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Occupational Employment and Wages in Houston-Sugar Land-Baytown, 2013

Workers in the Houston-Sugar Land-Baytown Metropolitan Statistical Area had an average (mean) hourly wage of \$23.96 in May 2013, 7 percent above the nationwide average of \$22.33, 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 12 of the 22 major occupational groups, including legal; sales and related; and architecture and engineering. Six groups had wages that were measurably lower than their respective national averages; included in this grouping were protective service and construction and extraction.

When compared to the nationwide distribution, Houston employment was more highly concentrated in 5 of the 22 occupational groups including construction and extraction; architecture and engineering; and installation, maintenance, and repair. Conversely, nine groups had employment shares significantly below their national representation, including healthcare practitioners and technical; healthcare support; and community and social service. (See [table A](#) and [box note](#) at end of release.)

Table A. Occupational employment and wages by major occupational group, United States and the Houston-Sugar Land-Baytown Metropolitan Statistical Area, and measures of statistical significance, May 2013

Major occupational group	Percent of total employment			Mean hourly wage			
	United States	Houston-Sugar Land-Baytown		United States	Houston-Sugar Land-Baytown		Percent difference ⁽¹⁾
Total, all occupations	100.0%	100.0%		\$22.33	\$23.96	*	7
Management	4.9	4.9		53.15	59.31	*	12
Business and financial operations.....	5.0	4.6	*	34.14	38.80	*	14
Computer and mathematical	2.8	2.7		39.43	41.67	*	6
Architecture and engineering	1.8	3.2	*	38.51	49.56	*	29
Life, physical, and social science	0.9	1.1	*	33.37	43.42	*	30
Community and social service.....	1.4	0.8	*	21.50	22.91	*	7
Legal.....	0.8	0.7		47.89	58.32	*	22
Education, training, and library.....	6.3	5.6	*	24.76	25.18		2
Arts, design, entertainment, sports, and media.....	1.3	0.9	*	26.72	22.47	*	-16
Healthcare practitioners and technical	5.8	4.9	*	35.93	37.37	*	4
Healthcare support.....	3.0	2.0	*	13.61	13.48		-1
Protective service	2.5	2.4		20.92	18.63	*	-11
Food preparation and serving related	9.0	8.5	*	10.38	9.92	*	-4
Building and grounds cleaning and maintenance.....	3.2	2.9	*	12.51	10.52	*	-16
Personal care and service.....	3.0	2.9		11.88	10.30	*	-13
Sales and related	10.6	10.6		18.37	21.13	*	15
Office and administrative support.....	16.2	16.4		16.78	17.17	*	2

Note: See footnotes at end of table.

Table A. Occupational employment and wages by major occupational group, United States and the Houston-Sugar Land-Baytown Metropolitan Statistical Area, and measures of statistical significance, May 2013 - Continued

Major occupational group	Percent of total employment			Mean hourly wage			Percent difference ⁽¹⁾
	United States	Houston-Sugar Land-Baytown		United States	Houston-Sugar Land-Baytown		
Farming, fishing, and forestry	0.3	0.1	*	11.70	12.25		5
Construction and extraction.....	3.8	6.1	*	21.94	20.09	*	-8
Installation, maintenance, and repair	3.9	4.4	*	21.35	21.48		1
Production	6.6	6.9	*	16.79	18.47	*	10
Transportation and material moving.....	6.8	7.3		16.28	17.66	*	8

(1) A positive percent difference measures how much the mean wage in Houston-Sugar Land-Baytown 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 – illustrates the diversity of data available for any of the 22 major occupational categories. Houston had 89,620 jobs in architecture and engineering, accounting for 3.2 percent of local area employment, significantly above the 1.8-percent national share. The local average hourly wage for this occupational group was \$49.56, nearly 30 percent above the national average of \$38.51.

Some of the largest occupations within the architecture and engineering group included petroleum engineers (12,520), civil engineers (10,700), and mechanical engineers (7,720). Among the higher paying jobs were petroleum engineers and chemical engineers, with mean hourly wages of \$78.60 and \$67.06, respectively. At the lower end of the wage scale were surveying and mapping technicians (\$20.96) and architectural and civil engineering technicians (\$23.75). (Detailed occupational data for the architecture and engineering group are presented in [table 1](#); for a complete listing of all detailed occupations go to www.bls.gov/oes/current/oes_26420.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 Houston metropolitan area, above average concentrations of employment were found in many of the detailed occupations within the architecture and engineering group. For instance, marine engineers and naval architects were employed at 10 times the national rate in Houston, and petroleum engineers, at more than 17 times the U.S. average. On the other hand, electrical engineers had a location quotient of 1.1 in Houston, 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 Texas Workforce Commission.

Note

OES wage and employment data for the 22 major occupational groups in the Houston-Sugar Land-Baytown 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 Houston-Sugar Land-Baytown Metropolitan Statistical Area included 9,786 establishments with a response rate of 55 percent. For more information about OES concepts and methodology, go to 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 and 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 and information about the 2012 NAICS is available at 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 **Houston-Sugar Land-Baytown Metropolitan Statistical Area (MSA)** includes includes Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, and Waller Counties in Texas.

Additional information

OES data are available on our regional web page at www.bls.gov/regions/southwest/home.htm. 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/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, Houston-Sugar Land-Baytown Metropolitan Statistical Area, May 2013

Occupation ⁽¹⁾	Employment		Mean wages	
	Level ⁽²⁾	Location quotient ⁽³⁾	Hourly	Annual ⁽⁴⁾
Architecture and engineering occupations	89,620	1.8	\$49.56	\$103,090
Architects, except landscape and naval	2,230	1.3	41.96	87,290
Landscape architects	150	0.43	35.31	73,450
Cartographers and photogrammetrists.....	180	0.8	30.37	63,180
Surveyors	2,220	2.6	26.84	55,830
Aerospace engineers	2,630	1.8	55.22	114,850
Biomedical engineers	370	0.9	41.45	86,210
Chemical engineers.....	4,400	6.4	67.06	139,490
Civil engineers.....	10,700	2.0	53.21	110,670
Computer hardware engineers.....	1,190	0.7	48.33	100,520
Electrical engineers.....	3,980	1.1	49.20	102,330
Electronics engineers, except computer	3,130	1.1	46.54	96,810
Environmental engineers.....	1,040	0.9	52.59	109,380
Health and safety engineers, except mining safety engineers and inspectors	860	1.7	52.65	109,510
Industrial engineers	5,740	1.2	56.31	117,130
Marine engineers and naval architects.....	1,380	10.0	52.34	108,860
Materials engineers	550	1.1	46.87	97,490
Mechanical engineers	7,720	1.4	50.61	105,260
Mining and geological engineers, including mining safety engineers	730	4.4	71.10	147,880
Nuclear engineers	(5)	(5)	39.71	82,600
Petroleum engineers	12,520	17.2	78.60	163,490
Engineers, all other	3,340	1.3	57.48	119,550
Architectural and civil drafters	3,930	2.1	25.17	52,360
Electrical and electronics drafters	1,610	2.6	35.22	73,260
Mechanical drafters	1,800	1.4	32.19	66,960
Drafters, all other.....	640	2.08	29.53	61,420
Aerospace engineering and operations technicians ...	(5)	(5)	32.28	67,150
Civil engineering technicians.....	1,940	1.3	23.75	49,400
Electrical and electronics engineering technicians.....	3,620	1.2	31.02	64,530
Electro-mechanical technicians.....	(5)	(5)	25.16	52,330
Environmental engineering technicians.....	550	1.5	24.05	50,030
Industrial engineering technicians	1,070	0.8	37.53	78,060
Mechanical engineering technicians	1,690	1.8	30.28	62,990
Engineering technicians, except drafters, all other	3,960	2.9	33.89	70,500
Surveying and mapping technicians.....	2,550	2.6	20.96	43,600

(1) For a complete listing of all detailed occupations in the Houston-Sugar Land-Baytown MSA, see www.bls.gov/oes/current/oes_26420.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.