

We Don't Work in a Vacuum

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Employment is a very personal process. In fact, there are many external factors that influence whether or not an employer gets the applicants they are looking for.

Figure 1: Lifetime of a job

Firstly, we present generalized additive model for both the number of applications and the number of candidates reviewed for each individual job, across days within the listing's age.

There is a drop in both numbers of applicants and candidates reviewed after approximately two weeks, which we consider a reflection of the "effective lifetime" of a job on the website. In short, if a job listing doesn't get the number of applications that the employer is looking for, they might be out of luck.

This also indicates that competitiveness to apply and review may be highest within the first few weeks of a job's listing on Indeed. In our exploration of this idea, we considered other factors relevant to competitiveness.

Figure 2: Competitiveness within Industries

This bar graph represents competitiveness as a measure of applications per individual job for each of the industries categorized in the data. For simplicity, we are only presenting our sample of the fuller plot; we show here the five industries of highest competitiveness, and the five industries of lowest competitiveness.

Figure 3: Job Availability per State

Here we show a map of job availability by state in the US as represented by the job listings per capita, using state populations. The northeast and upper midwest have higher job availability; this was also reflected in the rightside map of applications per state.

The applications follow job availability; from this we can derive that location is another factor of influence on whether jobs listed will receive substantial numbers of applicants.

Figure 4: Postings and Unemployment

Finally, we show a three-part graph of unemployment, job availability, and number of applications over time and see that they are very related.