**DataFest** 2018\_Smith College **Team**: Thicc Data (Janelle Lin, Crystal Zang, Maggie Wang, Ha Cao, Dardalie Brooks)

Indeed, the U.S. employment search engine is responsible for matching job seekers with employers. This daunting process may be simplified through an understanding of competitiveness across employer industry and job types, along with and applicant skill level. Based on the International Standard Classification of Occupation, we categorized job into eight types major ones: Professional, Managers, Service and sales workers, Skilled workers, Elementary occupation, Technicians, Clerical support workers and Armed force. We measure competitiveness of a job post by number of applies over all the job openings (number of applications per job opening). Applicant skill level was defined as education level as required by the job posting (Higher education, high school diploma or no education requirement), along with license requirement.

## Insights

It's important for the job seekers to understand what are the characteristics of recruiters on Indeed. Most companies posting on Indeed are small size, 0-49 people. Among all the methods of job postings, we compared the two majority categories: direct and third party hiring, and we found out except for Staffing Industry, most are from recruiters are from direct employers. Our insite for job seekers is that they are able to have direct contact with Indeed. Also, based on the trend from the recruiting season, which is very high in winter, it's important for them to apply early for the recruiting season.

Running with the theme and definition of competitiveness, we saw that number of applies per job opening is consistent over the eighth job types. Among the applicants, about 50% are reviewed by recruiters. We conclude that the competitiveness among all the job types is high. Along with the competitiveness, we explored the amount of candidates reviewed as a function of job post age. A plot of these data revealed a steady decline in candidates reviewed as job post age increased. Because the competitiveness, we suggest job seekers to apply early, especially to the jobs posted within two weeks.

Further insights on the education level and license. We compared three education levels' competitiveness with having a license. Having a license does not alter the competitiveness for high school education and higher education. But for applicants who do not have education, having a license increase the competitiveness which is defined by us: number of application per job posts. By investigating supervised jobs, among applicants who do not have education, there are significantly more of them have a license. The take away from these analyses would be getting a license is most beneficial for people applying to the jobs with no education requirements especially supervising jobs.