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Occupational Employment and Wages in Duluth — May 2016

Workers in the Duluth Metropolitan Statistical Area had an average (mean) hourly wage of \$21.14 in May 2016, about 11 percent below the nationwide average of \$23.86, according to the U.S. Bureau of Labor Statistics. Assistant Commissioner for Regional Operations Charlene Peiffer noted that, after testing for statistical significance, wages in the local area were lower than their respective national averages in 14 of 22 major occupational groups, including management, legal, and computer and mathematical. Four occupational groups had wages that were higher than their respective national averages, including production, construction and extraction, and transportation and material moving. The four remaining occupational groups had wages that were not significantly different from their corresponding national averages.

When compared to the nationwide distribution, local employment was more highly concentrated in 8 of the 22 occupational groups, including personal care and service, healthcare practitioners and technical, and community and social service. Conversely, nine groups had employment shares significantly below their national representation, including production; business and financial operations; and computer and mathematical. (See [table A](#) and [box note](#) at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Duluth Metropolitan Statistical Area, and measures of statistical significance, May 2016

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Duluth	United States	Duluth	Percent difference ⁽¹⁾
Total, all occupations	100.0	100.0	\$23.86	\$21.14*	-11
Management	5.1	4.7	56.74	42.66*	-25
Business and financial operations	5.2	3.3*	36.09	29.39*	-19
Computer and mathematical	3.0	1.3*	42.25	30.82*	-27
Architecture and engineering	1.8	1.7	40.53	35.35*	-13
Life, physical, and social science	0.8	1.0*	35.06	30.26*	-14
Community and social service	1.4	3.2*	22.69	19.92*	-12
Legal	0.8	0.4*	50.95	37.11*	-27
Education, training, and library	6.2	5.9	26.21	24.96	-5
Arts, design, entertainment, sports, and media	1.4	1.0*	28.07	20.02*	-29
Healthcare practitioners and technical	5.9	8.4*	38.06	35.86*	-6
Healthcare support	2.9	4.1*	14.65	14.74	1
Protective service	2.4	2.2	22.03	21.63	-2
Food preparation and serving related	9.2	10.1*	11.47	11.05*	-4
Building and grounds cleaning and maintenance	3.2	3.7*	13.47	13.04	-3
Personal care and service	3.2	5.7*	12.74	11.89*	-7
Sales and related	10.4	9.5*	19.50	15.16*	-22
Office and administrative support	15.7	14.4*	17.91	16.78*	-6
Farming, fishing, and forestry	0.3	0.1*	13.37	18.85*	41

Note: See footnotes at end of table.

Table A. Occupational employment and wages by major occupational group, United States and the Duluth Metropolitan Statistical Area, and measures of statistical significance, May 2016 - Continued

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	Duluth	United States	Duluth	Percent difference ⁽¹⁾
Construction and extraction.....	4.0	4.1	23.51	27.62*	17
Installation, maintenance, and repair	3.9	4.9*	22.45	21.76*	-3
Production	6.5	4.5*	17.88	19.74*	10
Transportation and material moving.....	6.9	5.8*	17.34	18.22*	5

Footnotes:

(1) A positive percent difference measures how much the mean wage in the Duluth 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—healthcare practitioners and technical—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Duluth had 10,600 jobs in healthcare practitioners and technical, accounting for 8.4 percent of local area employment, significantly higher than the 5.9-percent share nationally. The average hourly wage for this occupational group locally was \$35.86, significantly below the national wage of \$38.06.

Some of the largest detailed occupations within the healthcare practitioners and technical group included registered nurses (4,440), licensed practical and licensed vocational nurses (890), and pharmacy technicians (510). Among the higher paying jobs were internists, general with mean hourly wages of \$122.90 and family and general practitioners, \$108.72. At the lower end of the wage scale were veterinary technologists and technicians (\$14.32) and emergency medical technicians and paramedics (\$14.75). (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/2016/may/oes_20260.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 than it does nationally. In the Duluth 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 in Duluth were employed at 2.1 times the national rate, and opticians, dispensing, at 2.0 times the U.S. average. On the other hand, pharmacists in Duluth had a location quotient of 1.1, 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 Minnesota Department of Employment & Economic Development and Wisconsin Department of Workforce Development.

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. 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 2016 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2016, November 2015, May 2015, November 2014, May 2014, and November 2013. The overall national response rate for the six panels, based on the 50 states and the District of Columbia, is 73 percent based on establishments and 69 percent based on weighted sampled employment. The unweighted employment of sampled establishments across all six semiannual panels represents approximately 58 percent of total national employment. The sample in the Duluth Metropolitan Statistical Area included 1,814 establishments with a response rate of 76 percent. For more information about OES concepts and methodology, go to www.bls.gov/news.release/ocwage.tn.htm.

The May 2016 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 and information about the 2012 NAICS is available at www.bls.gov/bls/naics.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.

The **Duluth, Minn. Metropolitan Statistical Area** includes Carlton and St. Louis Counties of Minnesota and Douglas County of Wisconsin.

Additional information

OES data are available on our regional web page at www.bls.gov/regions/midwest. Answers to frequently asked questions about the OES data are available at 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/current/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: (800) 877-8339.

Table 1. Employment and wage data from the Occupational Employment Statistics survey, by occupation, Duluth Metropolitan Statistical Area, May 2016

Occupation ⁽¹⁾	Employment		Mean wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Healthcare practitioners and technical occupations	10,600	1.4	\$35.86	\$74,580
Chiropractors	30	1.0	31.73	65,990
Dentists, general	80	0.9	96.81	201,370
Dietitians and nutritionists	70	1.3	26.75	55,640
Optometrists	50	1.4	58.18	121,020
Pharmacists	300	1.1	56.00	116,470
Family and general practitioners	110	1.0	108.72	226,150
Internists, general	(5)	(5)	122.90	255,640
Surgeons	50	1.2	(6)	(6)
Physicians and surgeons, all other	260	0.9	134.37	279,490
Physician assistants	80	0.9	56.44	117,400
Occupational therapists	140	1.3	30.83	64,130
Physical therapists	270	1.4	36.88	76,720
Respiratory therapists	120	1.1	31.23	64,950
Speech-language pathologists	120	1.0	31.61	65,750
Exercise physiologists	30	5.7	27.59	57,390
Veterinarians	100	1.6	34.11	70,950
Registered nurses	4,440	1.7	29.66	61,690
Nurse anesthetists	80	2.2	92.31	192,010
Nurse practitioners	200	1.5	55.82	116,110
Medical and clinical laboratory technologists	90	0.6	31.03	64,530
Medical and clinical laboratory technicians	190	1.3	23.47	48,830
Dental hygienists	280	1.5	29.42	61,190
Cardiovascular technologists and technicians	70	1.5	33.09	68,830
Diagnostic medical sonographers	60	1.0	35.70	74,250
Radiologic technologists	230	1.3	30.12	62,660
Emergency medical technicians and paramedics	350	1.6	14.75	30,680
Pharmacy technicians	510	1.4	15.28	31,770
Surgical technologists	200	2.1	25.13	52,270
Veterinary technologists and technicians	60	0.7	14.32	29,780
Ophthalmic medical technicians	40	1.1	20.59	42,830
Licensed practical and licensed vocational nurses	890	1.4	20.02	41,630
Medical records and health information technicians	210	1.2	21.64	45,020
Opticians, dispensing	130	2.0	14.93	31,060
Health technologists and technicians, all other	90	0.8	26.24	54,580
Occupational health and safety specialists	120	1.8	35.99	74,850
Healthcare practitioners and technical workers, all other	50	1.7	29.10	60,530

Footnotes:

(1) For a complete listing of all detailed occupations in the Duluth, MN-WI, see www.bls.gov/oes/current/oes_20260.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 \$80.00 per hour or \$166,400 per year.