Analyzing LinkedIn Data: Insights into Remote Work, Job Trends, and Hiring Dynamics

How Has the Increase in Remote Jobs Shifted Online Job Markets Like LinkedIn?

Story:
This data is webscraped data from LinkedIn and has a vast amount of data on Jobs, including company, estimated salary, number of applicants/online views, and if the job is remote, among other columns. There is a clear disparity between the online traction towards remote jobs, especiially as we have come out of the COVID-19 Pandemic in recent years. This poster aims to answer the question of "How Are Remote Jobs impacting Online Job Markets?", while also getting a better understanding of what job factors push LinkedIN's algorithm.

### Motivation:
As a current Junior, I am beginning to search for Summer Internships, and will soon be in the Job Hunt, along with thousands of other college graduates. This dataset has helped me explore the competitiveness of online Job Markets, such as LinkedIn, and can use this data to query for the right jobs ef ciently and increase my chances of landing a job right out of college. This data is for all people who use Online Job Search websites, such as LinkedIN, and want to get a leg up on other applicants with added knowledge of the market.

Dataset:
This Dataset was found on kaggle and has 124,000 rows, and 30 columns, along with 8 other smaller datasets, of which 2 I used to get 3 columns of company info. Due to it being web scraped, a good majority of the data had null values, and columns that needed functions such as datetime or a salary function to get standardized data. Most of my visuals were formed by aggregating and subsetting the data to examine key indicxator columns.
Kaggle Dataset: www.kaggle.com/datasets/arshkon/linkedin-job-postings
R Packages Used: tidyverse, alluvial, treemapify, tigris, tidycensus, usmap, maps, scales, tm, tidyr, lubridate

Remote Jobs, Experience Levels, and Pay Periods Colored by Salary

Expected Salary
- < $55,000
- < $85,000
- < $125,000
- > $125,000
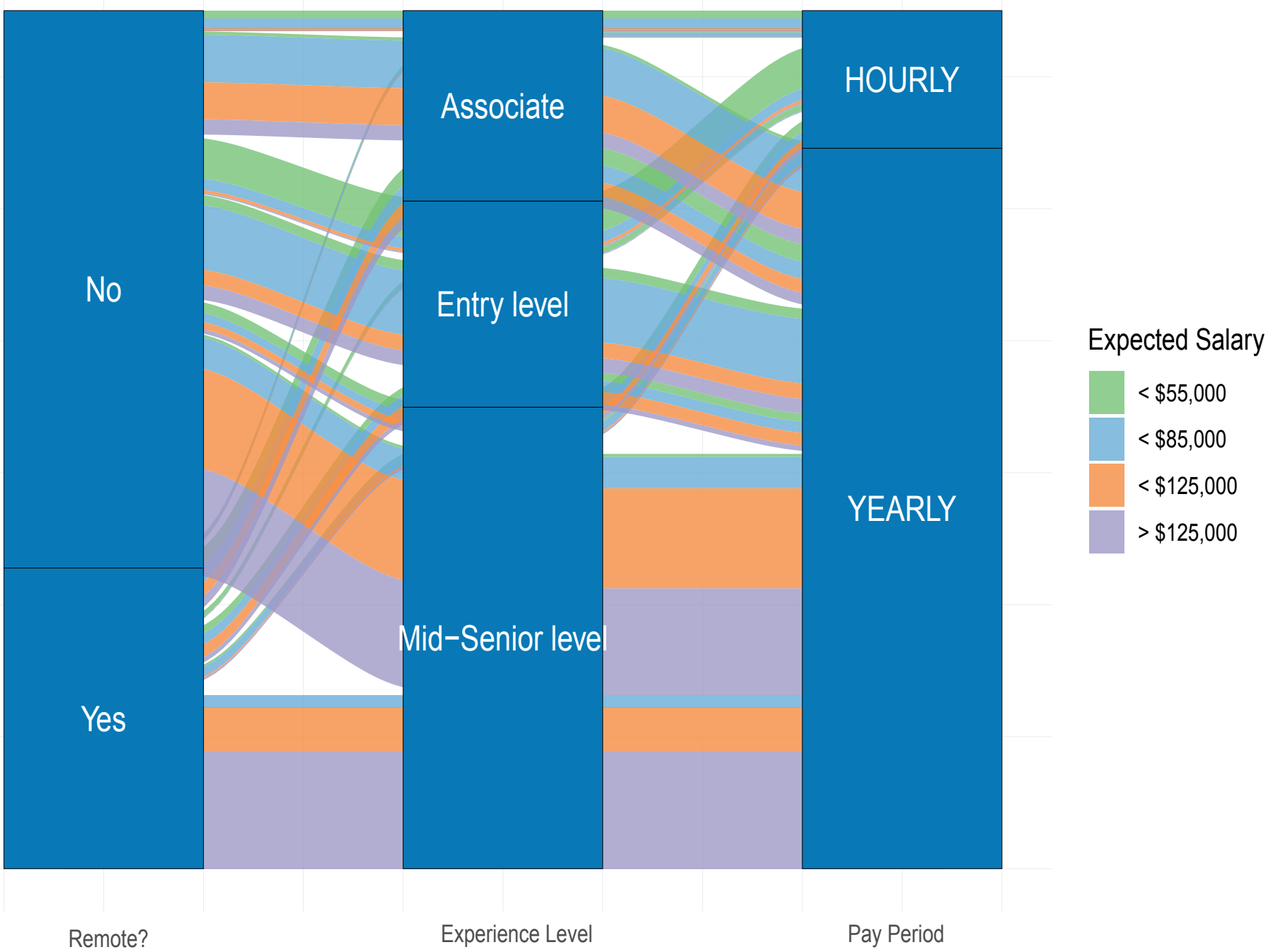
The data suggests that a majority of the Online Jobs are getting paid more than $125,000 per year, while in person jobs have a greater salary range. In addition, these remote positions also require a higher level of experience, suggesting these jobs are for more skilled applicants. These could be reasons why these jobs are viewed more, have more applicants, and are more competitive.
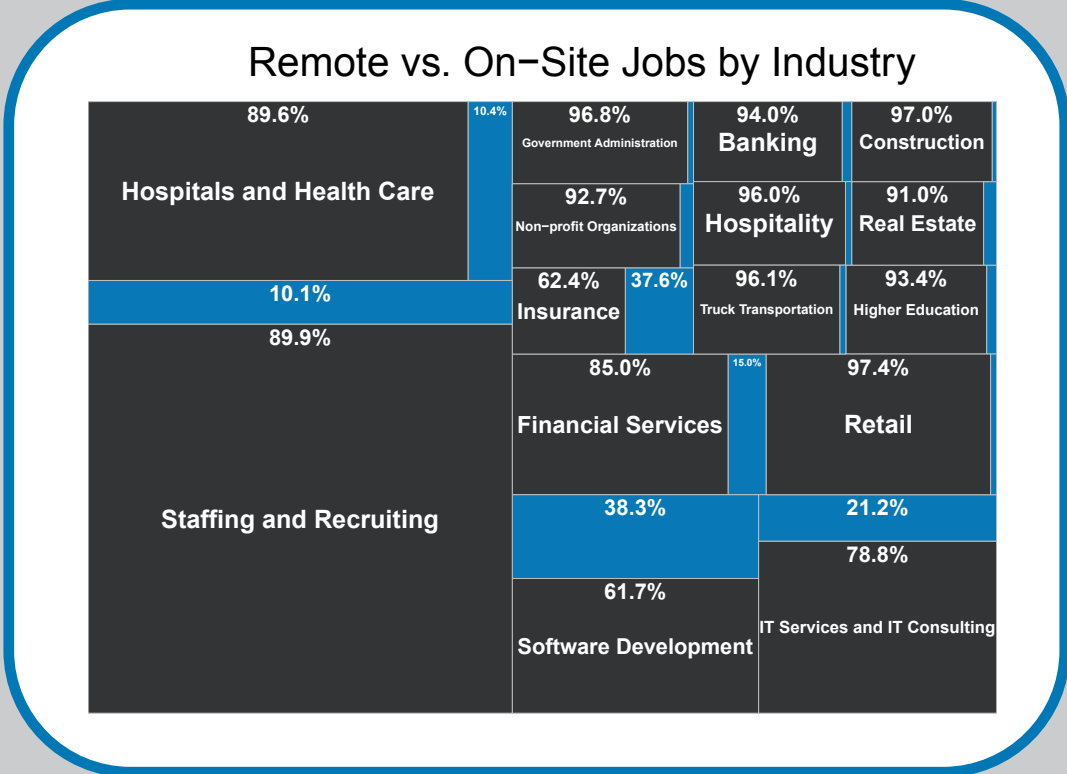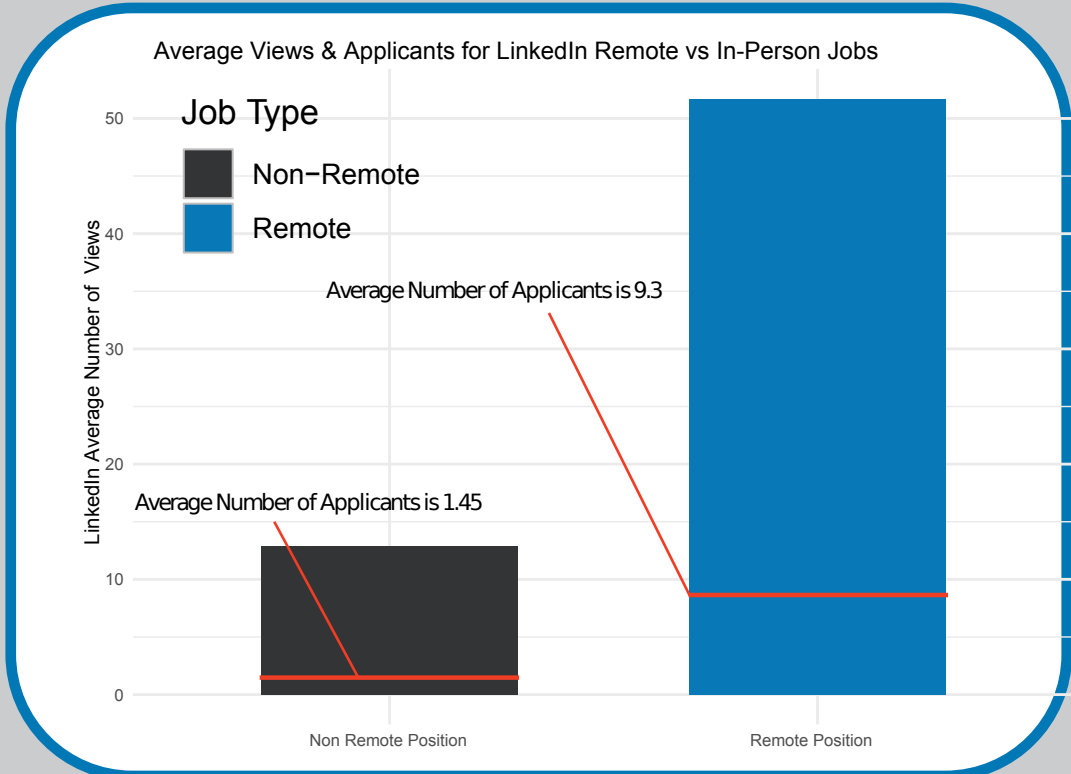

What are the key factors driving the shift in remote job opportunities, and how do industry type, experience level, and geographical location inf uence these trends?

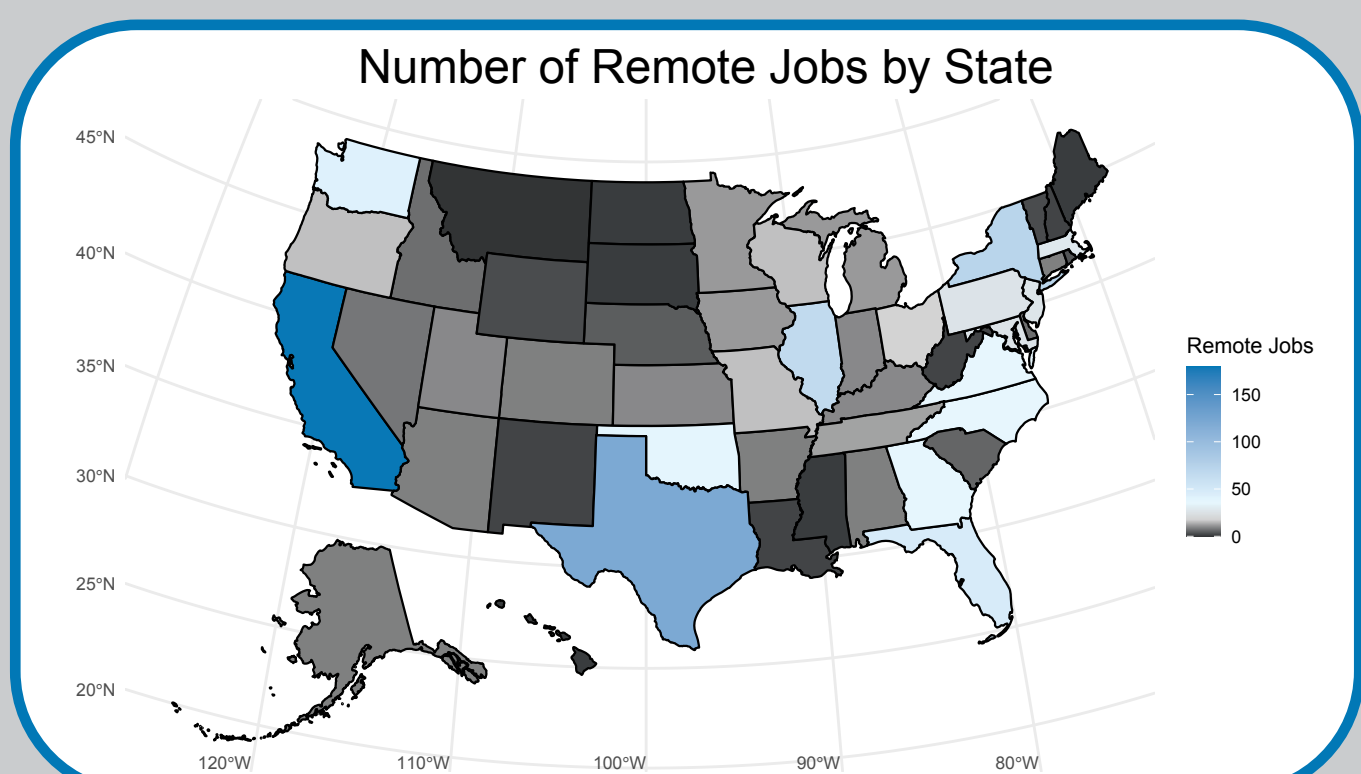### Remote Jobs have 302% Increase in Online Views

This shows just how much more competitive remote jobs as people can work across the country.

This Word Cloud shows which job titles were most prominently seen on this LinkedIN web scraped data. This is great news for students who want to be engineers or managers in their near future!!

Staffing & Recruting Most Popular Job

Mean Views of Job Postings Based on Company Employees and LinkedIN Followers

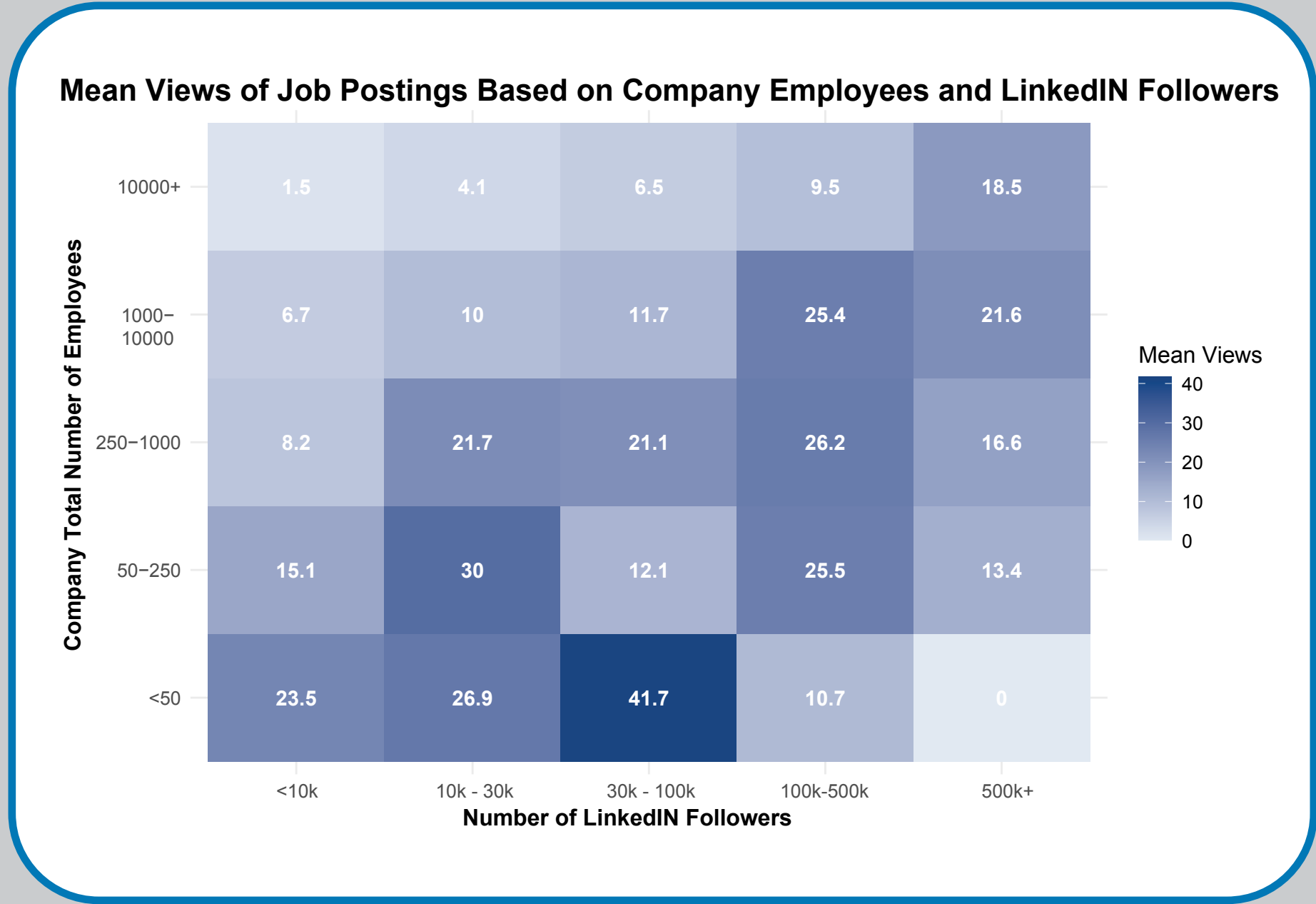### California, Texas, & New York w/ Most Remote Jobs

IT, Software Development, Financial Services, and Insurance positions are most likely to be online. This may be because these roles already require employees to work in an online environment.

Managers, Engineers, & Analysts w/ Most LinkedIn Openings

Number of Remote Jobs by State

This map shows that the most populated states, have the most remote positions posted. This is not a suprised as these states have large cities such as Los Angeles, Houston, Chicago, and New York City driving the job market. This could be helpful information to students or job seekers who are in a gray state, as they can set their location to a major city for a remote job.

Limitations:
This dataset is limited to only scraped LinkedIn website data over a two week span of April 2024. In addition, a lot of the rows were deleted due to Null values, thus this is not a fully accurate representation of the Job Market. Future research and added data would be helpful in solidifying results of US Job Market Data.

Conclusions:
Students should use the trends in this data when applying for jobs right out of college, especially when looking at where they want to work, what position they will have, and what industry they go in. The data suggests that Job Market needs more managers and engineers, and the Staf ng/Recruiting industry has plentiful amount of jobs. Remote jobs of er higher pay, but require a higher starting experience level and are generally more comeptitive as more people can apply, decreasing your odds you will be the perfect candidate. Students should look for jobs in person, with smaller companies, as this is the lowest ratio of applies to views.

IST 421 M001
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December 6, 2024
Final Poster IST 421