Date: 10/26/2017

To: Dr. Dawit Zerom

From: Sanchit Singh

Subject: Texas Wages

Carol Capaldo is in a dilemma whether more education increases one’s earning. For this purpose, she collected sample hourly wages of 3 different levels of education with 30 Texas workers each. The sample includes workers with a bachelor’s degree or higher, only a high school diploma, and workers who did not finish high school. Similarly, based on the different average salaries within one educational level, rather than the average salary as a whole, the importance of education is measured individually. Hence, the table 1 (shown below) is created to showcase descriptive analysis.

As per the case, the average hourly salary (mean) of bachelor’s degree holder is the highest (22.96), and the average hourly wage (mean) with no high school degree is the lowest (10.461). We are 95% confident with the dataset provided that the minimum hourly salary of bachelor’s degree holder is the highest among the three education level. Also with the same confidence level (95%), we can provide an analysis about the upper and lower limit of the average hourly salaries among different education levels.

Furthermore, as we advance in the education level (from bachelor’s to graduate), the earning might increase, as the lower and upper limit increase exponentially with each education level. Consequently, as the education level increases, the minimum, as well as maximum hourly average salary, also increases. As per the table below, the minimum hourly wage 16.85 with a Bachelor’s degree is higher than the minimum hourly wage 4.62 of a No High School Diploma holder. Also, among the three education levels mentioned in the case, the maximum salaries are substantial for the highest education level.

In conclusion, we can say that as we progress in our education level, from bachelor’s to graduate degree, we can be assured to receive a good return on investment. With our statistical findings, we believe that producing college graduates and keeping them in Texas benefits the business community. With good earning, college graduates will help the state provide more revenue and contribute more towards the overall advancement of the community. Hence, it is likely to say that increasing the education level will proliferate one’s earning.

**Table 1: Summary measures for three education level; No High School Diploma, High School Diploma and Bachelor’s Degree.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | ***No High School Diploma*** | ***High School Diploma*** | ***Bachelor's Degree*** |
| Mean | 10.461 | 12.261 | 22.960 |
| Median | 10.495 | 11.84 | 22.36 |
| Standard Deviation | 2.369 | 3.552 | 3.563 |
| Coefficient of Variation | 0.227 | 0.290 | 0.155 |
| Minimum | 4.62 | 6.5 | 16.85 |
| Maximum | 15.97 | 21.67 | 30.53 |
| Lower Limit | 10.455 | 12.253 | 22.952 |
| Upper Limit | 10.466 | 12.269 | 22.968 |