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Atlanta, Ga.

For release: Thursday, September 20, 2012

12-1807-ATL

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OCCUPATIONAL EMPLOYMENT AND WAGES IN KNOXVILLE, MAY 2011

Workers in the Knoxville Metropolitan Statistical Area had an average (mean) hourly wage of \$19.45 in May 2011, about 11 percent below the nationwide average of \$21.74, according to the U.S. Bureau of Labor Statistics. Regional Commissioner Janet S. Rankin noted that, after testing for statistical significance, 20 groups had significantly lower wages than their respective national averages, including protective service, construction and extraction, and management.

When compared to the nationwide distribution, local employment was more highly concentrated in 7 of the 22 occupational groups, including healthcare practitioners and technical, food preparation and serving related, and management. Conversely, 10 groups had employment shares significantly below their national representation, including education, training, and library; business and financial operations; and computer and mathematical. (See table A and box note at end of release.)

One occupational group—healthcare practitioners and technical—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Knoxville had 25,970 jobs in healthcare practitioners and technical, accounting for 8.0 percent of local area employment, significantly higher than the 5.9-percent share nationally. The average hourly wage for this occupational group locally was \$31.10, measurably below the national wage of \$34.97.

With employment of 9,870, registered nurses was the largest occupation within the healthcare practitioners and technical group, followed by licensed practical and licensed vocational nurses (2,250) and pharmacy technicians (1,480). Among the higher paying jobs were pharmacists and registered nurses, with mean hourly wages of \$54.81 and \$29.08, respectively. At the lower end of the wage scale were emergency medical technicians and paramedics (\$14.36) and licensed practical and licensed vocational nurses (\$17.07). (Detailed occupational data for healthcare practitioners and technical are presented in table 1; for a complete listing of detailed occupations available go to www.bls.gov/oes/current/oes_28940.htm.)

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

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Knoxville	United States	Knoxville	Percent difference (1)
Total, all occupations	100.0%	100.0%	\$21.74	\$19.45 *	-11
Management	4.8	5.4 *	51.64	43.59 *	-16
Business and financial operations	4.8	3.6 *	33.05	30.20 *	-9
Computer and mathematical	2.7	1.8 *	37.85	31.31 *	-17
Architecture and engineering	1.8	2.4 *	37.08	38.81	5
Life, physical, and social science	0.8	0.7 *	32.44	30.60 *	-6
Community and social service	1.5	1.0 *	21.07	17.15 *	-19
Legal	0.8	0.6 *	47.30	38.37 *	-19
Education, training, and library	6.6	5.1 *	24.46	21.04 *	-14
Arts, design, entertainment, sports, and media	1.3	1.0 *	25.89	20.70 *	-20
Healthcare practitioners and technical	5.9	8.0 *	34.97	31.10 *	-11
Healthcare support	3.1	3.0	13.16	12.51 *	-5
Protective service	2.5	2.1 *	20.54	15.57 *	-24
Food preparation and serving related	8.7	9.5 *	10.30	9.43 *	-8
Building and grounds cleaning and maintenance	3.3	3.7 *	12.29	10.84 *	-12
Personal care and service	2.8	2.8	11.84	10.25 *	-13
Sales and related	10.6	10.0 *	18.04	16.86 *	-7
Office and administrative support	16.7	17.2	16.40	14.94 *	-9
Farming, fishing, and forestry	0.3	0.1 *	11.68	12.18	4
Construction and extraction	3.9	4.3 *	21.46	17.81 *	-17
Installation, maintenance, and repair	3.9	4.3 *	20.86	18.39 *	-12
Production	6.5	6.4	16.45	15.68 *	-5
Transportation and material moving	6.7	7.1	15.96	14.70 *	-8

(1) A positive percent difference measures how much the mean wage in Knoxville 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.

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 than it does nationally. In the Knoxville Metropolitan Statistical Area, above average concentrations of employment were found in many of the occupations within the healthcare practitioners and technical group. For instance, surgical technologists were employed at 2.5 times the national rate in Knoxville, and emergency medical technicians and paramedics, at 1.9 times the U.S. average. On the other hand, licensed practical and licensed vocational nurses had a location quotient of 1.2 in Knoxville, 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 Tennessee Department of Labor & Workforce Development. The OES survey provides estimates of employment and hourly and annual wages for wage and salary workers in 22 major occupational groups and nearly 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 Knoxville 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 also are 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 Knoxville Metropolitan Statistical Area included 2,664 establishments with a response rate of 75 percent. For more information about OES concepts and methodology, go to www.bls.gov/news.release/ocwage.tn.htm.

The May 2011 OES estimates mark the first set of estimates 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 www.bls.gov/oes/oes_ques.htm#Ques41.

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.

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 **Knoxville, Tenn. Metropolitan Statistical Area** includes Anderson, Blount, Knox, Loudon, and Union Counties.

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

Occupation ⁽¹⁾	Employment		Mean Wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Healthcare practitioners and technical occupations	25,970	1.4	\$31.10	\$64,680
Chiropractors	70	1.0	33.22	69,090
Dentists, general	130	0.6	105.39	219,210
Dietitians and nutritionists	130	0.9	24.79	51,550
Pharmacists	930	1.4	54.81	114,010
Anesthesiologists	170	2.1	115.32	239,870
Family and general practitioners	50	0.2	68.06	141,560
Internists, general	(5)	(5)	78.86	164,030
Psychiatrists	40	0.7	83.89	174,480
Surgeons	360	3.4	(6)	(6)
Physicians and surgeons, all other	690	0.9	110.16	229,140
Physician assistants	500	2.4	43.97	91,450
Registered nurses	9,870	1.4	29.08	60,480
Occupational therapists	260	1.0	38.84	80,790
Physical therapists	520	1.1	34.13	71,000
Radiation therapists	70	1.6	30.05	62,500
Recreational therapists	40	0.8	16.64	34,600
Respiratory therapists	480	1.7	21.63	44,990
Speech-language pathologists	400	1.4	27.51	57,210
Veterinarians	100	0.7	37.72	78,470
Audiologists	(5)	(5)	23.93	49,770
Medical and clinical laboratory technologists	590	1.4	25.65	53,350
Medical and clinical laboratory technicians	780	2.0	15.12	31,440
Dental hygienists	570	1.2	34.68	72,130
Cardiovascular technologists and technicians	180	1.4	18.44	38,350
Diagnostic medical sonographers	240	1.7	25.22	52,460
Nuclear medicine technologists	70	1.3	29.23	60,810
Radiologic technologists and technicians	940	1.7	23.90	49,710
Emergency medical technicians and paramedics	1,120	1.9	14.36	29,880
Dietetic technicians	90	1.5	13.57	28,220
Pharmacy technicians	1,480	1.7	12.71	26,430
Surgical technologists	600	2.5	17.01	35,370
Veterinary technologists and technicians	290	1.5	14.19	29,510
Licensed practical and licensed vocational nurses	2,250	1.2	17.07	35,500
Medical records and health information technicians	580	1.3	14.49	30,140
Opticians, dispensing	110	0.8	15.35	31,920
Health technologists and technicians, all other	120	0.5	21.39	44,480
Occupational health and safety specialists	250	1.7	39.35	81,850
Occupational health and safety technicians	60	2.0	30.37	63,160
Athletic trainers	50	1.0	(5)	42,300
Healthcare practitioners and technical workers, all other	360	2.6	24.78	51,540

(1) For a complete listing of all detailed occupations in Knoxville, see www.bls.gov/oes/current/oes_28940.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) Estimate not released.

(6) This wage is equal to or greater than \$90.00 per hour or \$187,199 per year.