

Analysis of Accounting Wages Within the Largest Cities of Texas

Submitted by: Halee Morehead // Sponsored by: Dr. Ryan Phelps

Submitted for Class Credit by: Zuleima Espino, Delyla Frederick, Allyson Gallier, and Halee Morehead

Developing An Idea

Upon graduating many students wonder what they will be making their first year out of college. There are many characteristics one takes into consideration when choosing a career. While this may not stand true for everyone, many students consider pay. Knowing in the long run that a certain major will pay off is key information. For our empirical project our group decided to determine what influences the wages for accounting jobs.

Summary Statistics Table

	Mean	Std. Dev.	Min.	Max.	Count
Wages	35.012	10.748	10.5	62.5	100
Houston	0.360	0.482	0	1	100
San Antonio	0.250	0.435	0	1	100
Austin	0.140	0.349	0	1	100
Dallas	0.250	0.435	0	1	100
Audit	0.480	0.502	0	1	100
Manager	0.280	0.451	0	1	100
Staff	0.300	0.461	0	1	100
Senior	0.420	0.496	0	1	100
Years	3.440	1.702	0	10	100

Correlation Matrix

	Wages	Houston	San Antonio	Austin	Dallas	Audit	Staff	Senior	Manager	Years
Wages	1									
Houston	0.203	1								
San Antonio	-0.131	-0.433	1							
Austin	0.063	-0.303	-0.233	1						
Dallas	-0.145	-0.433	-0.333	-0.233	1					
Audit	0.165	-0.095	-0.092	0.247	0.000	1				
Staff	-0.657	-0.036	0.126	-0.013	-0.076	-0.061	1			
Senior	0.200	-0.089	-0.023	0.007	0.117	0.237	-0.557	1		
Manager	0.451	0.135	-0.103	0.005	-0.051	-0.198	-0.408	-0.531	1	
Years	0.577	0.162	-0.095	-0.020	-0.068	-0.013	-0.570	0.138	0.430	1

Exploring Our Idea

When collecting our data, we chose to test four major cities within Texas, two different job titles, three position levels, and years of experience required. We found 100 job ads within these four cities and recorded the appropriate variables. Next, we created a summary statistics table, correlation matrix table, and a regression analysis as shown below.

Regression Analysis

	Model 1	Model 2	Model 3	Model 4
Houston	** 4.874 (1.934)	** 3.163 (1.553)	* 3.809 (2.273)	*** 5.617 (1.967)
San Antonio	2.530 (2.082)		0.829 (2.45)	2.865 (2.137)
Austin	3.275 (2.488)		2.845 (2.938)	3.477 (2.558)
Audit	** 3.899 (1.559)	*** 4.152 (1.511)	** 3.613 (1.79)	** 3.966 (1.603)
Staff	*** -14.949 (2.414)	*** -14.72 (2.399)		*** -18.581 (1.998)
Senior	** -4.535 (1.909)	** -4.683 (1.903)		*** -5.701 (1.906)
Years	** 1.391 (.549)	*** 1.436 (.549)	*** 3.518 (.518)	

* - 90% confidence level/ 10% significance level
 ** - 95% confidence level/ 5% significance level
 *** - 99% confidence level/ 1% significance level

	Regression Statistics 1	Regression Statistics 2	Regression Statistics 3	Regression Statistics 4
R Square	0.574	0.563	0.385	0.544
Adjusted R Square	0.541	0.540	0.353	0.515

Our Results

The summary statistics table determined that the average hourly wage for tax and audit accounting positions within Texas is \$35.01. The correlation matrix table showed us that years of experience required for a job and the position levels are more correlated with hourly wages than location. According to the regression results, 54% of the variation in accounting wages, within the largest cities of Texas, is explained by our model. One thing we found interesting was that the regression results determined Houston jobs pay higher than San Antonio, Austin, and Dallas. Just out of curiosity, we decided to find a salary generating website and use the same variables used in our model. The results we received from the website confirmed that our model was somewhat accurate and efficient in determining the average wage of an accounting job. All in all, our empirical project provided us with a great model to help explain the variation in average wages of accounting jobs, but there is always room for improvement by enlarging the sample size and adding more statistically significant variables.

ATTENTION: ACCOUNTING MAJORS!!

Do you want to find out how much income you will produce in your first year out in the real world?

Use our model to compute a 54% accurate result

$$\hat{Y} = 31.9 + 4.874(\text{Houston}) + 2.53(\text{San Antonio}) + 3.275(\text{Austin}) + 3.899(\text{Audit}) - 14.949(\text{Staff}) - 4.535(\text{Senior}) + 1.39(\text{Experience})$$

Choose a City

- Houston?
- San Antonio?
- Austin?
- Dallas?

Select a Job Type

- Audit?
- Tax?

Pick a Position Level

- Staff?
- Senior?
- Manager?

Enter Years of Experience

- 0?
- 1?
- 3?
- 5?