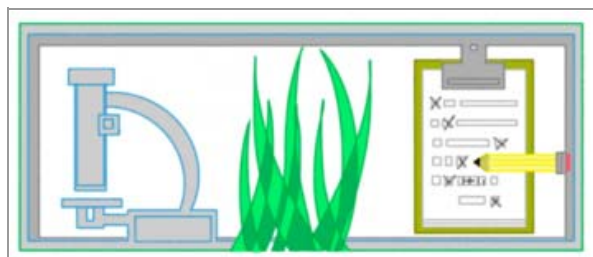


TOP CITIES FOR ENGINEERS BASED ON ACTUAL VS. EXPECTED WAGES

by Rob Sentz 10/04/2012



EMSI recently developed a methodology for calculating expected wages for occupations by region. The analysis is aimed at helping us better understand what regional earnings should be given the performance of a set of standardized occupations that are ubiquitous, stable, and diverse across the US economy. It's a bit like the consumer

price index, just for occupations.

Read more about that [here](#).

To illustrate how enlightening this can be, we produced a high-level summary for architecture and engineering occupations (SOC 17) to see what cities rank above and below where you might expect. In this case, we limited our analysis to metros with greater than 190,000 jobs. **Also note, we are using 2011 wages in this model**, and most of the occupations in the group are related to engineering.

Looking for a job?

The top six MSAs on our list are the cities (*190,000+ jobs*) with the highest actual-to-expected ratios in that nation. They are therefore good regions for jobseekers and employees because of the higher-than-expected wages. Also notice how these are cities you might not expect (e.g., San Francisco and Seattle aren't on the list). Why? Well, the wages in those cities are good, but there is more competition (in the form of talent), the cost of living is quite high, and the other occupations in the region are also pretty high-paying. The regions we have listed here have architecture and engineering jobs that are paid substantially higher than what we would predict given the local economy.

1. Augusta-Richmond MSA

Right off the bat, the model gives us some data that we might not have expected. The **Augusta-Richmond MSA**, which is spread between the Georgia-South Carolina border, has the highest actual-to-expected ratio (1.15). Based upon our analysis of a set of standardized occupations, we expect that architecture and engineering occupations would make \$34.29 per hour (average earnings for all occupations in this category) in this MSA. In reality, wages are just about **\$5.00 per hour more** (\$39.36), which is significant.

This means that the Augusta-Richmond MSA has the highest national earnings for architecture and engineering given the conditions in the local economy. This also makes Augusta-Richmond the second-highest paying region for these jobs among cities where wages are higher than we would expect. This MSA also has the highest percent job growth since 2009, which might be a prime factor contributing to the higher-than-expected wages. High local demand means that companies have to pay more to get the workers they want. This region also has a concentration of architecture and engineering workers above the national average.

Oddly enough, the labor market in this area has actually declined by 1% since 2009, which equals a loss of more than 3,000 jobs. Sectors like construction and education are still not doing very well.

So what companies might we be talking about in Augusta-Richmond? After all, if you are considering a job as an engineer or architect, this seems like a good region to focus on. We

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WAGE INDEX FOR ARCHITECTURE & ENGINEERING OCCUPATIONS

Top & Bottom Six Metro Areas

ACTUAL ABOVE EXPECTED	ACTUAL	EXPECTED	ACTUAL / EXPECTED	CURRENT JOBS	09-12 GROWTH
Augusta-Richmond County, GA-SC	\$39.36	\$34.29	1.15	6,580	12.50%
Knoxville, TN	\$37.35	\$32.66	1.14	8,525	8.30%
Oklahoma City, OK	\$39.19	\$34.65	1.13	13,806	10.30%
Baton Rouge, LA	\$37.68	\$33.36	1.13	9,365	-2.50%
Huntsville, AL	\$44.48	\$39.51	1.13	15,784	-8.00%
Ogden-Clearfeild, UT	\$36.48	\$32.54	1.12	4,811	-1.00%
ACTUAL BELOW EXPECTED	ACTUAL	EXPECTED	ACTUAL / EXPECTED	CURRENT JOBS	09-12 GROWTH
Milwaukee-Waukesha-West Allis, WI	\$32.81	\$36.69	0.89	15,998	0.00%
Columbus, OH	\$32.26	\$36.26	0.89	14,576	-3.00%
New York-Northern New Jersey-Long Island, NY-NJ-PA	\$39.54	\$44.72	0.88	92,511	-1.00%
Lakeland-Winter Haven, FL	\$26.77	\$30.30	0.88	1,881	-9.00%
Trenton-Ewing, NJ	\$38.61	\$43.80	0.88	4,084	-5.10%
Fayetteville-Springdale-Rogers, AR-MO	\$27.06	\$31.66	0.85	2,475	1.20%

Data from: EMSI's Expected Wage estimating procedure



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searched through Equifax data, which is now part of our tools, and found that **URS** has a strong presence in the region. If you are not familiar, URS is on the list of top 500 largest companies in America. **CH2M Hill**, **Ingersoll Rand**, and **John Deere** also employ engineers in this area.

2. Knoxville, Tenn.



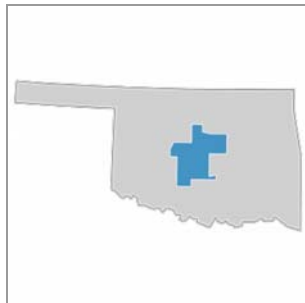
With an actual-to-expected ratio of 1.14, **Knoxville** is No. 2 on the list. Actual wages (\$37.35 per hour) are \$4.69 more than we would expect and, like Augusta-Richmond, we see good job growth since 2009. Also note that there are 2,000 more jobs in this region than Augusta-Richmond. In general, Knoxville's economy is healthier than the top city in our

list. Since 2009, the region has expanded by 4%, adding some 14,000 new jobs.

A high demand for engineers in the region is also likely driving the wages up to levels higher than we would expect. A big factor here is **Oak Ridge National Laboratory**. URS also has a presence in Knoxville, as does **Navarro Research**, a big government contracting firm, and **ABSG Consulting**, a company that designs products and services for risk management.

Obviously, people who focus on engineering and architecture would have many other employment opportunities with different types of companies, but these are just good examples of groups that employ engineers.

3. Oklahoma City, Okla.



The third city with better-than-expected wages for architecture and engineering occupations is **Oklahoma City**. Wages are \$4.50 above where we would expect and job growth is strong (more than 10% since 2009). Also, with nearly 14,000 current jobs, OKC is a good spot for engineers to be looking.

OKC is also demonstrating very healthy growth. Architecture and engineering gained 1,300 new jobs since 2009 and the overall economy grew by over 14,000 jobs. This is even better than our previous two cities.

With companies like **Interim Solutions for Government**, OKC is a big city for government contracting. Firms like Northrop Grumman, **CH2M Hill**, **Chesapeake Energy**, **Wyle**, and **Boeing** also have a strong presence there.

4. Baton Rouge, La.



Unlike our previous three cities, **Baton Rouge** has experienced overall decline since 2009. Despite this, the actual-to-expected ratio is quite high (1.13) and wages are \$4.32 per hour higher than we would expect.

A more stagnant economy combined with a dip in total employment should result in a drop in wages in the coming years. It should also be noted that the region has more than 9,000 jobs in this sector and a relatively high concentration (when compared to the state and nation) for architecture and engineering jobs. However, the regional concentration is slipping more toward the national average and away from specialization.

Basic summary: Wages are still pretty high, but the job market isn't as good as Knoxville or Augusta-Richmond.

Jacobs Engineering, **Richard Design Services**, and **Stebbins Engineering** have a presence in this region.

5. Huntsville, Ala.



Huntsville, which is fifth on our list, is the highest-paying metro region on the list. Despite that good news, architecture and engineering jobs have contracted by a surprising 8% since 2009, making it the second-worst city in terms of decline on this list. The regional labor market in general has contracted by 2% in that same period. The only occupation category to lose more jobs than architecture and engineering is production. Pretty much every engineering occupation — from aerospace, which is the largest engineering sector, to mechanical — lost jobs.

As it stands, hourly wages for architecture and engineering occupations are still \$5.00 higher than we would predict and even \$5.00 higher than a place like the New York City MSA. So, if you can find an architecture or engineering job here, it's likely going to be well-paying for the economy. Again, wages are high, but the labor market is pretty shaky.

Huntsville is pretty well known for aerospace and defense (companies like **Northrop Grumman**, **Raytheon** and **Lockheed Martin**) and the **Cummings Research Park**.

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