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OCCUPATIONAL EMPLOYMENT AND WAGES IN HOUSTON-SUGAR LAND-BAYTOWN, MAY 2011

Workers in the Houston-Sugar Land-Baytown Metropolitan Statistical Area had an average (mean) hourly wage of $22.83 in May 2011, 5 percent above the nationwide average of $21.74, 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 9 of the 22 major occupational groups, including architecture and engineering and management. Six other 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 6 of the 22 occupational groups including construction and extraction, architecture and engineering, and production. Conversely, 10 groups had employment shares significantly below their national representation; these groups included healthcare practitioners and technical and food preparation and serving related. (See table A and box note at end of release.)

One occupational group – architecture and engineering – was chosen to illustrate the diversity of data available for any of the 22 major occupational categories. Houston had 77,820 jobs in architecture and engineering, accounting for 3.0 percent of local area employment, significantly above the national share of 1.8 percent. The average hourly wage for this occupational group was $45.82, nearly 25 percent above the national average of $37.08.

With employment of 11,300, petroleum engineers was the largest occupation within the architecture and engineering group, followed by civil engineers (8,940) and mechanical engineers (6,730). Among the higher paying jobs were petroleum engineers and chemical engineers, with mean hourly wages of $70.00 and $62.02, respectively. At the lower end of the wage scale were civil engineering technicians ($22.39) and surveying and mapping technicians ($18.55). (Detailed occupational data for the architecture and engineering group are presented in table 1; for a complete listing of 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-Sugar Land-Baytown metropolitan area, above average concentrations of employment were found in many of the detailed occupations within the architecture and engineering group. For instance, chemical engineers were employed at almost 6 times the national rate in Houston, and petroleum engineers, at over 18 times the U.S. average. On the other hand, industrial engineers had a location quotient of 1.0 in Houston, meaning the local employment share in this particular occupation matched the national average.

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 2011

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%	$21.74	$22.83 *	5
Management	4.8	5.2 *	51.64	55.70 *	8
Business and financial operations	4.8	4.3 *	33.05	35.44 *	7
Computer and mathematical	2.7	2.5	37.85	38.46	2
Architecture and engineering	1.8	3.0 *	37.08	45.82 *	24
Life, physical, and social science	0.8	1.0 *	32.44	38.79 *	20
Community and social service	1.5	0.8 *	21.07	22.69 *	8
Legal	0.8	0.7 *	47.30	55.79 *	18
Education, training, and library	6.6	6.5	24.46	25.04	2
Arts, design, entertainment, sports, and media	1.3	0.9 *	25.89	21.71 *	-16
Healthcare practitioners and technical	5.9	5.1 *	34.97	35.22	1
Healthcare support	3.1	2.4 *	13.16	12.97	-1
Protective service	2.5	2.4	20.54	17.89 *	-13
Food preparation and serving related	8.7	8.1 *	10.30	9.65 *	-6
Building and grounds cleaning and maintenance	3.3	2.8 *	12.29	10.69 *	-13
Personal care and service	2.8	2.6 *	11.84	10.46 *	-12
Sales and related	10.6	10.7	18.04	19.25 *	7
Office and administrative support	16.7	16.6	16.40	16.75 *	2
Farming, fishing, and forestry	0.3	0.1 *	11.68	11.83	1
Construction and extraction	3.9	5.9 *	21.46	19.28 *	-10
Installation, maintenance, and repair	3.9	4.5 *	20.86	20.71	-1
Production	6.5	6.9 *	16.45	18.19 *	11
Transportation and material moving	6.7	6.9	15.96	17.11	7

* 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.

[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.

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. 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 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.

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 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 Houston-Sugar Land-Baytown Metropolitan Statistical Area included 9,650 establishments with a response rate of 59 percent. For more information about OES concepts and methodology, go to www.bls.gov/news.release/ocwage.tn.htm.

The May 2011 OES estimates are 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 **Houston-Sugar Land-Baytown, Texas, Metropolitan Statistical Area (MSA)** 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/ro6. If you have additional questions, contact the Southwest Information Office at 972-850-4800. Information in this release will be made available to sensory impaired individuals upon request – Voice phone: 202-691-5200; TDD message referral phone: 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 2011

Occupation[1]	Employment[2]		Mean wages	
	Level	Location quotient[3]	Hourly	Annual[4]
Architecture and engineering occupations	77,820	1.7	$45.82	$95,310
Architects, except landscape and naval	2,100	1.3	39.43	82,020
Landscape architects	(5)	(5)	24.95	51,890
Cartographers and photogrammetrists	240	1.1	31.42	65,360
Surveyors	1,440	1.7	26.81	55,770
Aerospace engineers	2,890	1.8	54.38	113,120
Biomedical engineers	420	1.3	43.44	90,360
Chemical engineers	3,040	5.5	62.02	129,000
Civil engineers	8,940	1.8	49.75	103,480
Computer hardware engineers	1,530	1.1	44.50	92,550
Electrical engineers	2,800	0.9	43.82	91,140
Electronics engineers, except computer	2,260	0.8	45.06	93,730
Environmental engineers	890	0.9	61.61	128,140
Health and safety engineers, except mining safety engineers and inspectors	1,070	2.3	42.96	89,360
Industrial engineers	4,160	1.0	48.91	101,740
Marine engineers and naval architects	660	6.1	46.62	96,960
Materials engineers	560	1.3	39.63	82,440
Mechanical engineers	6,730	1.4	48.08	100,000
Mining and geological engineers, including mining safety engineers	350	2.7	65.60	136,440
Nuclear engineers	60	0.2	64.44	134,030
Petroleum engineers	11,300	18.4	70.00	145,590
Engineers, all other	4,600	1.8	52.03	108,220
Architectural and civil drafters	2,390	1.4	25.41	52,840
Electrical and electronics drafters	1,210	2.2	30.43	63,290
Mechanical drafters	2,150	1.7	27.83	57,880
Drafters, all other	700	2.2	27.69	57,600
Aerospace engineering and operations technicians	(5)	(5)	30.20	62,810
Civil engineering technicians	2,020	1.4	22.39	46,580
Electrical and electronics engineering technicians	3,810	1.3	30.19	62,800
Electro-mechanical technicians	(5)	(5)	24.05	50,010
Environmental engineering technicians	500	1.3	25.17	52,350
Industrial engineering technicians	870	0.7	30.51	63,450
Mechanical engineering technicians	1,620	1.8	31.21	64,920
Engineering technicians, except drafters, all other	3,160	2.4	31.64	65,820
Surveying and mapping technicians	2,100	2.2	18.55	38,580

[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 available.