

Devil in the Data: Write-Up

When we were first exploring the data from Indeed, we noticed that the most common employer industry was the Healthcare/Medical industry. Doing research on the different industries in the US, we found that, overall, healthcare is one of the largest industry in the US. On top of that, healthcare is also one of the fastest growing, with eleven out of the twenty fastest growing occupations in 2016 belonging to the healthcare industry, according to the Bureau of Labor Statistics. While its growth is significant, there is also a large potential for change. It is an uncertain job market and potential for changes in the near future due to federal policy shifts. Because of these factors, we believed a closer look at the healthcare industry was necessary. While the common face of the healthcare industry is primarily made up of doctors and nurses, the data from Indeed showed that the jobs that are the most commonly posted about are those that are somewhat behind the scenes. For instance, management and administration are the two most commonly posted categories.

This led us to deeper questions of which categories, and which jobs within those categories in the healthcare industry are most prevalent on Indeed. We explored the demand for each of the top five categories in the healthcare field in each state. Population data from the U.S. census was then used to figure out the demand for each category in terms of the number of jobs posted in that category on Indeed per capita for each state. Of the many ways to calculate demand, we calculated it as the number of postings for each job over the population of each state.

We found that the five most common categories within the Healthcare/Medical field posted on Indeed were (in order) management, administration, medical nurse, sales, and service. For these five categories, we created bar graphs that show the top 5 states with the highest demand in each category, as well as a map of the demand for healthcare regardless of category for each state to look at similarities and differences between these five categories.

Vermont shows up as a state with high demand in every category, with Maine and New Hampshire showing up in most categories. We noticed an association between these three states and the general states that are most popular on Indeed when adjusted for population. Therefore, it may be more useful to look at the states that are not in the top five most popular on Indeed overall, or when filtering for the healthcare field, but do show up in the top five of the subsets: Nebraska, Kansas, and West Virginia.

Additional analysis could be done with a different metric for demand, possibly with looking at the number of healthcare jobs divided by the number of jobs for each state. This would do a better job of controlling for Indeed's popularity in each state, but a worse measurement of need relative to total population, and therefore total jobs in a state. The overlap between these metrics would indicate states that have an unusual demand for healthcare jobs specifically in the categories management, administration, medical nurse, sales, and service. Indeed could potentially use this for marketing purposes and for an understanding of who and where a large amount of the employers using Indeed are.