Group 6 Statistical Analysis

A CEO’s salary compares extremely favorably to that of an average employee. Based on our CEO Salary to Median Worker Pay Ratio – the average CEO makes $29,019 for every $1 that their average employee makes. There are certain industry specific scenarios where an even heavier weighted ratio towards the CEO can be explained.

The industry “Hotels, Restaurants, and Leisure” is a sector that has historically relied on low to minimum wage workers to handle the bulk of day-to-day operations, which would make one expect that this industry would have a very large ratio. So, while an extreme outlier of a ratio, a CEO earning nearly $120,000 for every $1 their average employee makes, aligns with the operation procedures of the industry at large.

The industries that have some of the lowest CEO Salary to Median Worker Pay Ratio also align with standard industry factors. The industries with the lowest ratios are “Aerospace & Defense”, “Banking”, and “Trading Companies.” All of these industries have a higher barrier of entry than an industry like “Retail” or “Hotels, Restaurants, and Leisure.” Since the barrier of entry is higher in these industries, meaning more is expected of a candidate to fill a role. We can expect these industries to have a lower ratio because the average employee is making much more than that of low barrier industries. The average CEO of “Aerospace & Defense”, “Banking”, and “Trading Companies” companies makes around $17,000 for every $1 their average employee makes. That number is nearly a $100,000 decrease compared to CEOs from the “Hotels, Restaurants, and Leisure” industry.

When evaluating what makes a CEO’s salary increase, there is a strongest correlation amongst CEO Salary and Company Market Value, Market Value has correlation coefficient of 0.378760. CEO Salary can also be influenced by Company Profits, with a coefficient of 0.209395. Overall revenues do not appear to materially impact CEO salaries. There are some extreme outliers of massive CEO salaries tied to extremely low company profits. So, Market Value has the strongest determining factor of a high CEO Salary.

With regards to the median employee’s salary, there is no strong determining factor in what makes them increase. Based on our analysis, a company’s revenue and profit are both negatively correlated to employee pay. It appears as if median employee pay is being slightly suppressed, especially when compared to CEO Salary.