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## Occupational Employment and Wages in San Diego-Carlsbad-San Marcos, May 2013

Workers in the San Diego-Carlsbad-San Marcos Metropolitan Statistical Area had an average (mean) hourly wage of \$24.95 in May 2013, about 12 percent above the nationwide average of \$22.33, according to the U.S. Bureau of Labor Statistics. Regional Commissioner Richard J. Holden noted that, after testing for statistical significance, wages in the local area were significantly higher than their respective national averages in 18 of the 22 major occupational groups, including healthcare practitioners and technical; legal; and life, physical, and social science. Only one group had significantly lower wages than their respective national averages: transportation and material moving.

When compared to the nationwide distribution, local employment was more highly concentrated in 6 of the 22 occupational groups, including food preparation and serving related, architecture and engineering, and business and financial operations. Conversely, 10 groups had employment shares significantly below their national representation, including transportation and material moving, production, and healthcare practitioners and technical. (See [table A](#) and box note at end of release.)

**Table A. Occupational employment and wages by major occupational group, United States and the San Diego-Carlsbad-San Marcos Metropolitan Statistical Area, and measures of statistical significance, May 2013**

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	San Diego	United States	San Diego	Percent difference <sup>(1)</sup>
Total, all occupations .....	100.0%	100.0%	\$22.33	\$24.95*	12
Management .....	4.9	5.8*	53.15	57.12*	7
Business and financial operations .....	5.0	6.1*	34.14	35.62*	4
Computer and mathematical .....	2.8	3.5*	39.43	42.24*	7
Architecture and engineering .....	1.8	3.1*	38.51	42.27*	10
Life, physical, and social science .....	0.9	1.9*	33.37	37.49*	12
Community and social services .....	1.4	1.3*	21.50	23.51*	9
Legal .....	0.8	0.8	47.89	53.04*	11
Education, training, and library .....	6.3	5.7*	24.76	26.53*	7
Arts, design, entertainment, sports, and media .....	1.3	1.3	26.72	26.28	-2
Healthcare practitioner and technical .....	5.8	5.2*	35.93	41.95*	17
Healthcare support .....	3.0	2.4*	13.61	15.66*	15
Protective service .....	2.5	2.2*	20.92	24.03	15
Food preparation and serving related .....	9.0	10.4*	10.38	10.71*	3
Building and grounds cleaning and maintenance .....	3.2	3.3	12.51	13.35*	7
Personal care and service .....	3.0	2.8	11.88	13.02*	10
Sales and related .....	10.6	10.7	18.37	19.27*	5
Office and administrative support .....	16.2	16.5	16.78	18.09*	8
Farming, fishing, and forestry .....	0.3	0.2*	11.70	12.92*	10

Note: See footnotes at end of table.

**Table A. Occupational employment and wages by major occupational group, United States and the San Diego-Carlsbad-San Marcos Metropolitan Statistical Area, and measures of statistical significance, May 2013 - Continued**

Major occupational group	Percent of total employment		Mean hourly wage		
	United States	San Diego	United States	San Diego	Percent difference <sup>(1)</sup>
Construction and extraction.....	3.8	3.6*	21.94	25.38*	16
Installation, maintenance, and repair .....	3.9	3.5*	21.35	23.30*	9
Production .....	6.6	5.2*	16.79	17.34	3
Transportation and material moving.....	6.8	4.7*	16.28	15.23*	-6

Footnotes:

(1) A positive percent difference measures how much the mean wage in San Diego 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—architecture and engineering—was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. San Diego-Carlsbad-San Marcos had 39,730 jobs in architecture and engineering, accounting for 3.1 percent of local area employment, significantly higher than the 1.8-percent share nationally. The average hourly wage for this occupational group locally was \$42.27, measurably above the national wage of \$38.51.

Some of the largest detailed occupations within the architecture and engineering group included electronics engineers, except computer (4,310), civil engineers (3,960), and computer hardware engineers (3,780). Among the higher paying jobs were electronics engineers (except computer), and nuclear engineers, with mean hourly wages of \$53.10 and \$52.45, respectively. At the lower end of the wage scale were civil engineering technicians (\$26.64) and environmental engineering technicians (\$26.68). (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/2013/may/oes\\_41740.htm](http://www.bls.gov/oes/2013/may/oes_41740.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 San Diego-Carlsbad-San Marcos Metropolitan Statistical Area, above average concentrations of employment were found in many of the occupations within the architecture and engineering group. For instance, computer hardware engineers were employed at 5.0 times the national rate in San Diego, and electronics engineers, except computer, at 3.3 times the U.S. average. On the other hand, architects, except landscape and naval had a location quotient of 1.1 in San Diego, 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 California Employment Development Department.

## Note

OES wage and employment data for the 22 major occupational groups in the San Diego 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 San Diego-Carlsbad-San Marcos Metropolitan Statistical Area included 6,436 establishments with a response rate of 67 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/oesrcst.htm](http://www.bls.gov/oes/current/oesrcst.htm) and [www.bls.gov/oes/current/oesrcma.htm](http://www.bls.gov/oes/current/oesrcma.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 San Diego-Carlsbad-San Marcos, Calif. Metropolitan Statistical Area** includes San Diego County.

## **Additional information**

OES data are available on our regional web page at [www.bls.gov/regions/west/home.htm](http://www.bls.gov/regions/west/home.htm). 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, San Diego-Carlsbad-San Marcos Metropolitan Statistical Area, May 2013**

Occupation (1)	Employment		Mean wages	
	Level (2)	Location quotient (3)	Hourly	Annual(4)
Architecture and Engineering Occupations.....	39,730	1.7	\$42.27	\$87,910
Architects, Except Landscape and Naval.....	880	1.1	46.74	97,220
Landscape Architects.....	410	2.6	34.44	71,630
Cartographers and Photogrammetrists.....	190	1.8	31.79	66,130
Surveyors.....	470	1.2	38.11	79,260
Aerospace Engineers.....	1,260	1.8	48.28	100,420
Biomedical Engineers.....	430	2.2	46.58	96,890
Chemical Engineers.....	230	0.7	41.16	85,610
Civil Engineers.....	3,960	1.6	43.85	91,200
Computer Hardware Engineers.....	3,780	5.0	45.06	93,730
Electrical Engineers.....	2,990	1.8	49.74	103,450
Electronics Engineers, Except Computer.....	4,310	3.3	53.10	110,440
Environmental Engineers.....	640	1.2	41.22	85,730
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors.....	280	1.2	43.63	90,750
Industrial Engineers.....	2,680	1.2	44.14	91,800
Materials Engineers.....	230	1.0	43.96	91,430
Mechanical Engineers.....	3,410	1.4	45.10	93,800
Nuclear Engineers.....	280	1.8	52.45	109,090
Engineers, All Other.....	3,020	2.6	49.75	103,490
Architectural and Civil Drafters.....	1,350	1.6	26.75	55,640
Electrical and Electronics Drafters.....	770	2.7	28.37	59,010
Mechanical Drafters.....	340	0.6	30.77	64,000
Drafters, All Other.....	120	0.8	22.98	47,800
Aerospace Engineering and Operations Technicians.....	120	1.2	33.89	70,490
Civil Engineering Technicians.....	510	0.8	26.64	55,410
Electrical and Electronics Engineering Technicians.....	3,020	2.2	29.63	61,630
Electro-Mechanical Technicians.....	330	2.2	28.42	59,120
Environmental Engineering Technicians.....	120	0.7	26.68	55,500
Industrial Engineering Technicians.....	540	0.8	28.13	58,510
Mechanical Engineering Technicians.....	780	1.7	26.95	56,060
Engineering Technicians, Except Drafters, All Other.....	1,760	2.7	32.31	67,200
Surveying and Mapping Technicians.....	370	0.8	28.40	59,070

Footnotes:

(1) For a complete listing of all detailed occupations in San Diego-Carlsbad-San Marcos, CA, see [www.bls.gov/oes/current/oes\\_41740.htm](http://www.bls.gov/oes/current/oes_41740.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.