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**OCCUPATIONAL EMPLOYMENT AND WAGES IN
BOULDER, COLO. – MAY 2010**

Workers in the Boulder Metropolitan Statistical Area had an average (mean) hourly wage of \$25.65 in May 2010, roughly 20 percent above the nationwide average of \$21.35, according to the U.S. Bureau of Labor Statistics. Regional Commissioner Stanley W. Suchman noted that, after testing for statistical significance, wages in the local area were significantly higher than their respective national averages in 14 of the 22 major occupational groups, including life, physical, and social science; sales and related; and healthcare support. Only one group had significantly lower wages than their respective national averages: construction and extraction.

When compared to the nationwide distribution, local employment was more highly concentrated in 7 of the 22 occupational groups, including computer and mathematical, architecture and engineering, and life, physical, and social science. Conversely, 12 groups had employment shares significantly below their national representation, including transportation and material moving, office and administrative support, and production. (See table A and box note at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Boulder Metropolitan Statistical Area, and measures of statistical significance, May 2010

Major occupational group	Percent of total employment		Average hourly wage	
	United States	Boulder	United States	Boulder
Total, all occupations	100.0%	100.0%	\$21.35	\$25.65 *
Management	4.7	4.9	50.69	57.64 *
Business and financial operations	4.8	6.1 *	32.54	35.07 *
Computer and mathematical	2.6	7.4 *	37.13	41.54 *
Architecture and engineering	1.8	4.3 *	36.32	42.06 *
Life, physical, and social science	0.8	2.8 *	31.92	39.06 *
Community and social service	1.5	1.3 *	20.76	20.48
Legal	0.8	0.7 *	46.60	43.95
Education, training, and library	6.7	7.2 *	24.25	24.50
Arts, design, entertainment, sports, and media	1.4	2.2 *	25.14	24.21
Healthcare practitioners and technical	5.8	5.5	34.27	36.74
Healthcare support	3.1	2.3 *	12.94	15.77 *
Protective service	2.5	1.4 *	20.43	21.70
Food preparation and serving related	8.7	9.5 *	10.21	10.98 *
Building and grounds cleaning and maintenance	3.3	2.6 *	12.16	12.89 *
Personal care and service	2.7	2.4 *	11.82	14.07 *
Sales and related	10.6	10.6	17.69	21.63 *
Office and administrative support	16.9	15.1 *	16.09	17.32 *
Farming, fishing, and forestry	0.3	0.2 *	11.70	14.17 *
Construction and extraction	4.0	2.6 *	21.09	20.12 *
Installation, maintenance, and repair	3.9	2.6 *	20.58	21.06
Production	6.5	5.0 *	16.24	17.56 *
Transportation and material moving	6.7	3.4 *	15.70	17.81 *

* 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—architecture and engineering—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Boulder had 6,530 jobs in architecture and engineering, accounting for 4.3 percent of local area employment, significantly higher than the 1.8-percent share nationally. The average hourly wage for this occupational group locally was \$42.06, measurably above the national wage of \$36.32.

With employment of 690, computer hardware engineers was the largest occupation within the architecture and engineering group, followed by mechanical engineers (610) and industrial engineers (430). Among the higher paying jobs were computer hardware engineers and mechanical engineers, with mean hourly wages of \$57.99 and \$48.18, respectively. At the lower end of the wage scale were industrial engineering technicians (\$23.09). (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_14500.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 Boulder Metropolitan Statistical Area, above average concentrations of employment were found in many of the occupations within the architecture and engineering group. For instance, aerospace engineering and operations technicians were employed at 13.8 times the national rate in Boulder, and computer hardware engineers, at 8.7 times the U.S. average. On the other hand, civil engineers had a location quotient of 1.2 in Boulder, 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 Colorado Department of Labor & Employment. 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 non-military 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 Boulder 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 this release. 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 2010 survey was 78.2 percent based on establishments and 74.4 percent based on employment. May 2010 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2010, November 2009, May 2009, November 2008, May 2008, and November 2007. The sample in the Boulder Metropolitan Statistical Area included 1,950 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 2010 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.

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 **Boulder Metropolitan Statistical Area** includes Boulder County in Colorado.

Additional information

OES data are available on our regional web page at www.bls.gov/ro7/home.htm. If you have additional questions, contact the Mountain-Plains Economic Analysis and Information Unit at (816) 285-7000. 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, Boulder Metropolitan Statistical Area, May 2010

Occupation	Employment		Mean Wages	
	Level ^[1]	Location quotient ^[2]	Hourly	Annual
Architecture and engineering occupations	6,530	2.4	\$42.06	\$87,490
Architects, except landscape and naval	400	3.8	25.07	52,140
Landscape architects	[3]	[3]	31.77	66,080
Cartographers and photogrammetrists	30	2.5	32.54	67,690
Surveyors	70	1.2	25.30	52,620
Aerospace engineers	410	4.3	46.79	97,330
Biomedical engineers	30	1.9	44.14	91,810
Civil engineers	360	1.2	39.02	81,150
Computer hardware engineers	690	8.7	57.99	120,620
Electrical engineers	[3]	[3]	53.35	110,970
Electronics engineers, except computer	[3]	[3]	48.03	99,900
Industrial engineers	430	1.8	44.35	92,250
Materials engineers	120	4.4	41.60	86,520
Mechanical engineers	610	2.2	48.18	100,220
Engineers, all other	350	2.1	44.73	93,030
Architectural and civil drafters	[3]	[3]	24.87	51,730
Electrical and electronics drafters	50	1.4	32.08	66,730
Mechanical drafters	50	0.6	26.49	55,110
Aerospace engineering and operations technicians	140	13.8	30.20	62,820
Civil engineering technicians	60	0.6	25.78	53,620
Electrical and electronics engineering technicians	340	1.9	27.40	56,980
Electro-mechanical technicians	40	2.1	23.39	48,640
Industrial engineering technicians	130	1.8	23.09	48,030
Mechanical engineering technicians	150	2.8	27.45	57,100
Engineering technicians, except drafters, all other	90	1.1	31.65	65,830
Surveying and mapping technicians	90	1.3	26.22	54,530

[1] 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.

[2] 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.

[3] Estimate not released.