

# Analysis of H1B Visa Applicants

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Group Number: 14

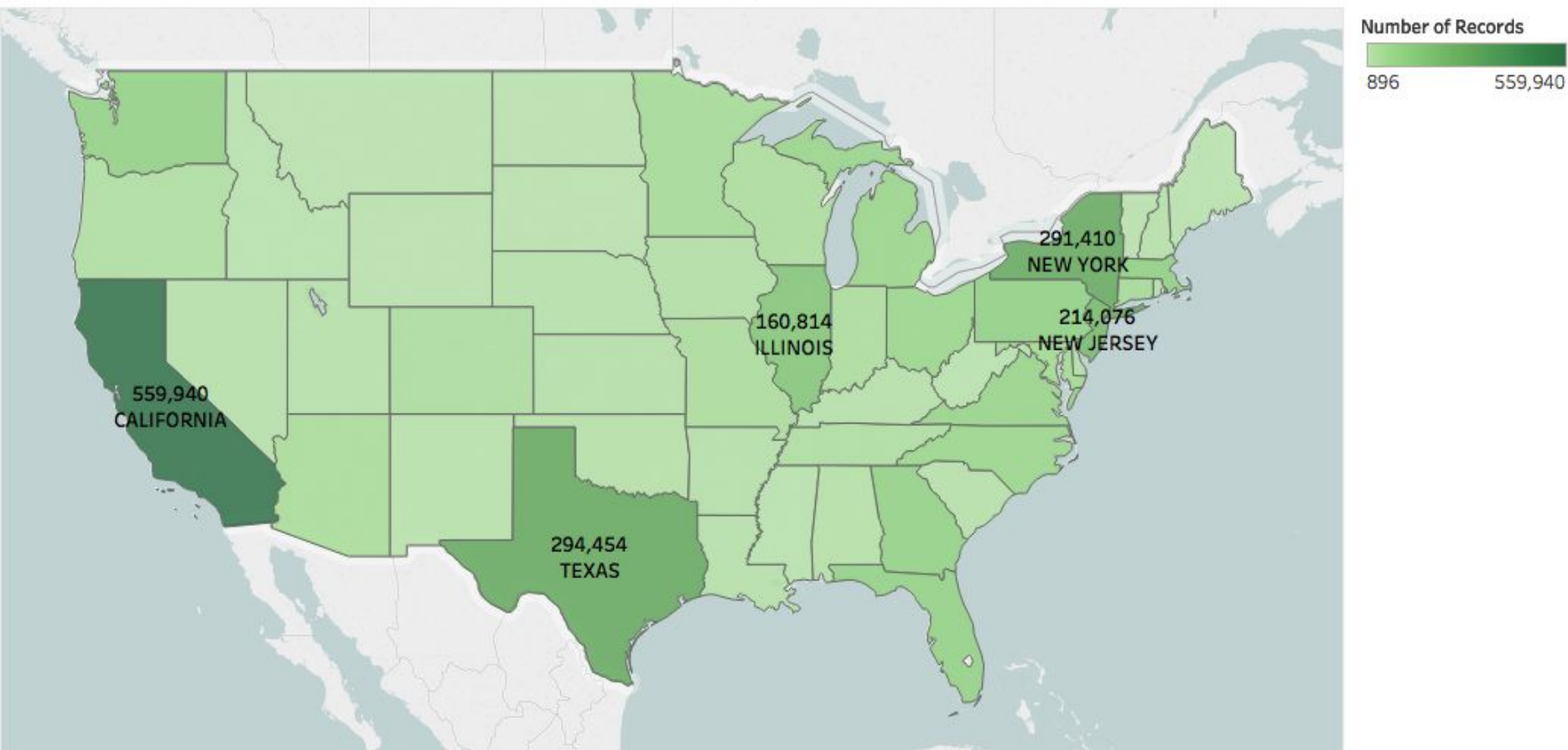


# Data Cleaning

- Removed outliers (prevailing wage top and bottom .01%)
- Cleaned job title names
- Removed case-sensitivity

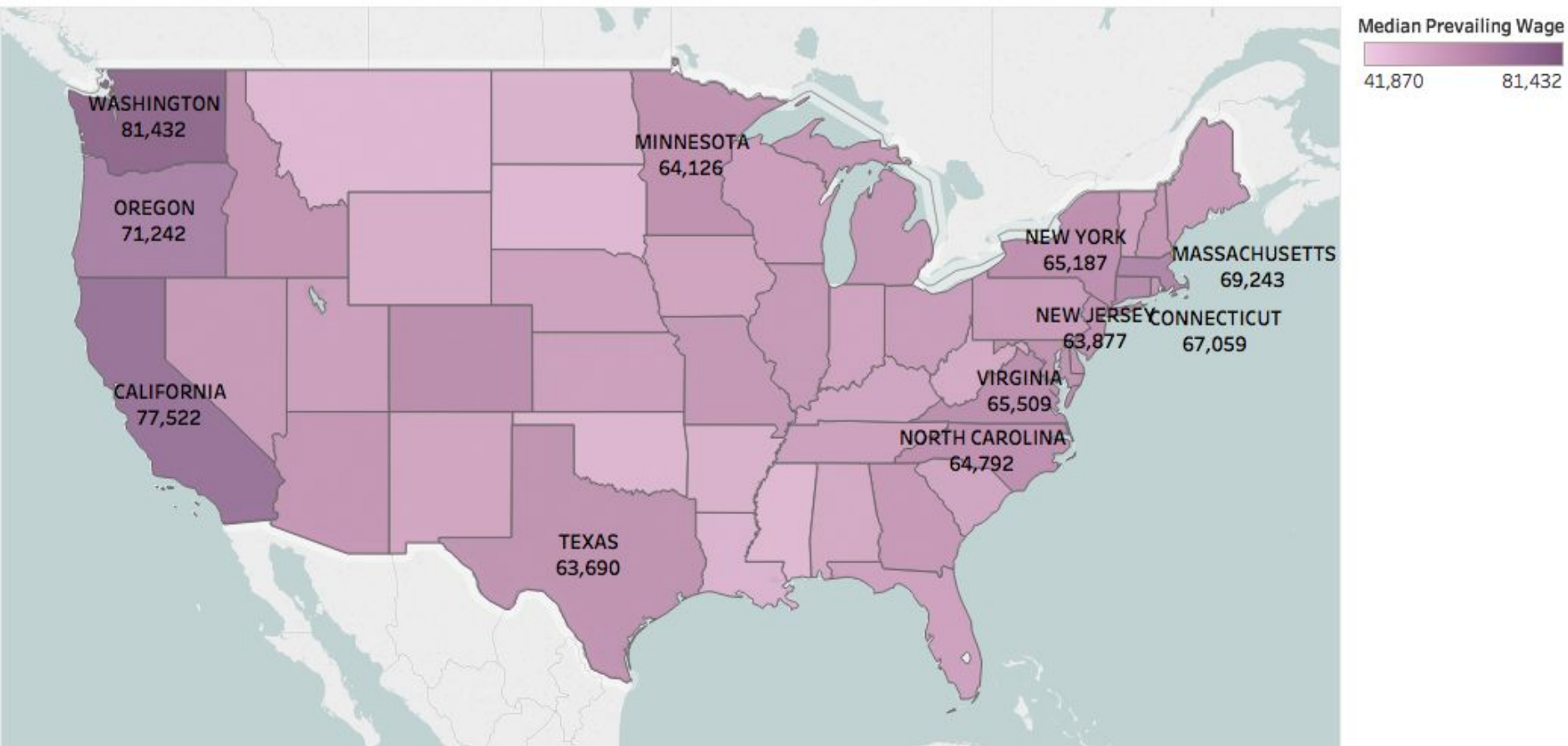
Where are H1B visa sponsors located?

## Numbers of H1b by state



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Number of Records. The marks are labeled by sum of Number of Records and Worksite - State. Details are shown for Worksite - State. The data is filtered on Year, which excludes Null. The view is filtered on Latitude (generated), Longitude (generated) and Worksite - State. The Latitude (generated) filter keeps non-Null values only. The Longitude (generated) filter keeps non-Null

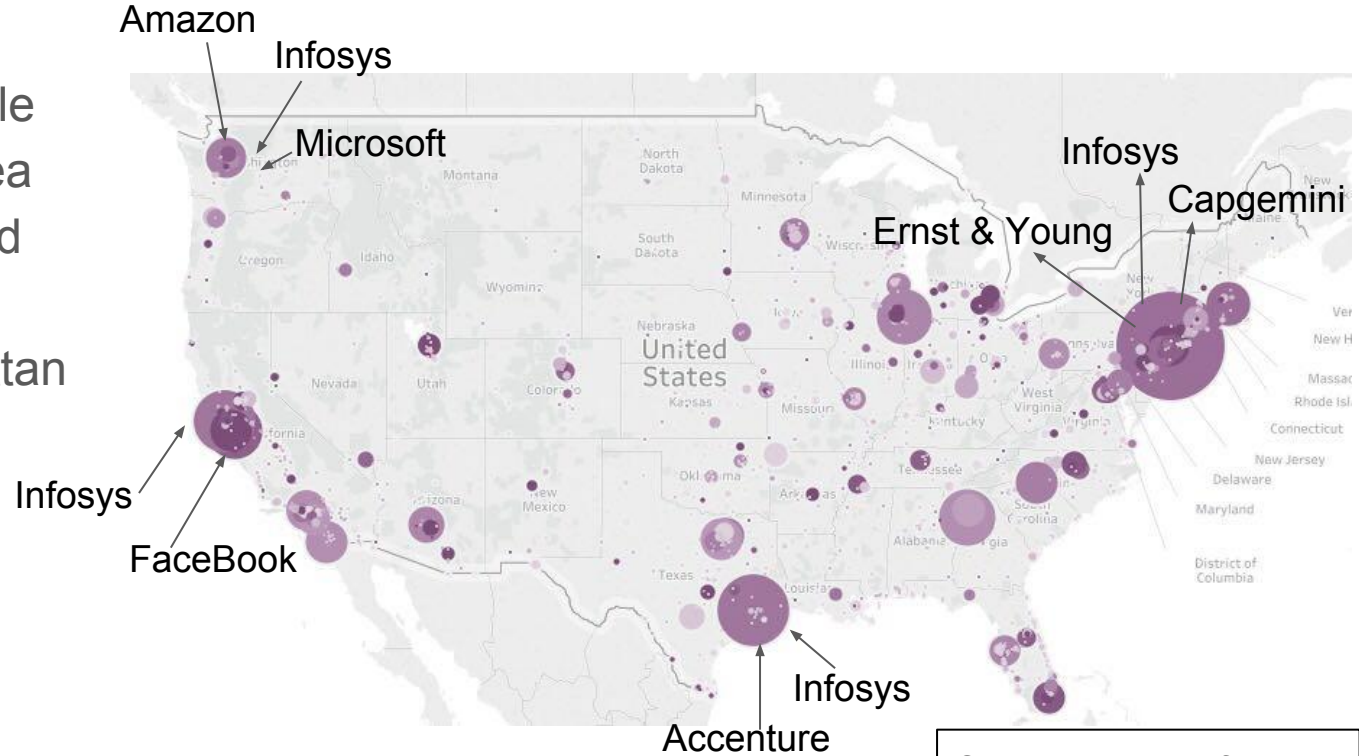
## Median prevailing salaries of H1b by state



Map based on Longitude (generated) and Latitude (generated). Color shows median of Prevailing Wage. The marks are labeled by Worksite - State and median of Prevailing Wage. Details are shown for Worksite - State. The data is filtered on Year, which has multiple members selected. The view is filtered on Latitude (generated), Longitude (generated) and Worksite - State. The Latitude (generated) filter keeps non-Null values only. The Longitude (generated)

# City

- Washington - Seattle
- California - Bay Area
- Texas- Houston and Dallas
- New York - Manhattan

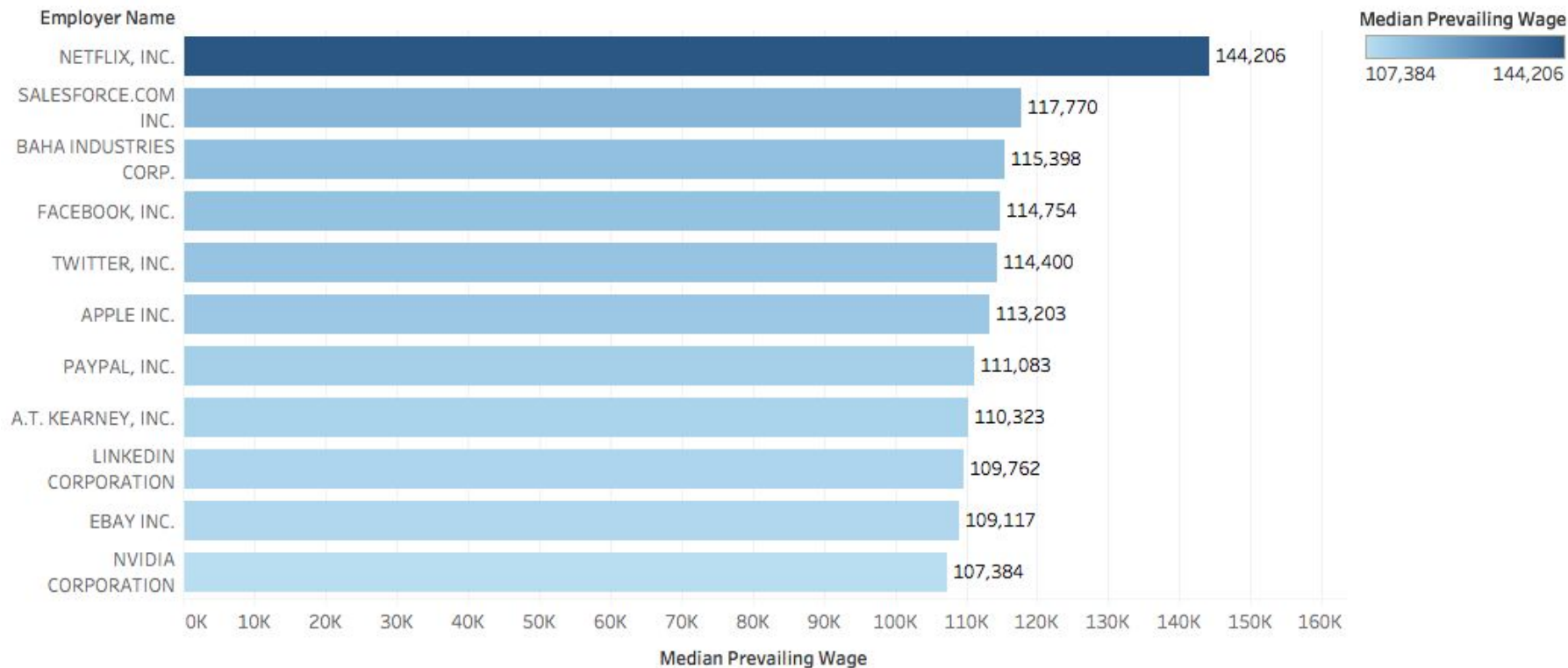


Size= number of apps  
Color = median salary

Show me the money!!



## Companies with highest median prevailing wages

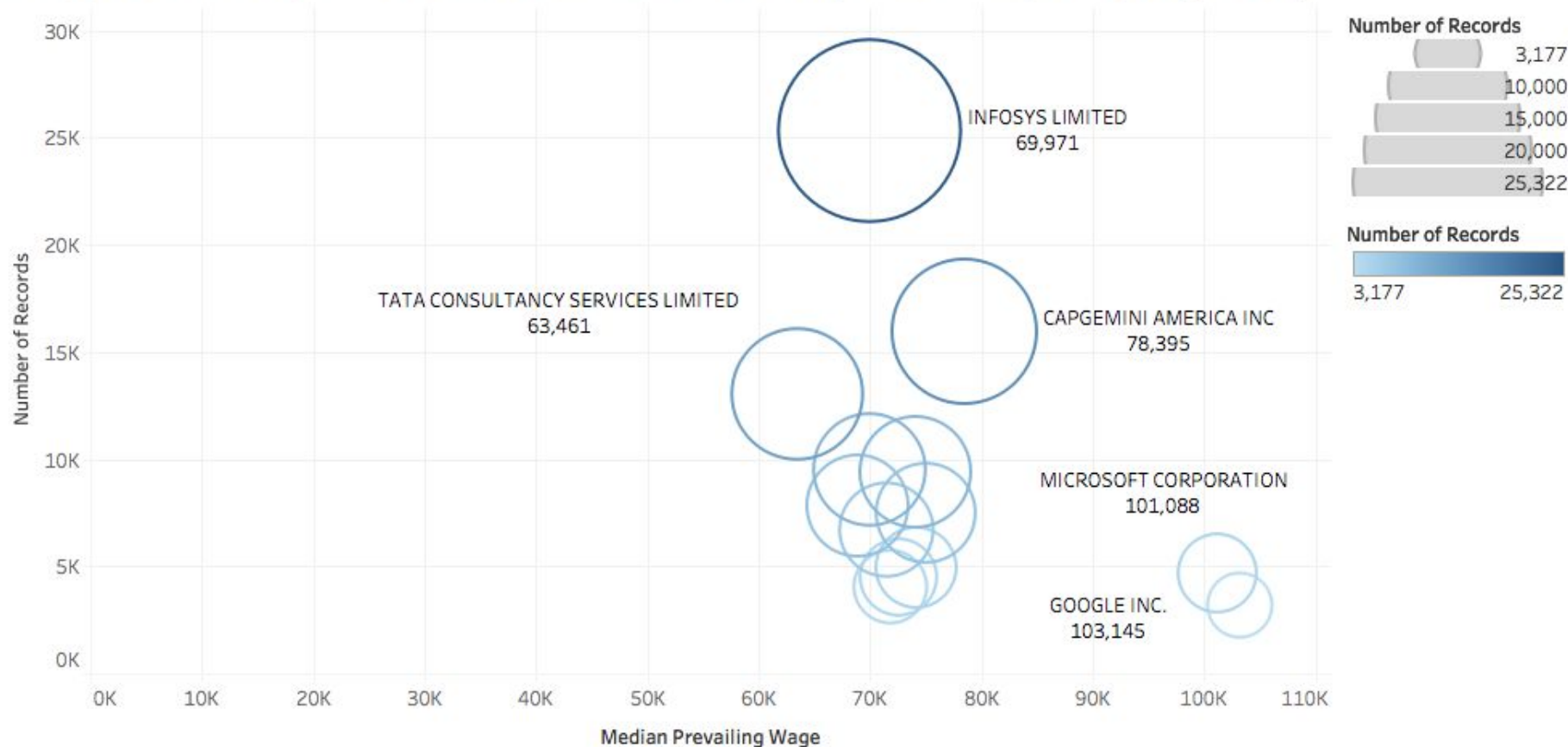


Median of Prevailing Wage for each Employer Name. Color shows median of Prevailing Wage. The marks are labeled by median of Prevailing Wage. The data is filtered on count of Number of Records, which ranges from 500 to 130,592. The view is filtered on Employer Name, which keeps 11 of 236,015 members.



But, who is going to sponsor me?

# Biggest H1b sponsors and their median prevailing wages(2016)



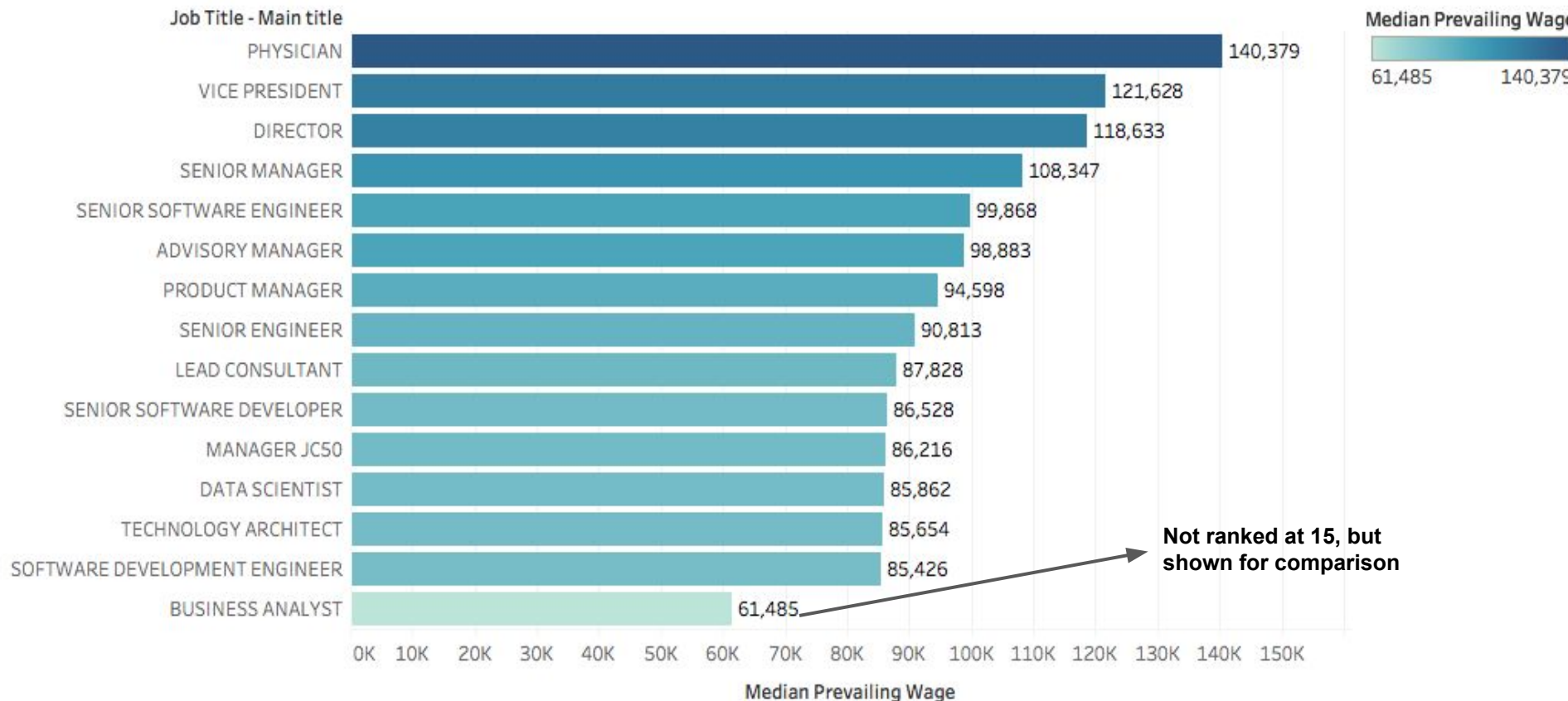
Median of Prevailing Wage vs. sum of Number of Records. Color shows sum of Number of Records. Size shows sum of Number of Records. The marks are labeled by Employer Name and median of Prevailing Wage. The data is filtered on Case Status, count of Prevailing Wage and Year. The Case Status filter keeps CERTIFIED. The count of Prevailing Wage filter includes values greater than or equal to 3,000. The Year filter keeps 2016.

# What are the most common occupations for international employees?



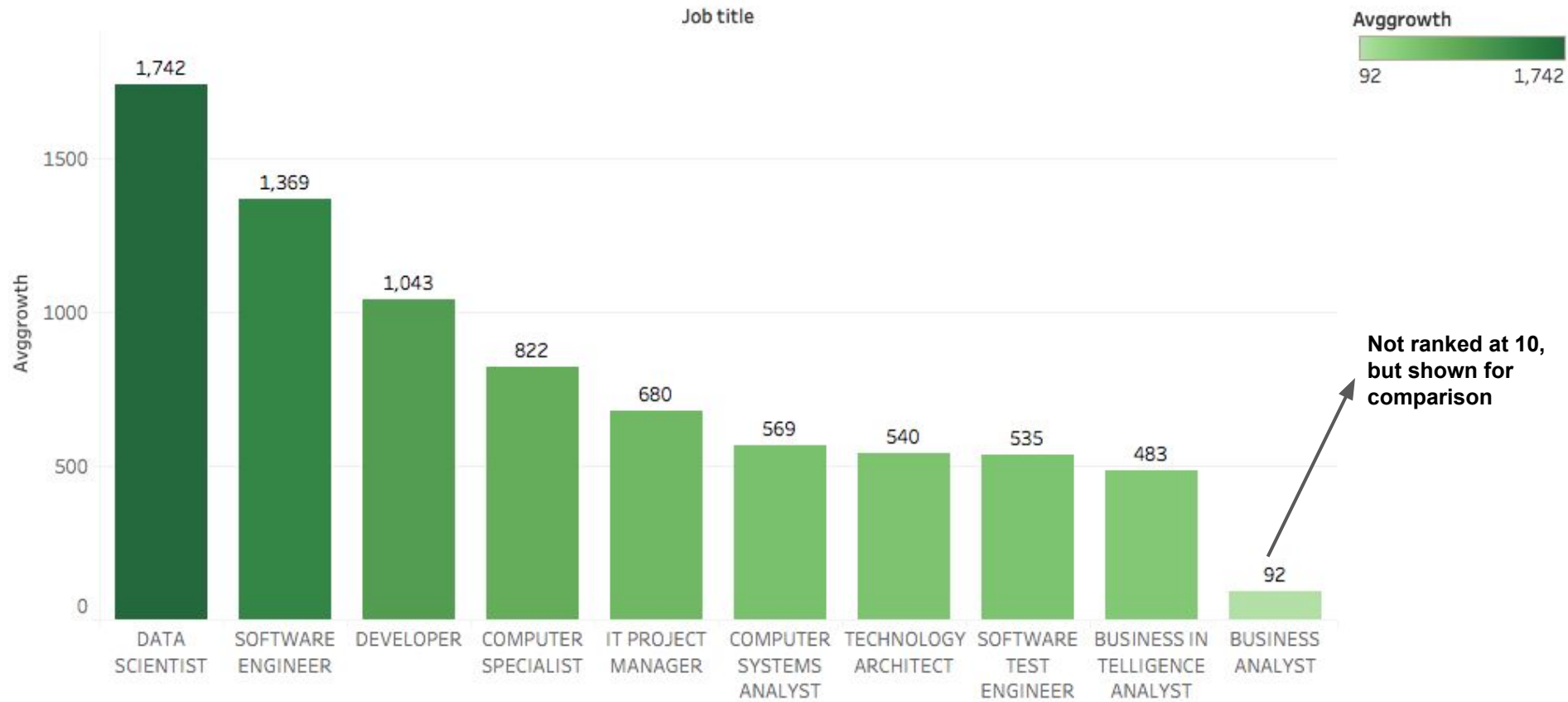
- All of the most common jobs are in the STEM field

# Job titles with high median prevailing wages in 2016



Median of Prevailing Wage for each Job Title - Main title. Color shows median of Prevailing Wage. The marks are labeled by median of Prevailing Wage. The data is filtered on Year and sum of Number of Records. The Year filter keeps 2016. The sum of Number of Records filter ranges from 900 to 55,340. The view is filtered on Job Title - Main title, which keeps 15 of 213,044 members.

# Fastest growing job titles in past few years (%)

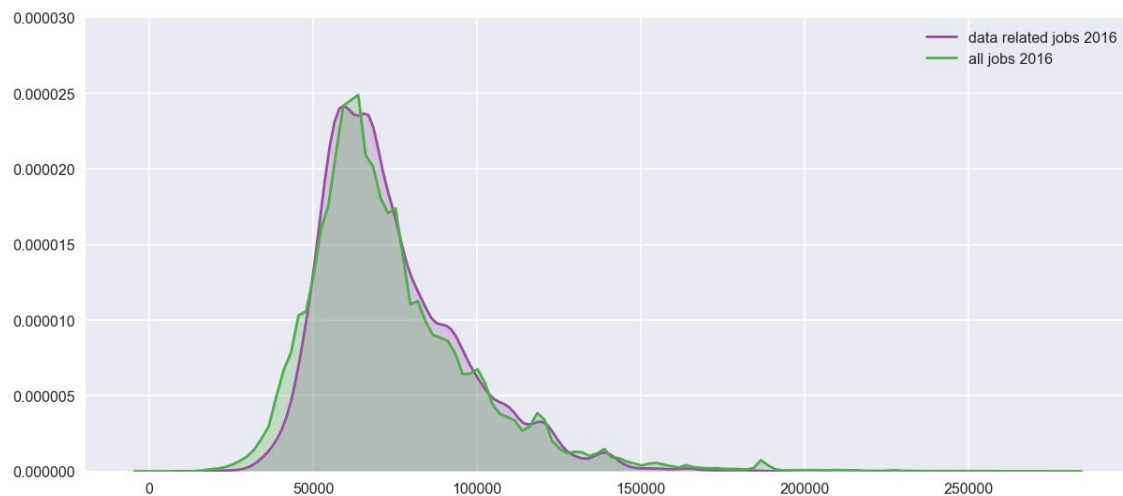
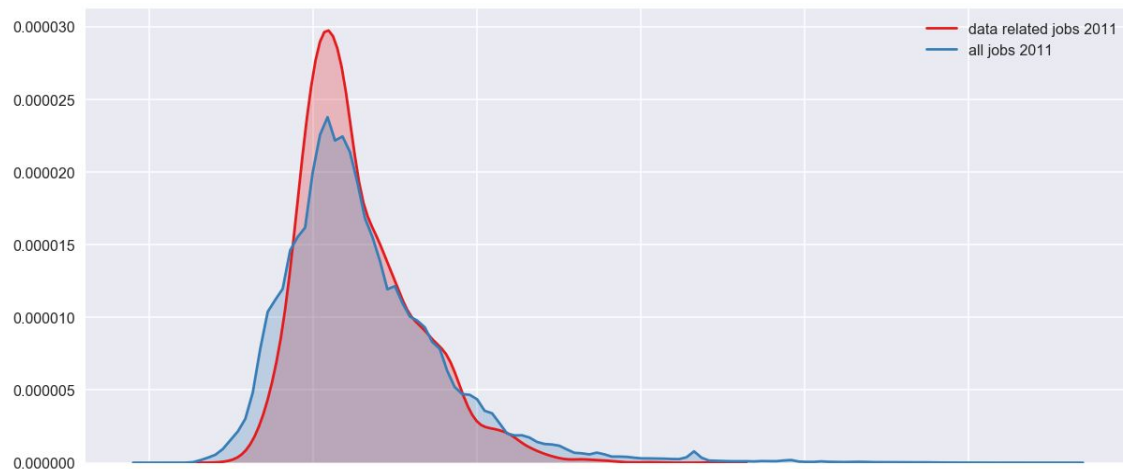


Sum of Avggrowth for each Job title. Color shows sum of Avggrowth. The marks are labeled by sum of Avggrowth. The view is filtered on Job title, which excludes ADVISORY MANAGER, DATA ANALYST, SOLUTION ARCHITECT and TECHNICAL TEST LEAD.

Let's focus in on data roles...

# Jobs in Data

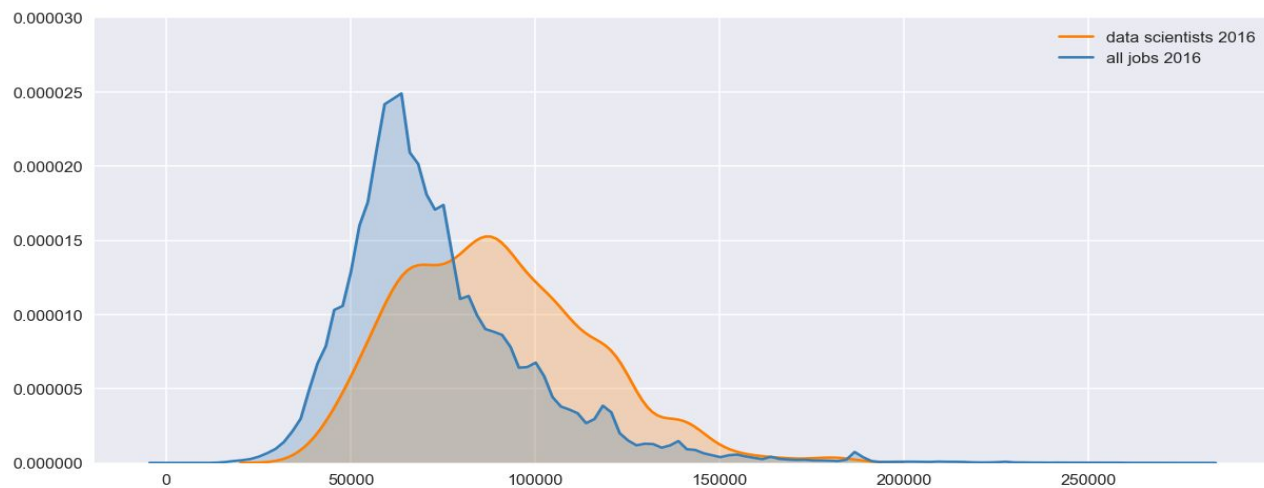
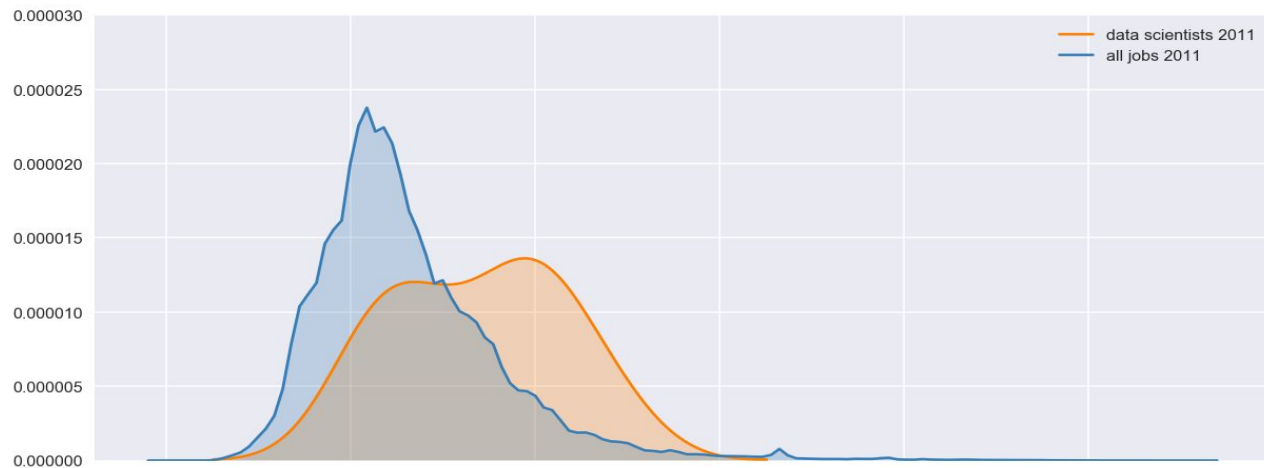
- Employees working in data still earn slightly more in 2016, but the gap is closing
- Companies are less likely to pay such a premium to hire someone working in entry-level and middle-level data related jobs



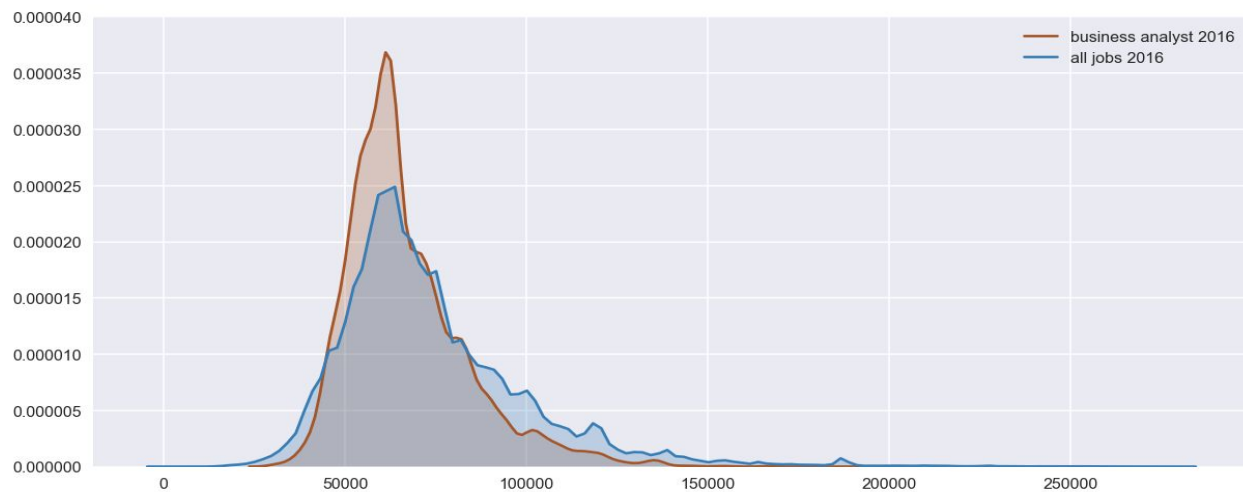
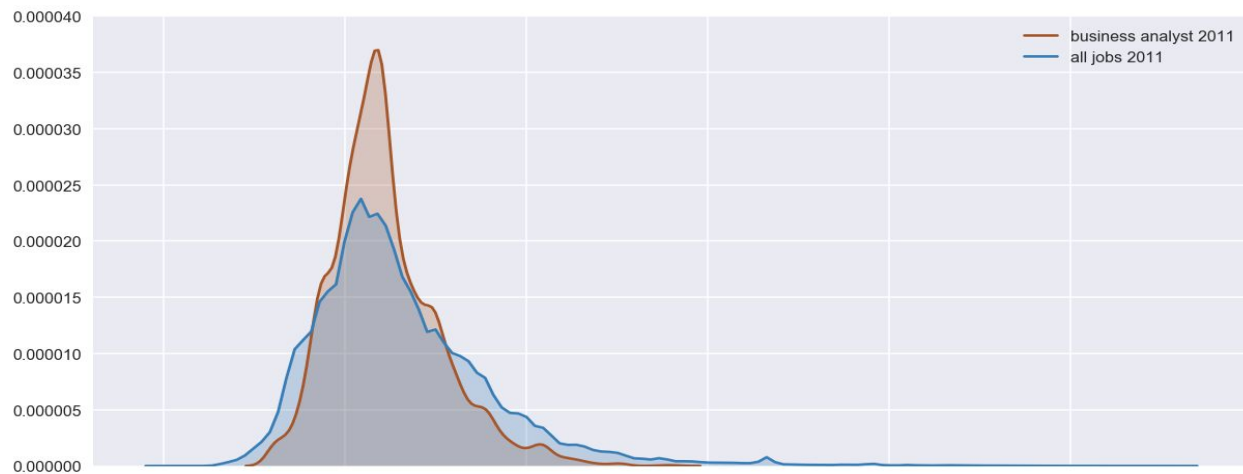


But it's not all bad news!

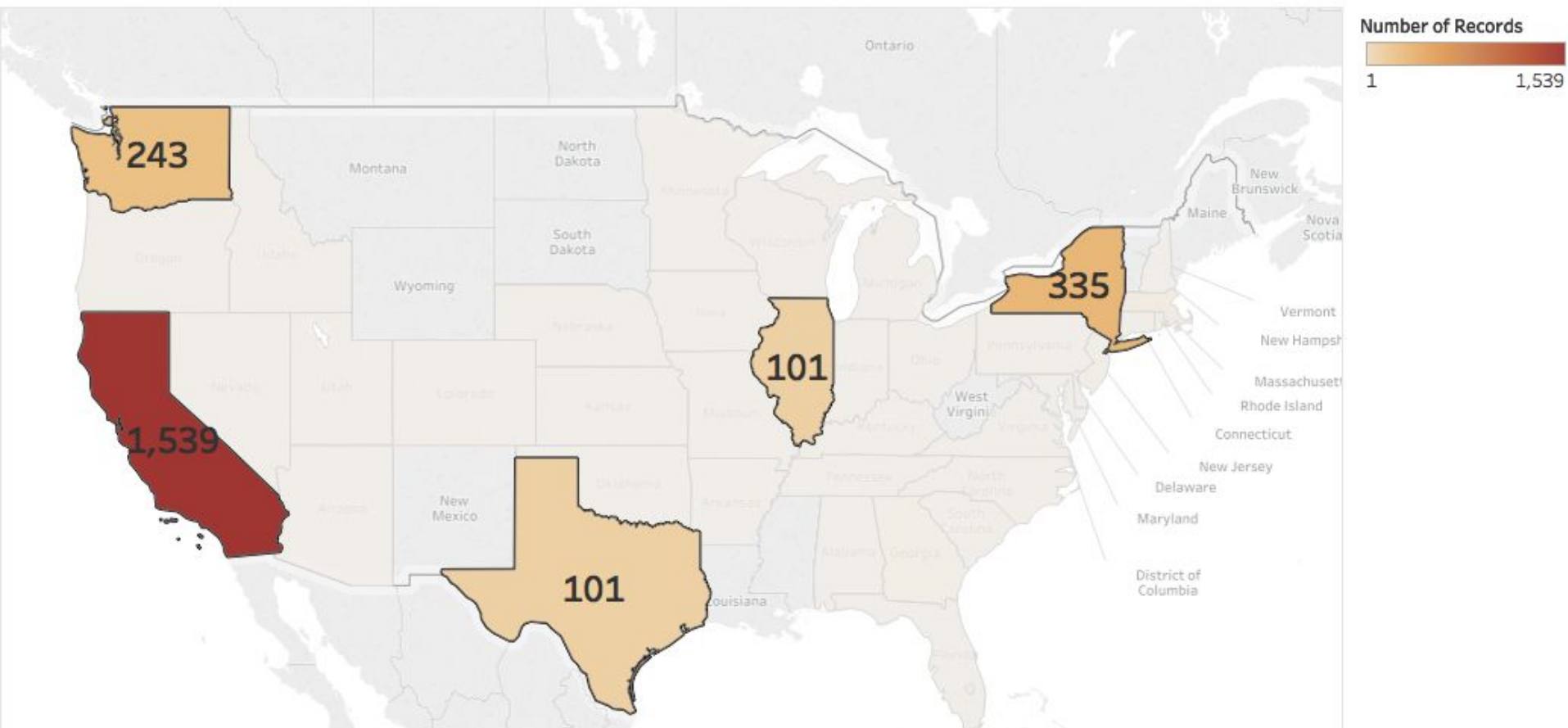
# Data Scientist Distribution Wage from 2011-2016



# Business Analyst Wage Distribution from 2011-2016

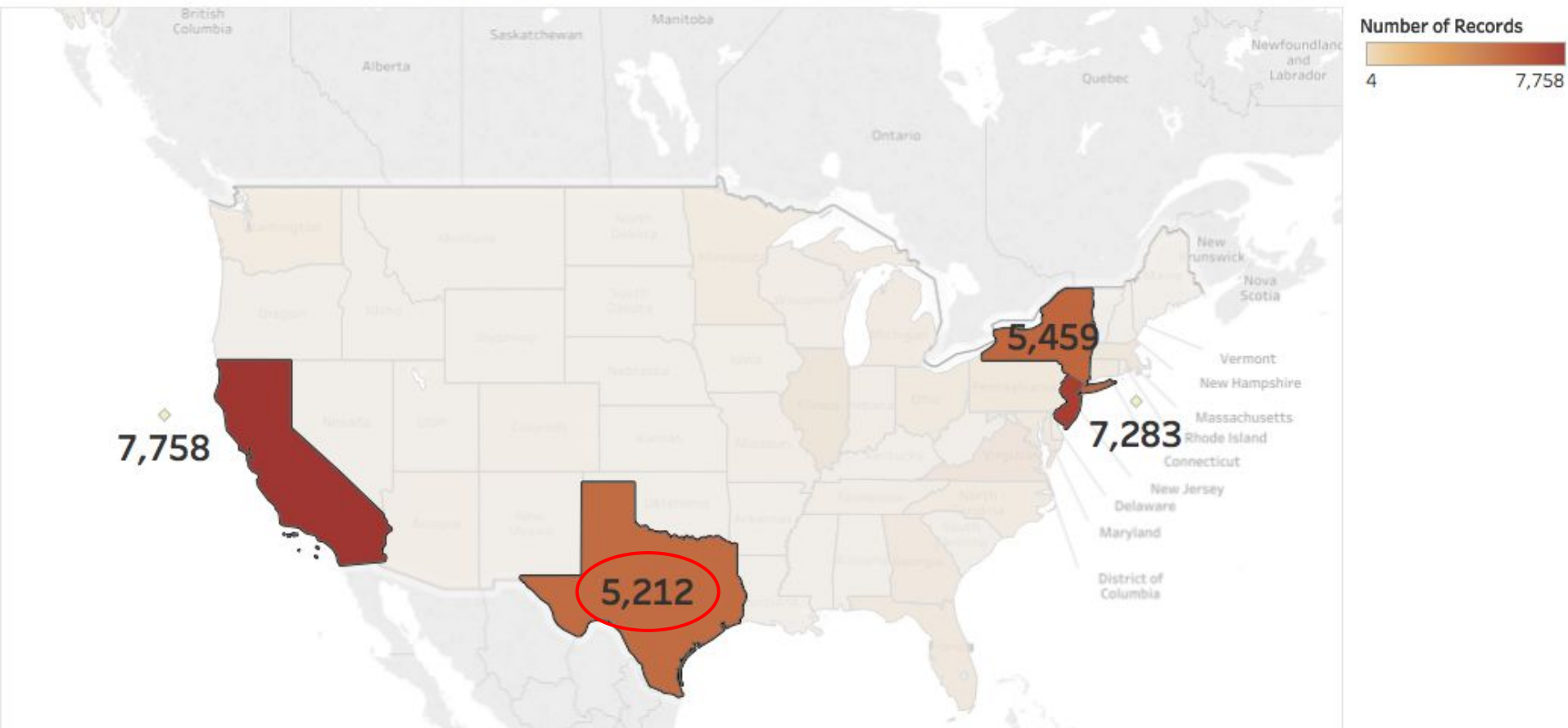


# Top Data Scientist Spots



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Number of Records. The marks are labeled by sum of Number of Records. Details are shown for Worksite - State. The data is filtered on Job Title - Main title, which keeps 225 of 213,044 members.

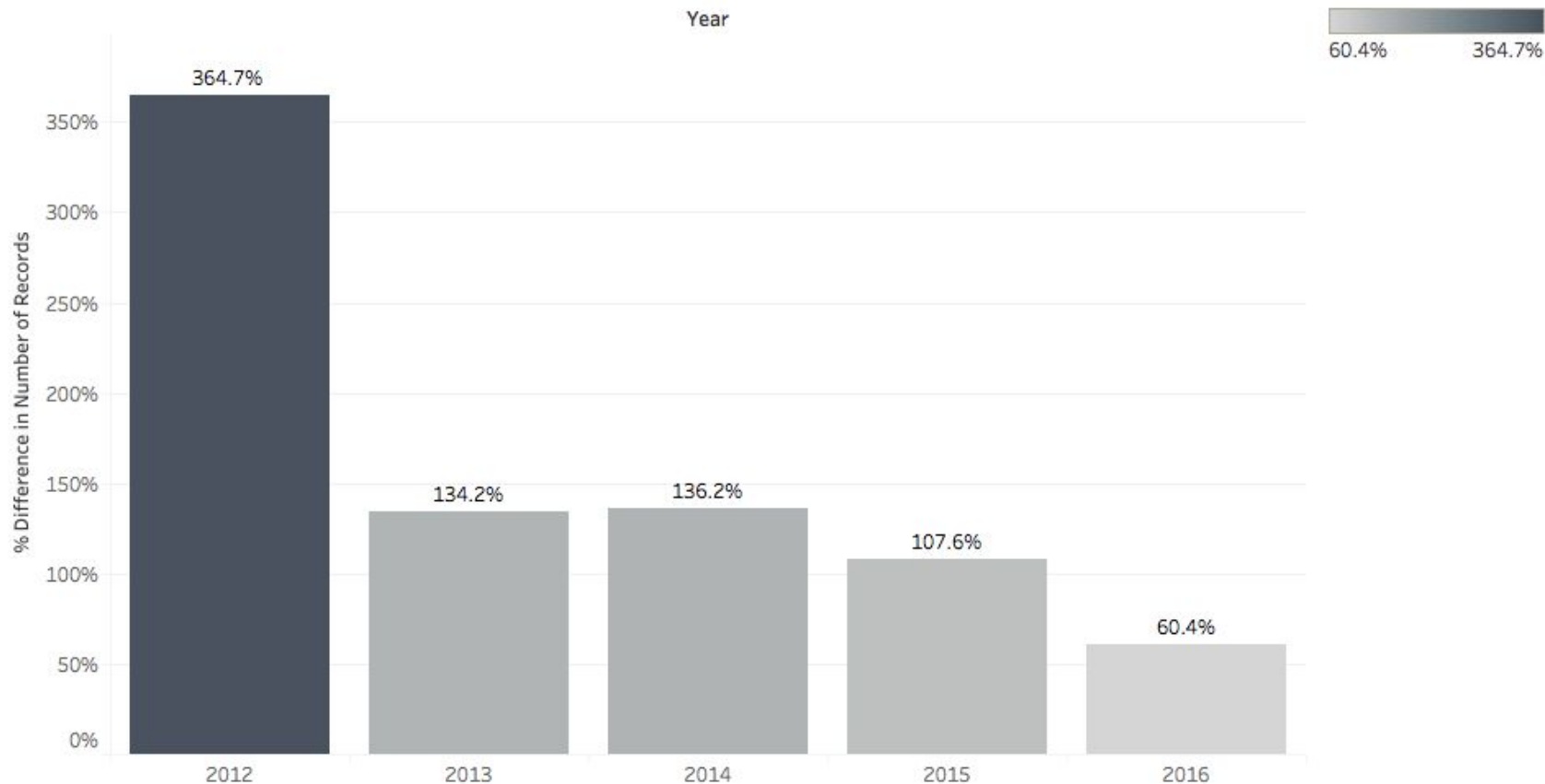
# Top Business Analyst Spots



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Number of Records. The marks are labeled by sum of Number of Records. Details are shown for Worksite - State. The data is filtered on Job Title - Main title, which keeps 2,241 of 213,044 members.

What can my career look like as a data scientist?

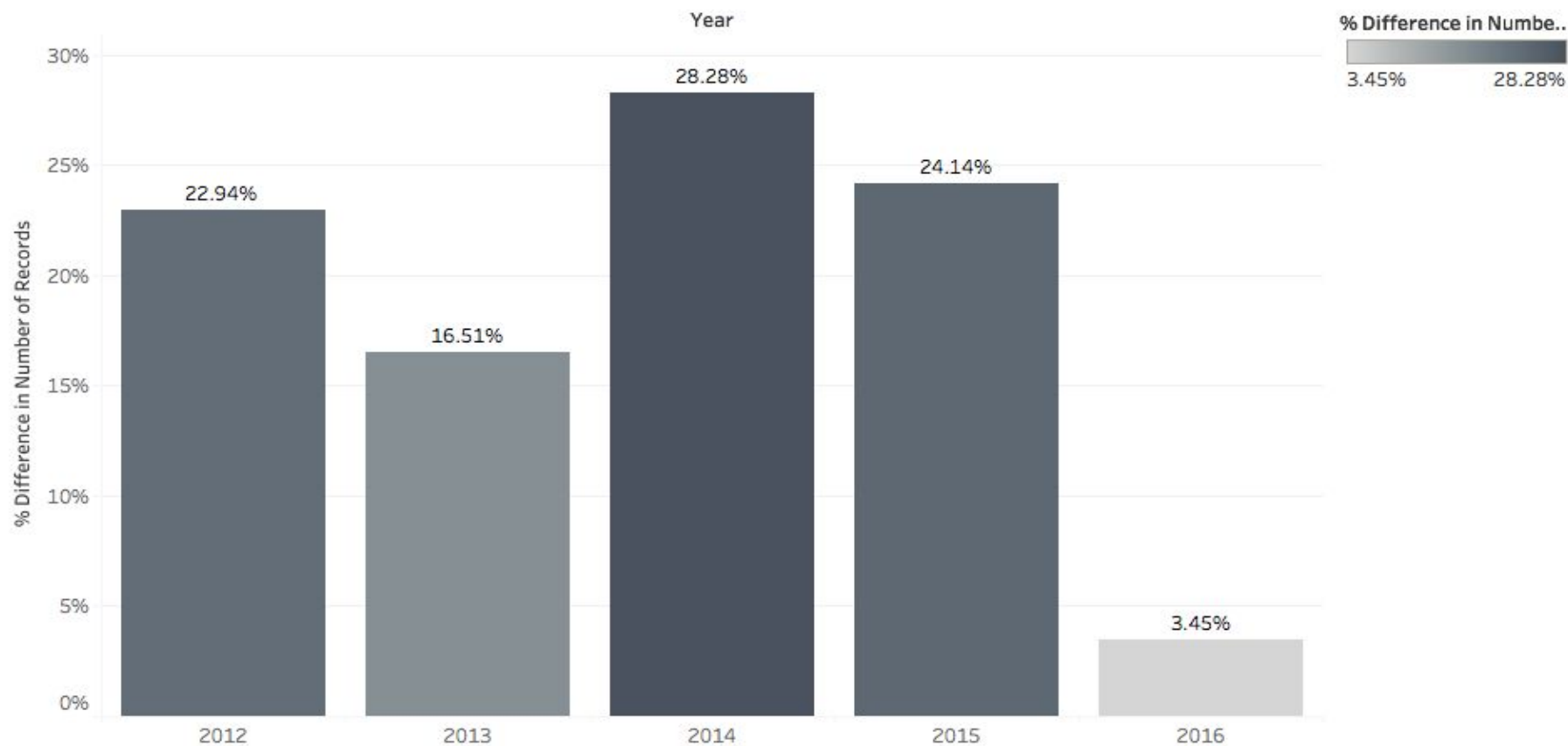
# Data Scientist Job Growth By Year(%)



% Difference in Number of Records for each Year. Color shows % Difference in Number of Records. The marks are labeled by % Difference in Number of Records. The data is filtered on Job Title - Main title, % Difference in Number of Records and sum of Number of Records. The Job Title - Main title filter keeps 225 of 213,044 members. The % Difference in Number of Records filter keeps non-Null values only. The sum of Number of Records filter keeps non-Null values only.

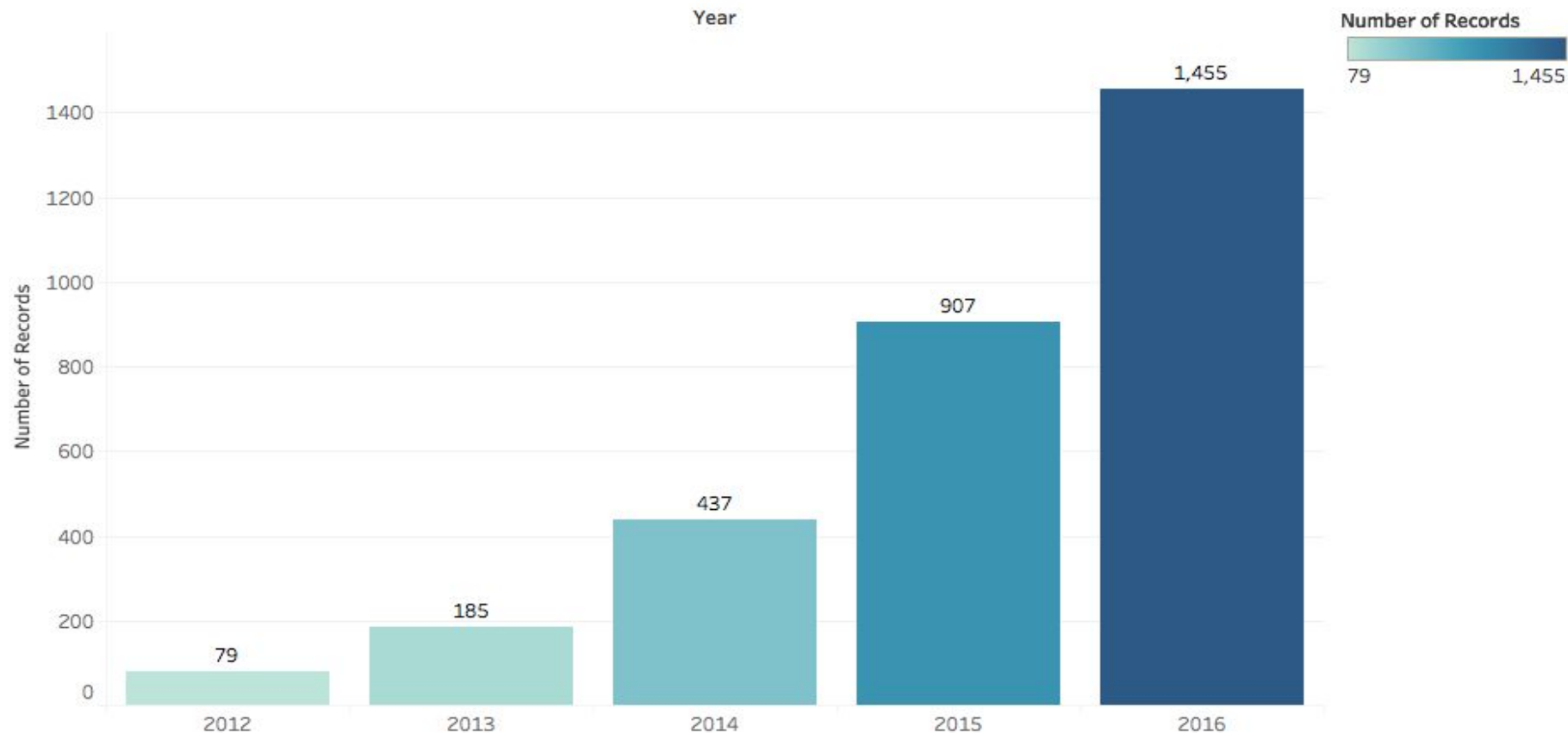


# Business Analyst Job Growth By Year(%)



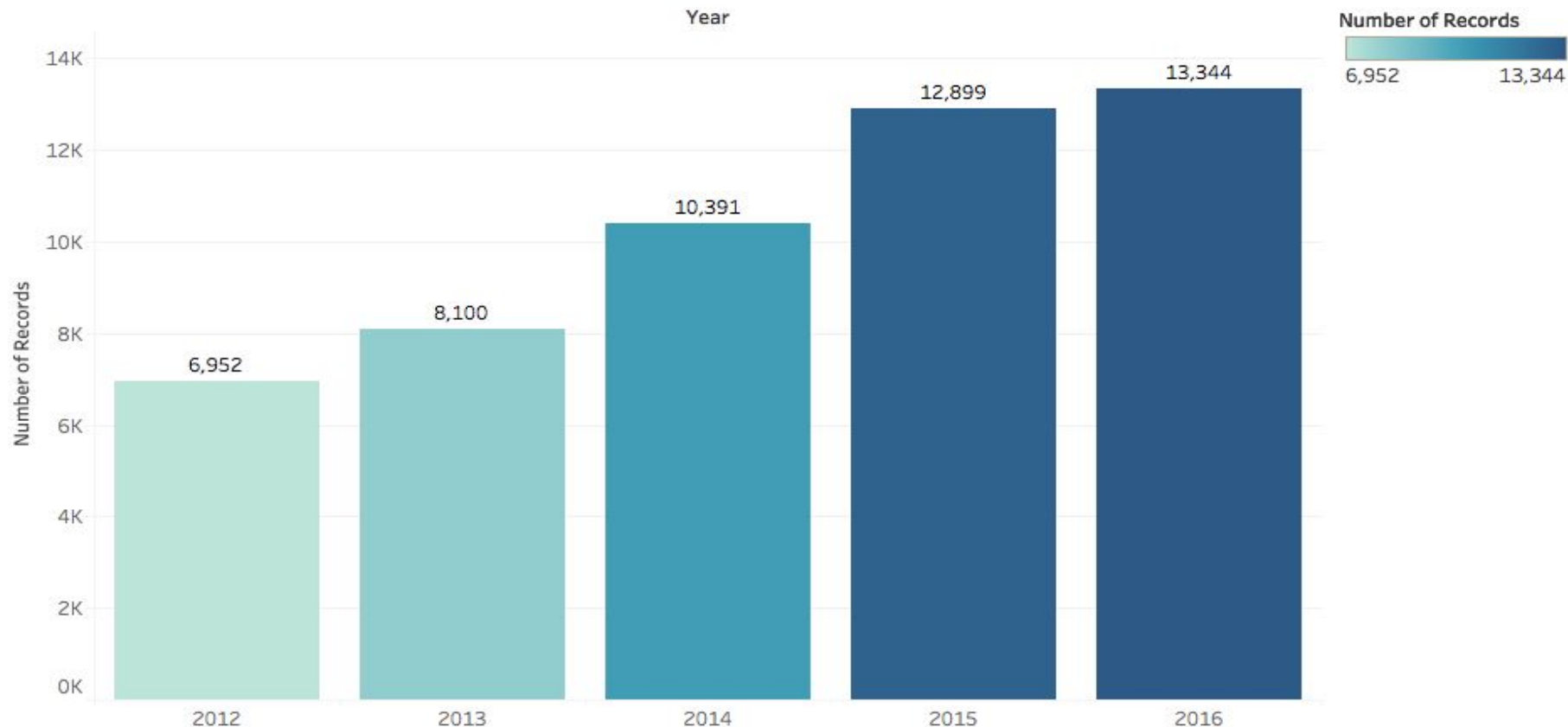
% Difference in Number of Records for each Year. Color shows % Difference in Number of Records. The marks are labeled by % Difference in Number of Records. The data is filtered on Job Title - Main title, % Difference in Number of Records and sum of Number of Records. The Job Title - Main title filter keeps 2,241 of 213,044 members. The % Difference in Number of Records filter keeps non-Null values only. The sum of Number of Records filter keeps non-Null values only.

# Data Scientist Job Growth By Year



Sum of Number of Records for each Year. Color shows sum of Number of Records. The marks are labeled by sum of Number of Records. The data is filtered on Job Title - Main title and % Difference in Number of Records. The Job Title - Main title filter keeps 225 of 213,044 members. The % Difference in Number of Records filter keeps non-Null values only. The view is filtered on sum of Number of Records, which keeps non-Null values only.

# Business Analyst Job Growth By Year



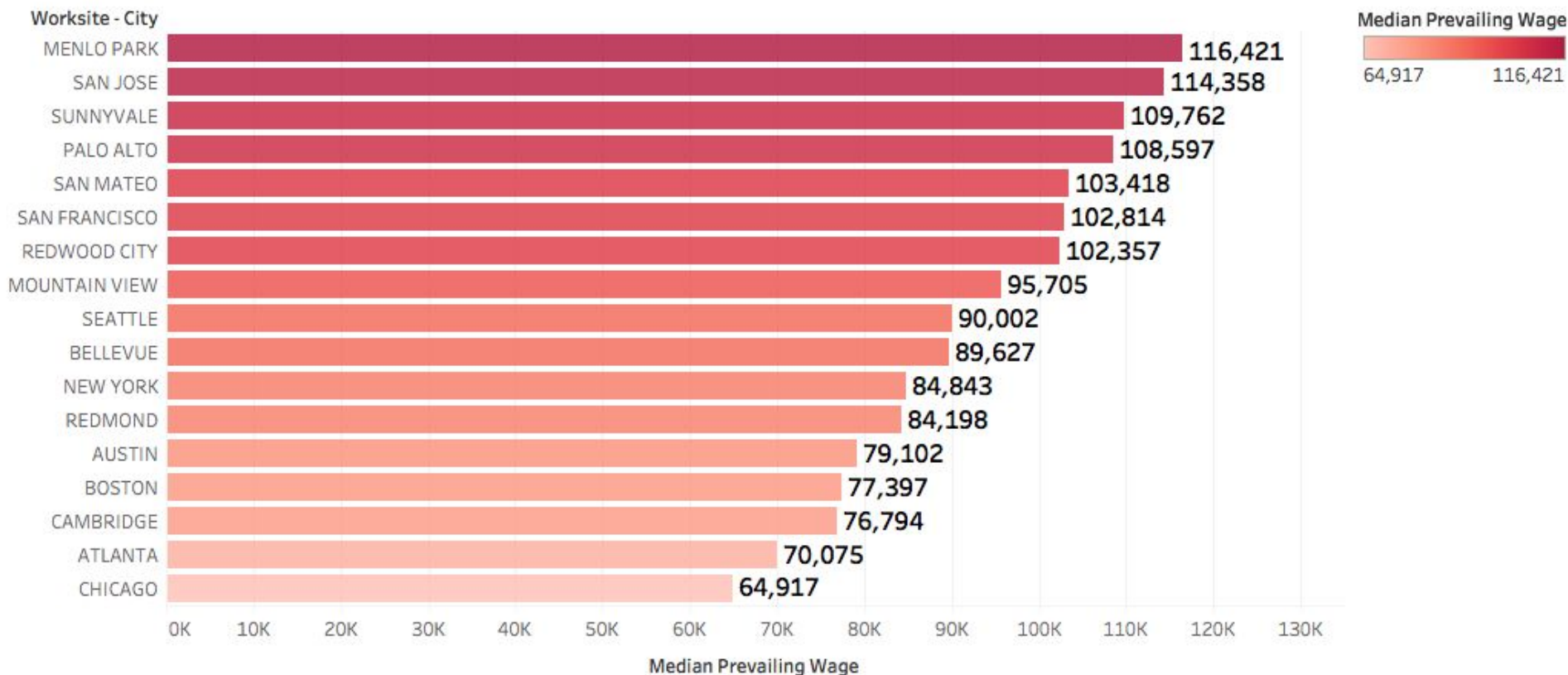
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# Top Data Scientist Spots



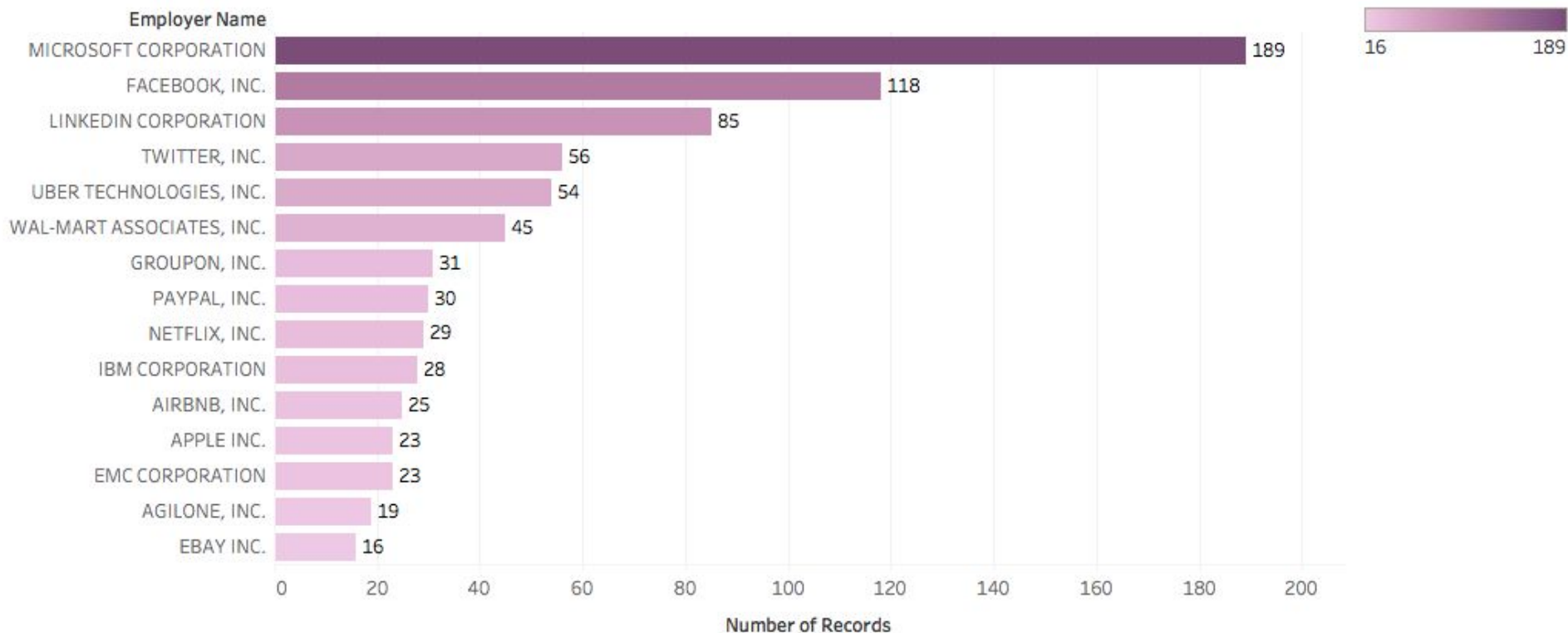
Map based on Longitude (generated) and Latitude (generated). Color shows sum of Number of Records. The marks are labeled by Worksite - City. Details are shown for Worksite - City. The data is filtered on Job Title - Main title, which keeps 225 of 213,044 members. The view is filtered on Worksite - City, which keeps 16 of 11,781 members.

# Top Data Scientist Spots in terms of wage



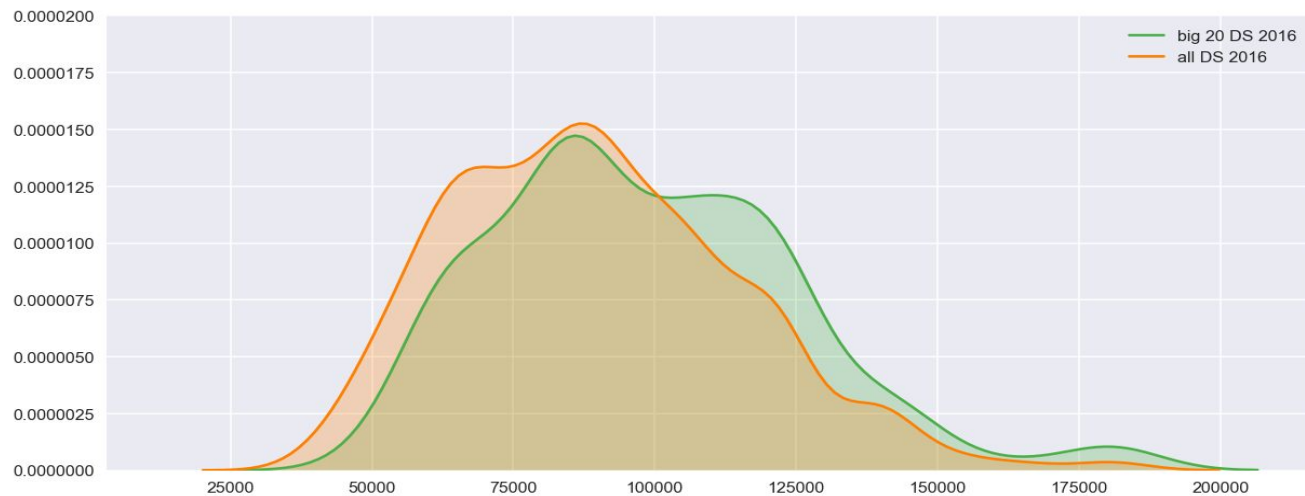
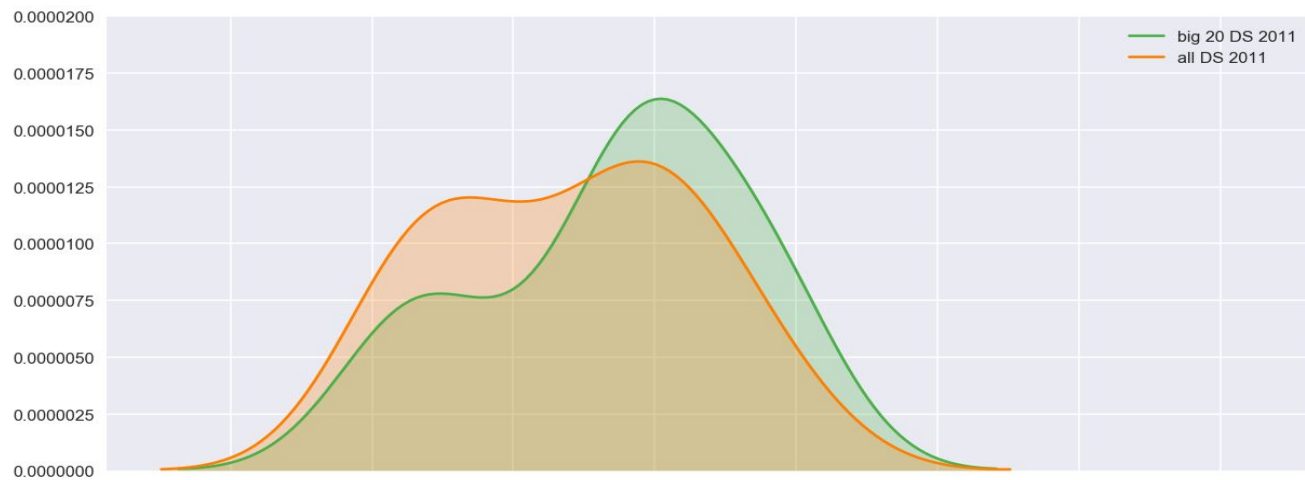
Median of Prevailing Wage for each Worksite - City. Color shows median of Prevailing Wage. The marks are labeled by median of Prevailing Wage. The data is filtered on Job Title - Main title and count of Number of Records. The Job Title - Main title filter keeps 225 of 213,044 members. The count of Number of Records filter ranges from 30 to 485. The view is filtered on Worksite - City, which keeps 11,781 of 11,781 members.  
non-null values only.

# Top Data Scientist Sponsors



Sum of Number of Records for each Employer Name. Color shows sum of Number of Records. The marks are labeled by sum of Number of Records. The data is filtered on Job Title - Main title, which keeps 225 of 213,044 members. The view is filtered on Employer Name, which keeps 15 members.

# Top 20 Data Scientist Sponsor Wage Distribution from 2011-2016





# What does this mean for the general international student?

1. Job title with highest salary: Physician and Vice President
  - related to MSBA: Data Scientist and Data Analyst
2. Company with highest median salary: Netflix and Salesforce
3. Company that submits the most H1B apps: Infosys and TATA
4. Fastest growing job titles: Data Scientist and Software Engineer
5. Preferred state to live in: California, but really TEXAS
6. Can be used for all students when seeking jobs

# What does this mean for the data scientist?

- You're in a growing industry- YAY!
- Best location: California
  - Based on most apps submitted: San Francisco
  - Based on wage: Menlo Park
- Top sponsor: Microsoft
- Smaller companies offer a greater number of positions at lower salary (maybe advantageous for entry-level)
- Bigger companies offer more opportunity for 6 figures

# Interested in other job titles?

- Contact us for your own job analysis.
- All graphs are made with Tableau and seaborn by Jack Cheng.

Thank you!