Methodology
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Indeed is a job search engine which gives job seekers access to millions of jobs from all over the Web, not just jobs with employers that advertise directly with Indeed. As of July 2018, 3.2 million job postings were added per month on Indeed in the US.

According to media measurement firm comScore, 70% of US online job seekers search for jobs on Indeed (comScore, Unique Visitors, August 2017). In the US, Indeed has 59.6 million unique visitors per month (comScore, Unique Visitors, June 2018). There are over 50 million searchable resumes on Indeed in the US, with about 3 million added each month.

In this analysis, job seekers who have uploaded resumes on Indeed represent the supply of labor. Demand for labor comes from employer job postings. Rather than focusing on the *quantities,* we look here at the *distribution* of job postings and job seekers.

Our analysis focuses on aggregated and anonymized data on US job openings and resumes posted on Indeed between January 2014 and July 2018. Employers use hundreds of thousands of different variations of job titles to describe their roles. Our analysis is organized around a fixed set of 6065 normalized job titles. We've also looked at broader occupational categories and the patterns are similar. We apply the same rules to all job postings in our sample to have a consistent set of titles to compare over time.

The data is organized as monthly counts of job postings and resumes that have been mapped to one of the 6065 normalized titles used in our analysis. We did not include resumes or job postings when the job title did not map to a normalized title.

We compare the mix of job titles in postings monthly over time to the mix of job titles in January 2014. We've looked at other comparison months and the results are similar. Using a dissimilarity index we find a score of 0.238 in January of 2018, which means that 23.8% of the jobs then would need to be changed for the distribution of jobs to be the same as in January 2014. For our dissimilarity measure, it is the absolute difference that matters, meaning we give equal weight to titles for which shares are growing or shrinking.

Job opportunities overall have grown in the economy over the past few years. A decline in shares does not mean an absolute decline in the number of job opportunities. Rather, a decline in share indicates a smaller *share* of job postings with that normalized title. Job postings represent new employment opportunities, capturing both turnover and growth in the labor market. They do not necessarily directly track employment trends.

We use the most recent job title for each resume and count a resume in the month it was most recently updated. We only have the latest resume for a job seeker, which means that if someone posted a resume in 2014 and then updated it in 2017, we only count that job seeker in 2017.

Consequently, we have many more observations in 2018 than in earlier years and focus on the end of the sample in our analysis. A job seeker can be currently employed or unemployed. Trends are similar when we limit to unemployed job seekers.

Our dissimilarity measure is the Duncan and Duncan dissimilarity index. For an application of this index to publicly available data, see Lazear and Spletzer's The United States labor market: Status quo or a new normal?) :

$$\frac{1}{2}\sum_i \left|\frac{x_i}{X} - \frac{y_i}{Y}\right|,$$

where for the jobs mix and job seeker mix analysis $\frac{y_i}{Y}$ is share of job postings or job seeker in category *i* in the reference period and $\frac{x_i}{X}$ is share of job postings or job seekers in category *i* in the current period. For mismatch, $\frac{y_i}{Y}$ is share of job postings in category *i* in the current period and $\frac{x_i}{X}$ is share of job seekers in category *i* in the current period.