

Analytics Job Demand in the US

Brilent Analytics Bootcamp



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Understanding Analytics Job Demand in the US

Degrees & Experience

1. What's the degree requirement for different job types?

Locations

1. Where are different jobs located?
2. Which locations have the most job postings?

Skills

1. What are the top skills that each job type is looking for?
2. Which skill sets are mentioned together the most frequently?

Industries

1. What is industry distribution for different jobs titles?

Analytics Jobs Can Be Divided into Two Categories by Functions

Technical-Focused

Focusing on infrastructure, algorithm, software and data analysis

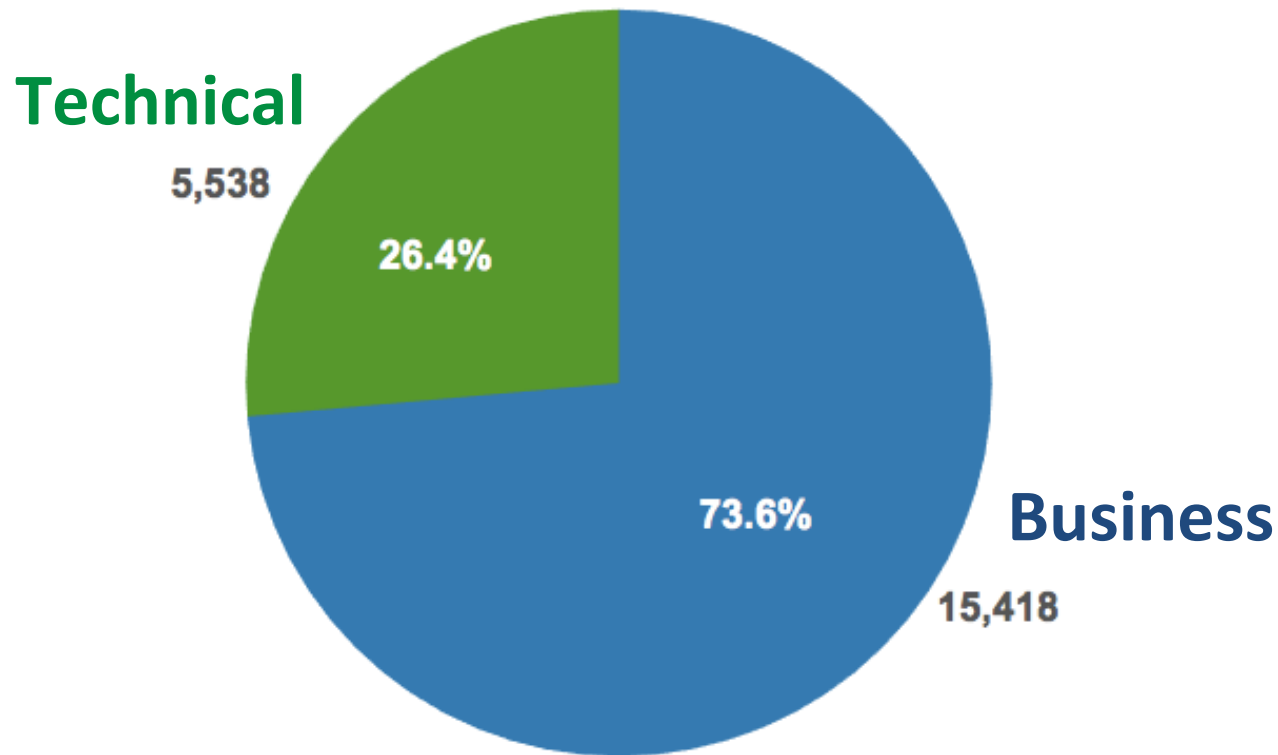
- **Data scientist**
- **Data engineer**
- **Statistician**
- Data analyst
- Data architect
- Data modeler
- Quantitative analyst
- Statistical modeler
- Machine learning
- Model analyst
- Product analyst

Business-Focused

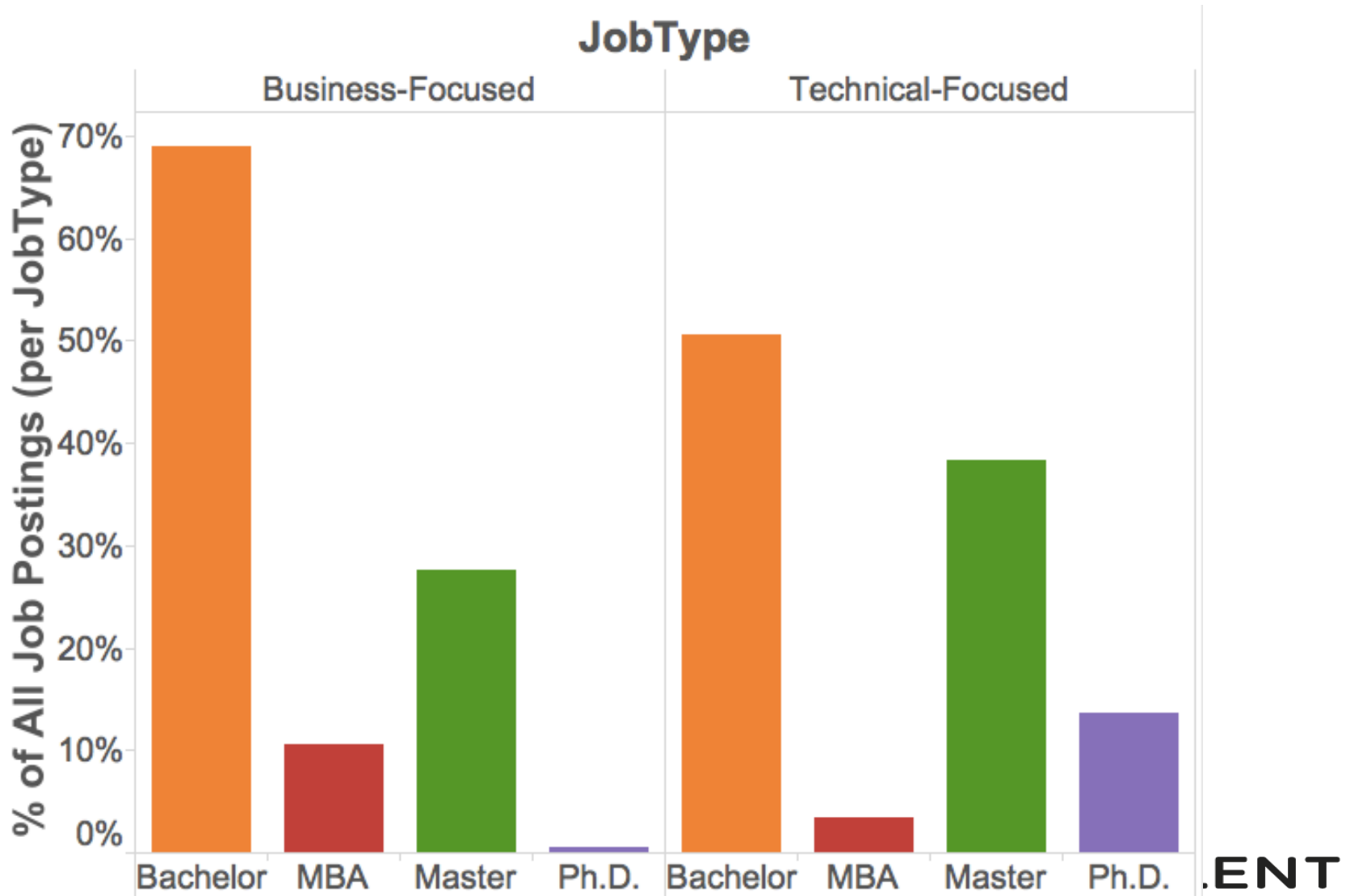
Focusing on business, market and product analysis

- **Business intelligence analyst**
- **Business analyst**
- **Financial analyst**
- Risk analyst
- Credit analyst
- Fraud analyst
- Market analyst
- Acquisition analyst
- Forecasting analyst

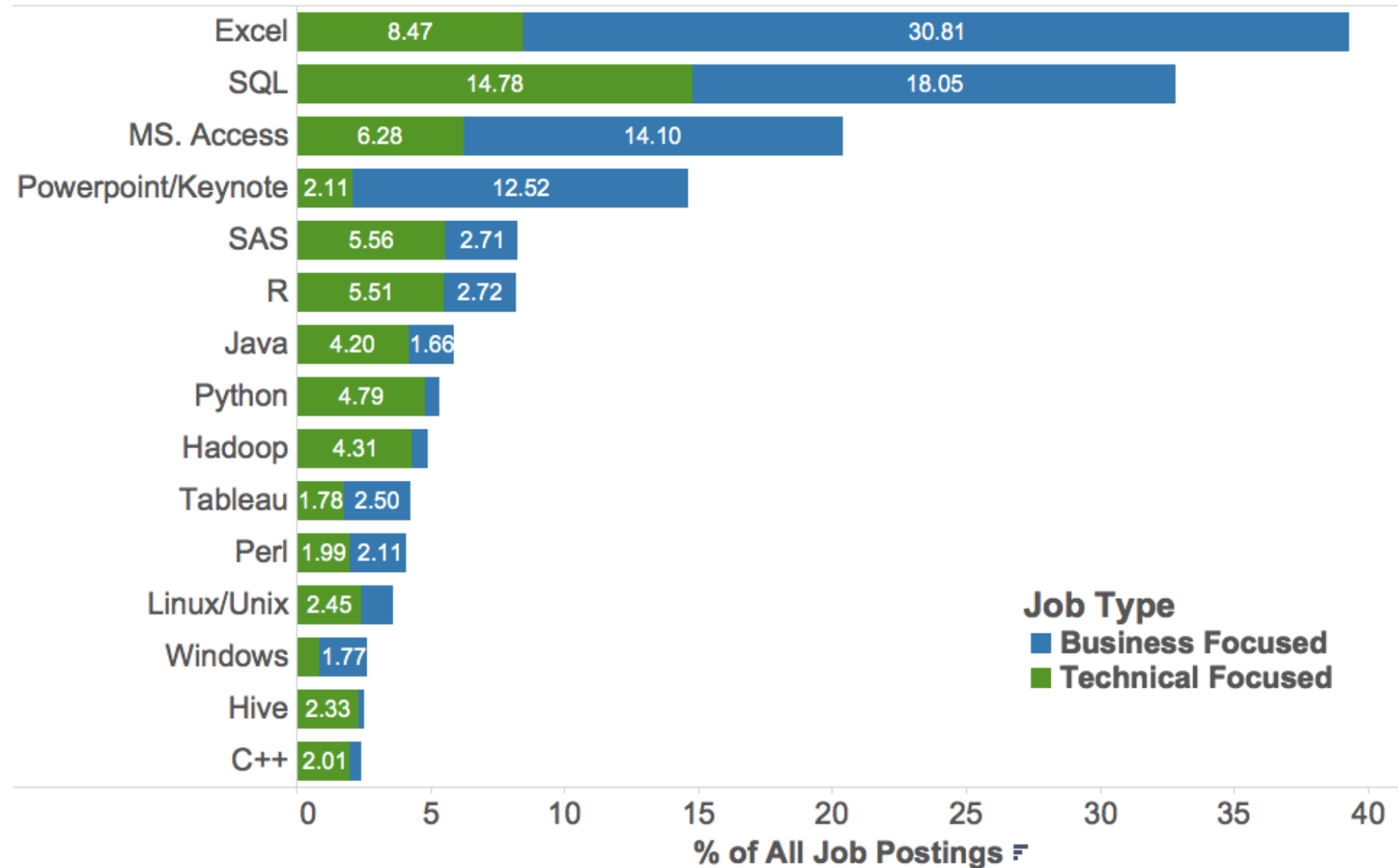
The Ratio of Business-Focused vs. Technical-Focused Job Demand is 3:1



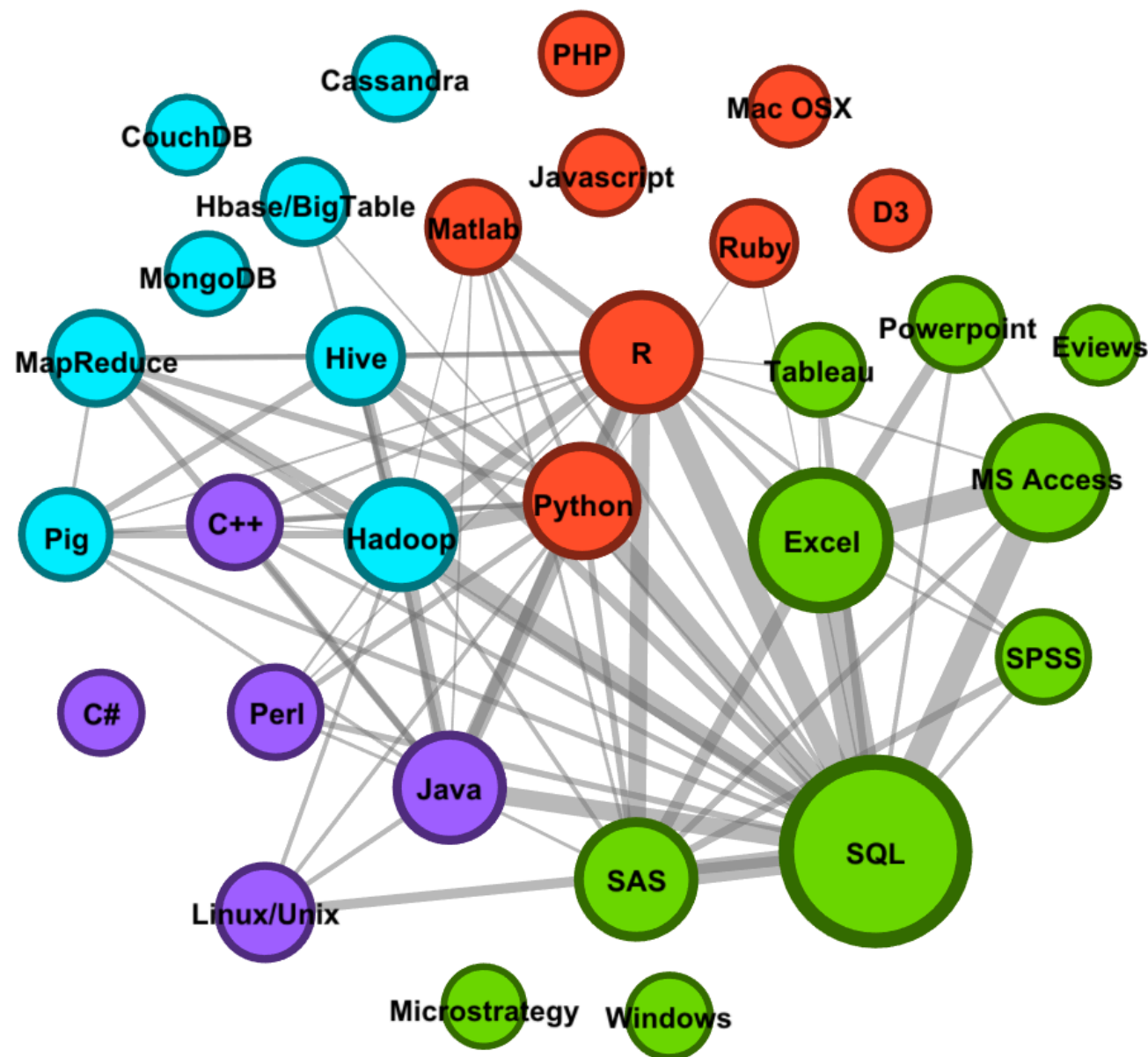
Technical-Focused Jobs Prefer Advanced Degrees



Most Desired Computing Tools: Excel & SQL



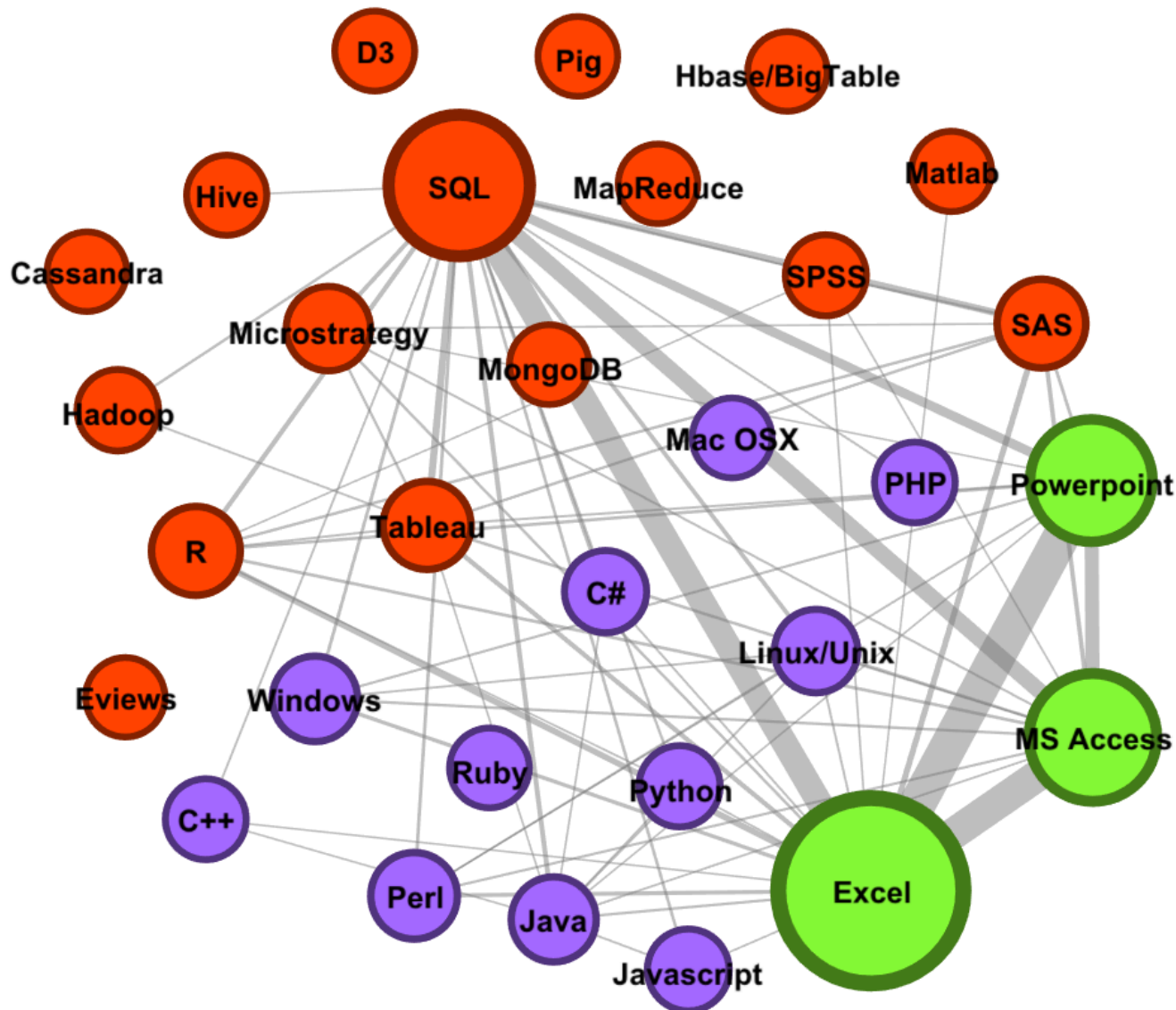
Skill Map: Technical-Focused Analytics



Top 10 Killer Combos:

| | |
|-------|-----------|
| SQL | Excel |
| SQL | MS Access |
| Excel | MS Access |
| SQL | SAS |
| SQL | R |
| SQL | Python |
| SQL | Hadoop |
| SQL | Java |
| R | Python |
| R | SAS |

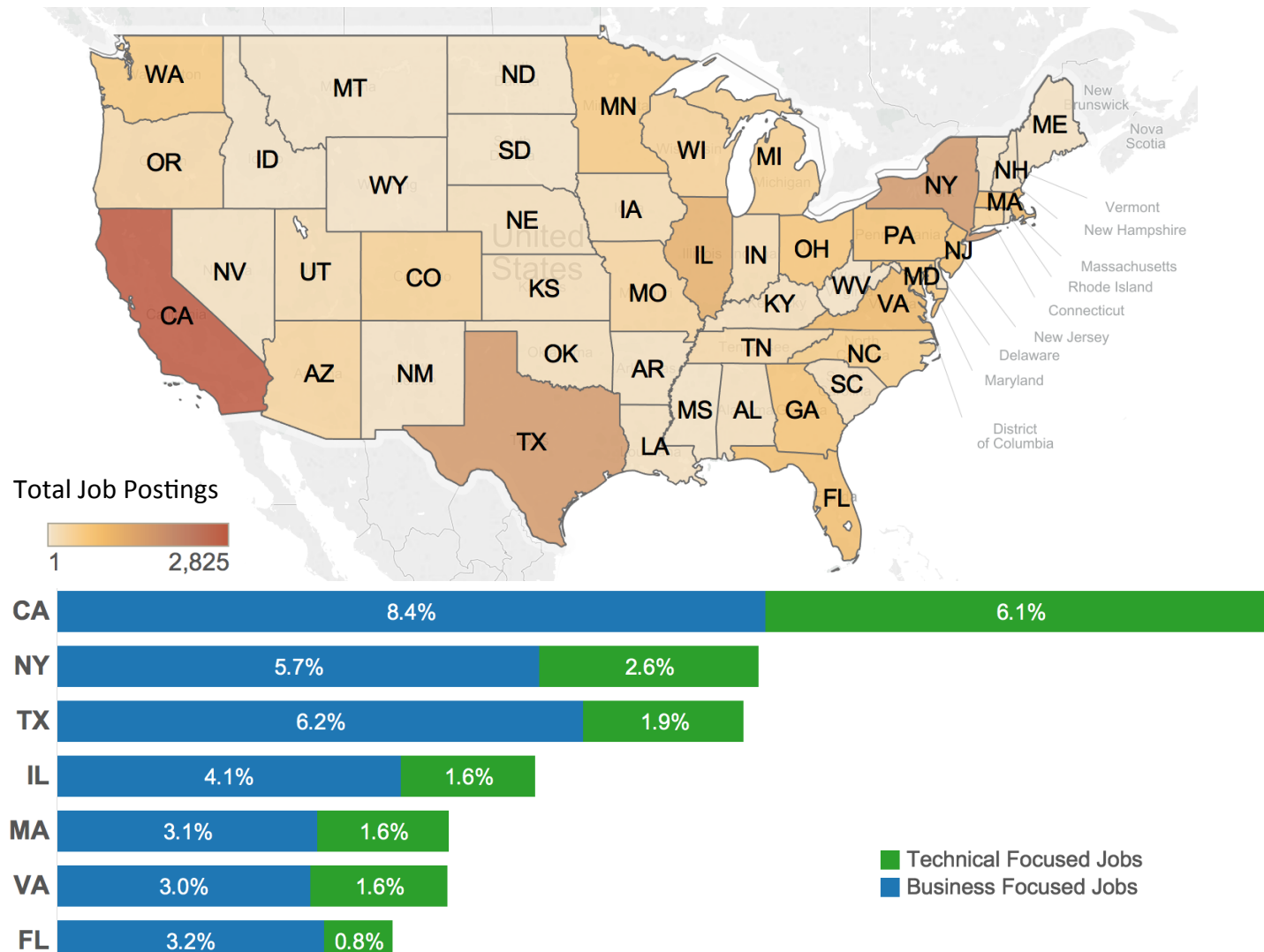
Skill Map: Business-Focused Analytics



Top 10 Killer Combos:

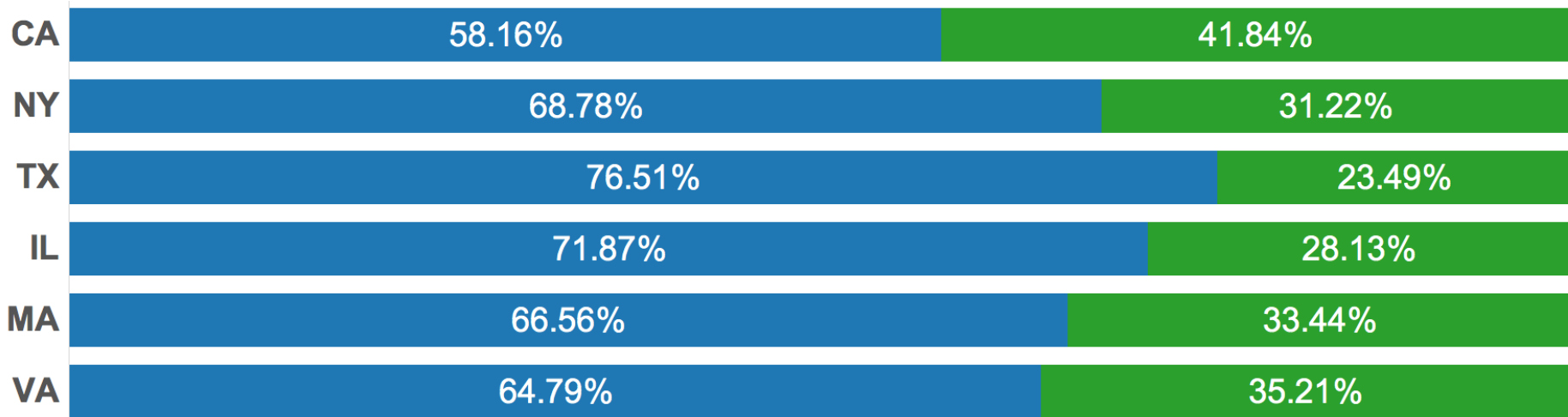
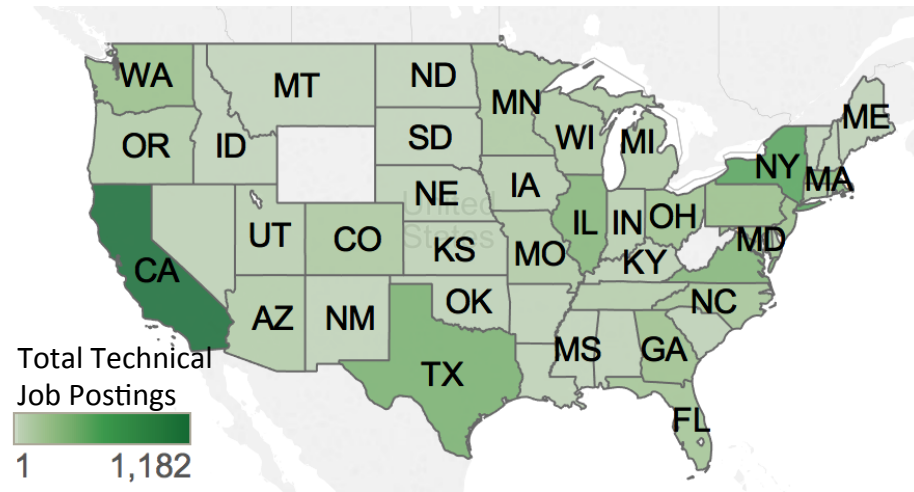
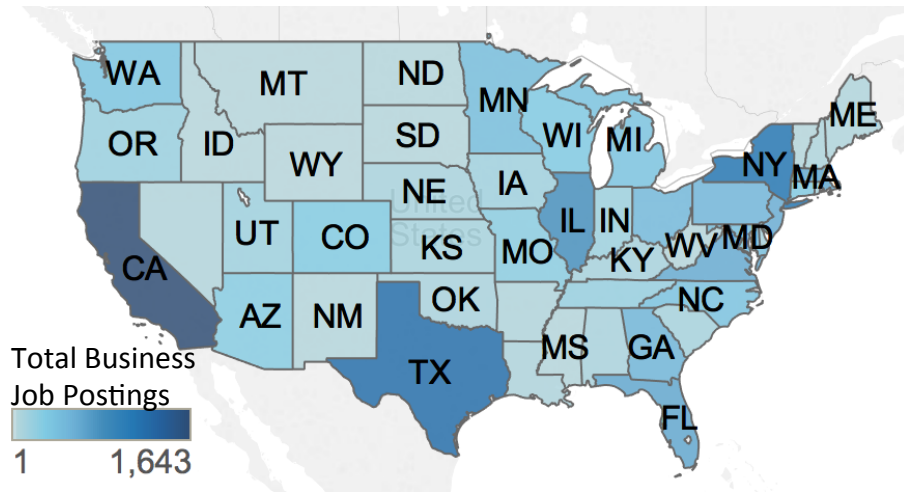
| | |
|-----------|------------|
| Excel | Powerpoint |
| Excel | MS Access |
| Excel | SQL |
| SQL | MS Access |
| MS Access | Powerpoint |
| SQL | Powerpoint |
| SQL | Tableau |
| SQL | SAS |
| Excel | R |
| Excel | SAS |

Analytics Job Demand Map



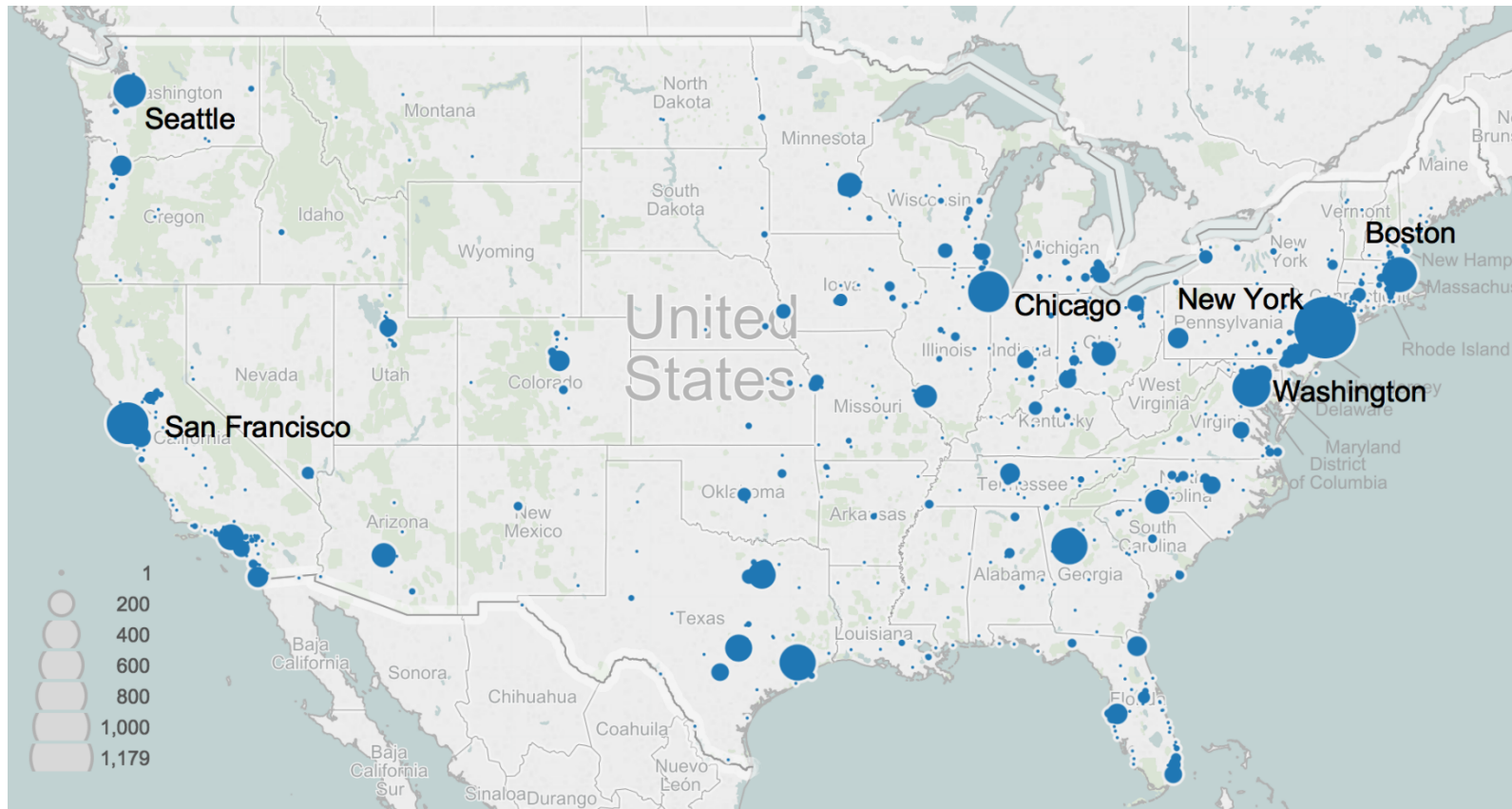
Percentage of Total Job Postings by State and Job Category

Comparison among Two Job Categories



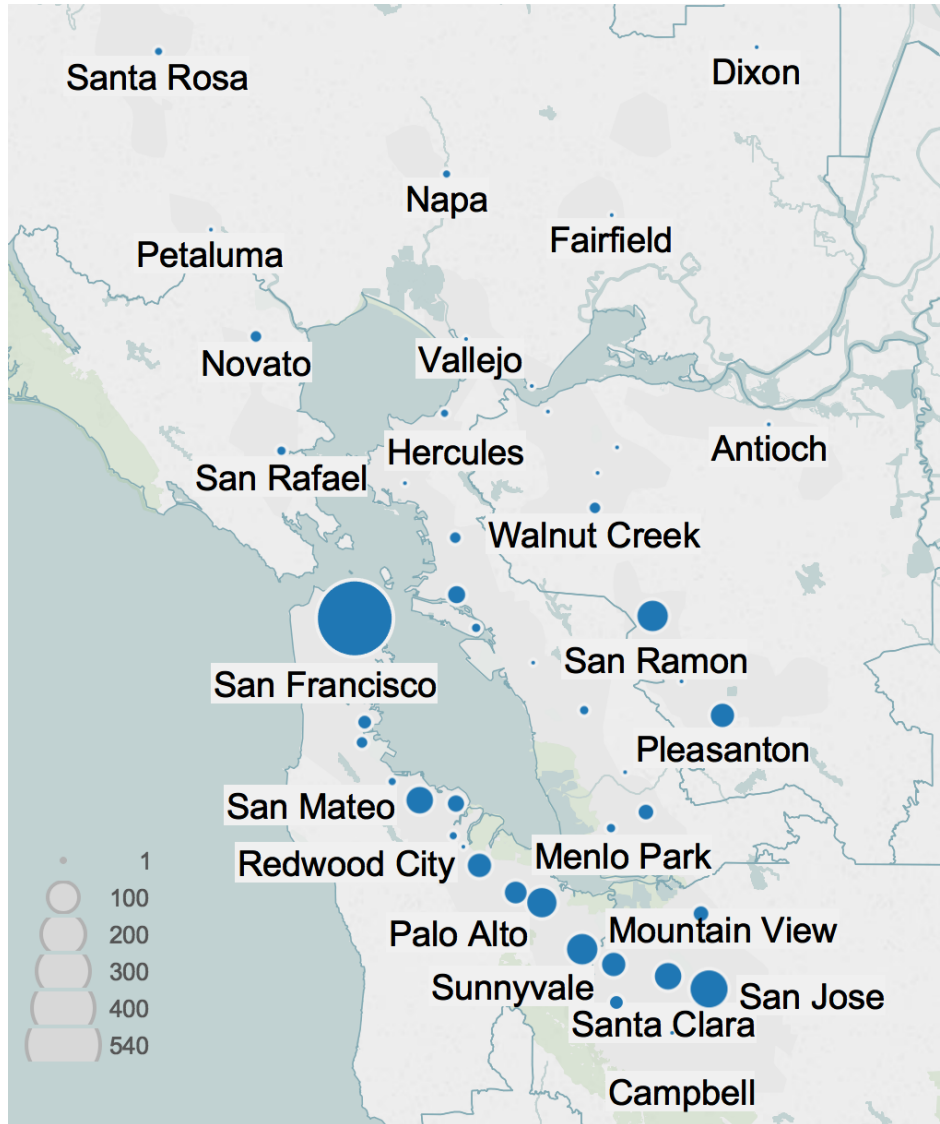
Percentage of Job Category within States of the Highest Job Demand

Cities with High Job Demands

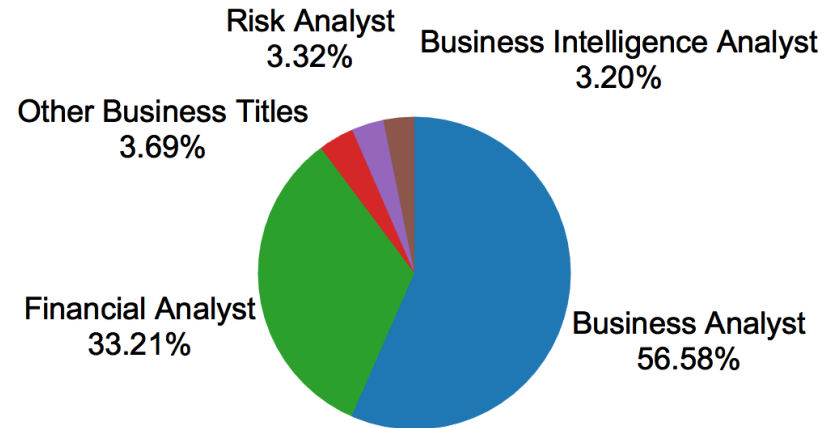


| Cities | Total Job postings | Cities | Total Job postings |
|---------------|--------------------|------------|--------------------|
| Seattle | 330 | Boston | 382 |
| San Francisco | 540 | New York | 1179 |
| Chicago | 521 | Washington | 449 |

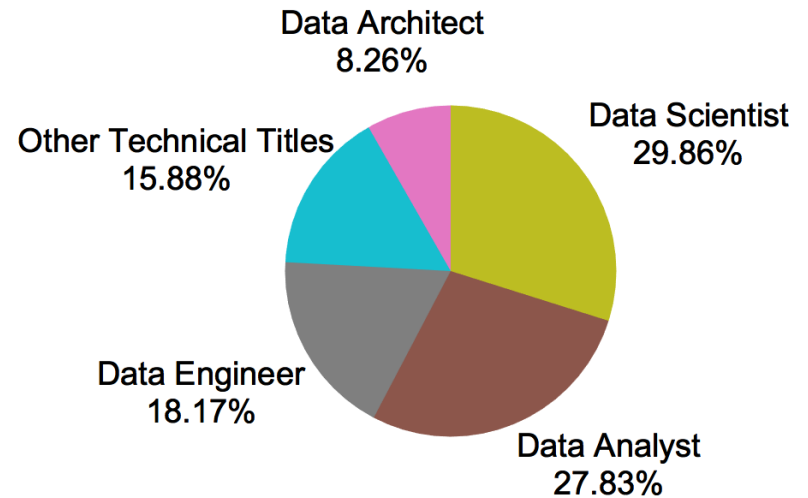
Job Demand in the Bay Area



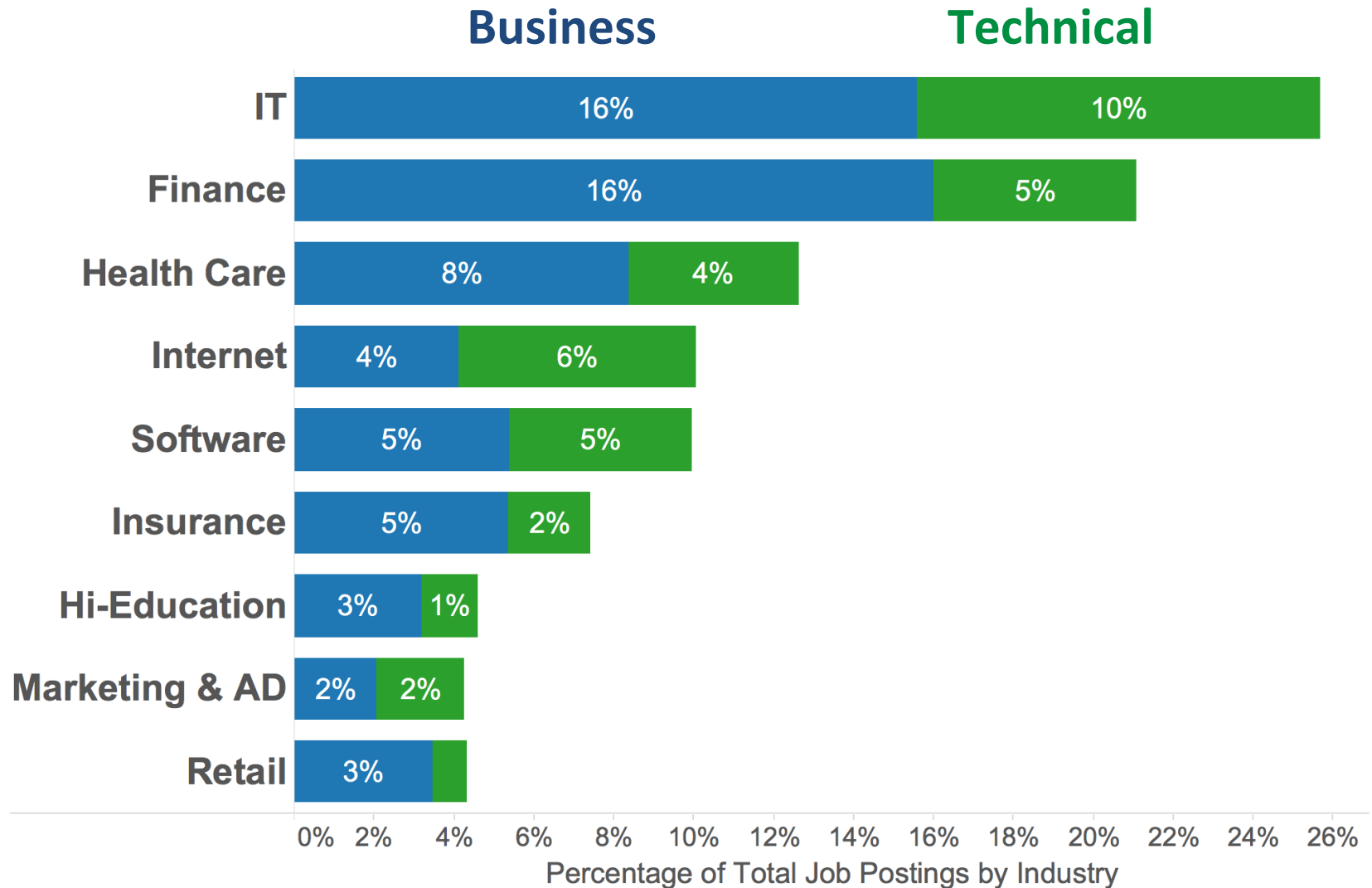
Business-Focused



Technical-Focused

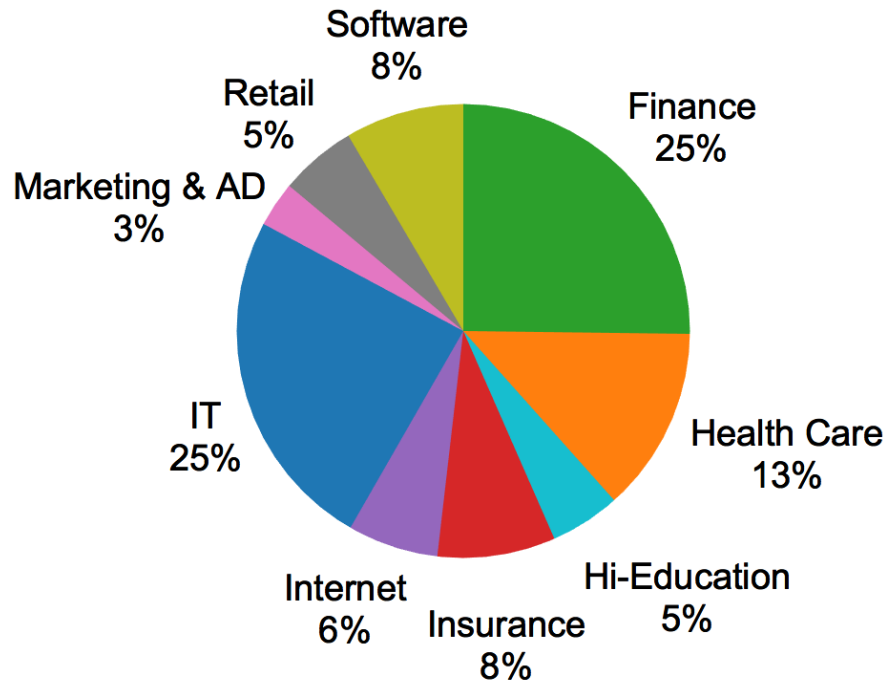


Job Demand by Industry

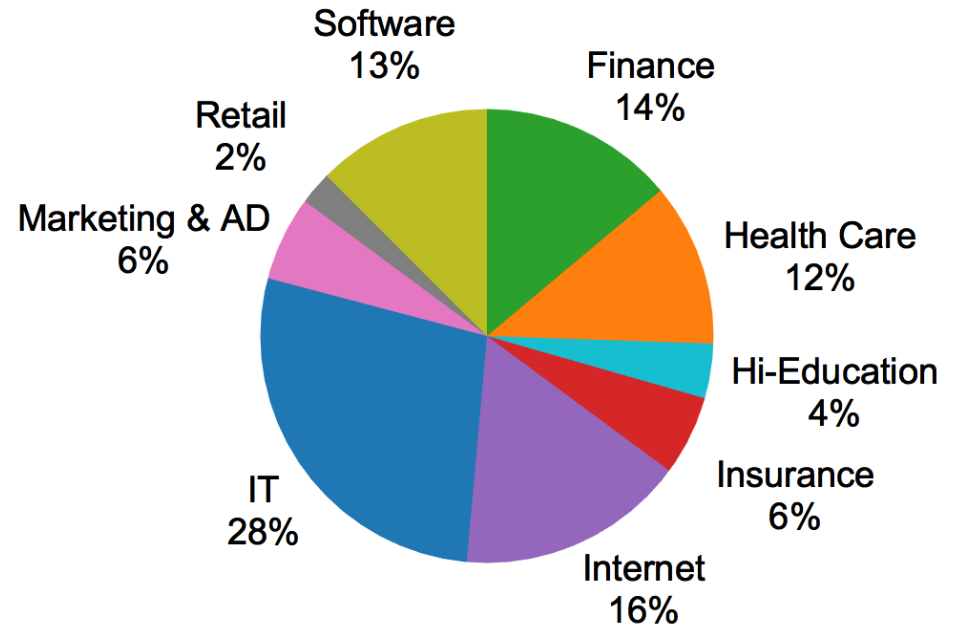


Job Demand Distribution by Industry

Business Focused Jobs



Technical Focused Jobs



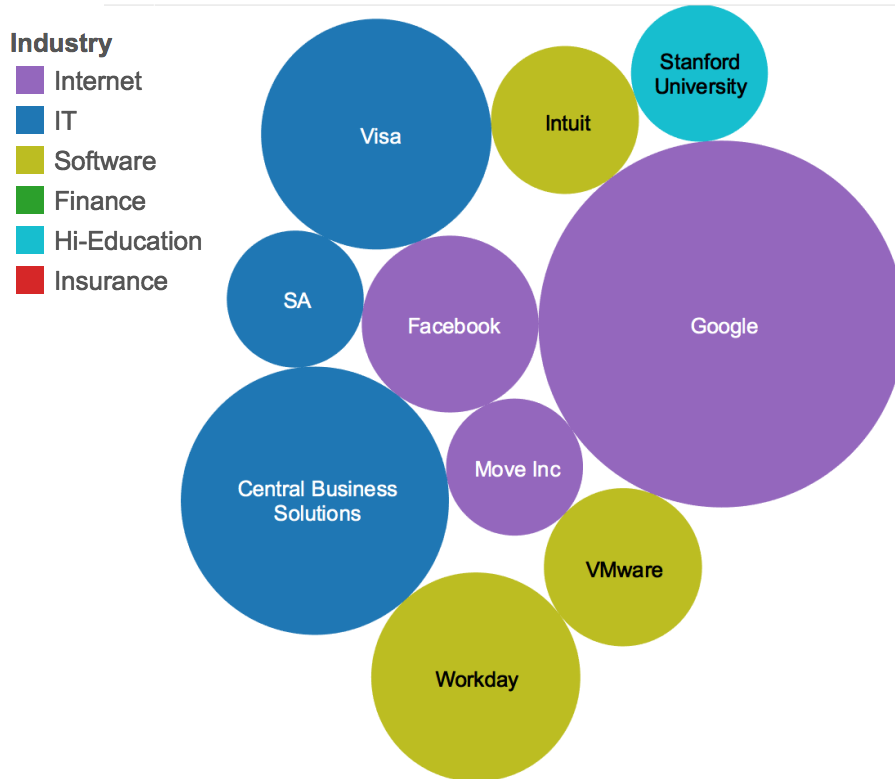
Job Demand by Industry and State

| State | IT | Finance | Health Care | Internet | Software | Insurance | Hi-Educ.. | Marketing & AD | Retail |
|-------|-------|---------|----------------|----------|----------|-----------|-----------|-------------------|--------|
| CA | 23.6% | 8.6% | 5.6% | 28.5% | 17.3% | 6.6% | 2.8% | 5.7% | 1.4% |
| NY | 14.8% | 48.5% | 7.1% | 7.1% | 5.7% | 4.2% | 2.7% | 7.1% | 2.6% |
| TX | 34.1% | 24.1% | 12.8% | 4.5% | 7.0% | 2.5% | 6.5% | 4.8% | 3.8% |
| IL | 16.5% | 25.9% | 11.7% | 7.1% | 7.4% | 10.7% | 3.9% | 9.1% | 7.8% |
| MA | 13.2% | 27.0% | 9.0% | 5.8% | 13.5% | 15.4% | 11.3% | 3.2% | 1.6% |
| VA | 55.7% | 17.2% | 4.7% | 6.3% | 3.6% | 5.7% | 6.3% | 0.5% | |
| FL | 27.2% | 22.6% | 16.7% | 2.1% | 6.3% | 13.0% | 6.3% | 1.3% | 4.6% |
| NJ | 40.7% | 34.9% | 8.1% | 0.6% | 2.3% | 2.3% | 0.6% | 2.9% | 7.6% |
| PA | 28.1% | 26.5% | 12.4% | 1.1% | 5.9% | 6.5% | 5.9% | 1.6% | 11.9% |
| GA | 32.6% | 17.7% | 10.3% | 1.1% | 11.4% | 8.0% | 2.9% | 6.9% | 9.1% |
| OH | 22.8% | 26.2% | 13.1% | 0.7% | 4.8% | 14.5% | 2.1% | 3.4% | 12.4% |

- Each row sum to 1. The percentage is rounded for display purpose.
- The industries are ranked by decreasing demand from left to right; the states are ranked by decreasing demand from top to bottom.
- The color code indicates the actual number of job postings. The darker, the more job postings.

Bay Area Company & Industry of Top Job Demand

Business Focused Jobs



Technical Focused Jobs



- Data are from bay area; two job categories are analyzed separately.
- The scale for the two plots are the same.
- Size of bubble is proportional to the number of job postings from the company.
- Companies with less job postings are filtered out for visualization purpose.