listing of all detailed occupations in the Virginia Beach-Norfolk-Newport News MSA, see [www.bls.gov/oes/current/oes\\_47260.htm](http://www.bls.gov/oes/current/oes_47260.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.

(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.