Insight on Job Openings @indeed.com

By The Stat Wars:
Ruby Ru, Carol Liu, Rebecca Wang, Elaona Lemoto, and Starry Zhou

We all had very different ideas coming into this project, but we collectively thought of using our economic interests to make some insight on this project.

As economists, after looking through the data on indeed.com, we decided to look at job postings over time since an increase in job postings could be an indicator of economic growth. When we pulled up the model for job postings over time, while it did produce an interesting polynomial regression, we just thought that could be explained by outside factors. We then thought we could look at economic indicators like unemployment rate or Producer Price Index to explain some of the variability in the data. We found data on FRED regarding PPI and the trend looked very similar to our model on jobs postings over time. While we did create a model using PPI to predict the number of job postings, we could not use the data because the units for our external data was off and looking back at the data for job postings over time, we saw that there was a jump in the data given. The line is not polynomial at all. There are actually two different lines. Because of this, we had to throw out our model and start again.

After this realization, we tried researching why there was this jump in the data. We searched on the events happening and the unemployment rate during the gap time. As there are no significant events taking place and the unemployment rate remains stable at 4.3%, we did not find any appropriate explanation for the gap. Thus, we chalked this up to a model that we could not use.

Instead, we started looking at the data again and focusing on other variables. An interesting find was made in education. Approximately 0.6% of the jobs on indeed.com, according to this data, require higher education. However, this is counter-intuitive because many jobs (e.g. engineer, computer scientist) that would seem to need at least a higher education level did not have that requirement. Research shows that 35% of job openings in the US require a bachelor's degree. Therefore, we can conclude that the educational requirement on indeed is not a reliable enough resource for data analysis on studies such as "what kinds of jobs require a higher education" because of the lack of the requirements of a more comprehensive data entry.