

# **Visualization of Indiana's talent pipeline and workforce**

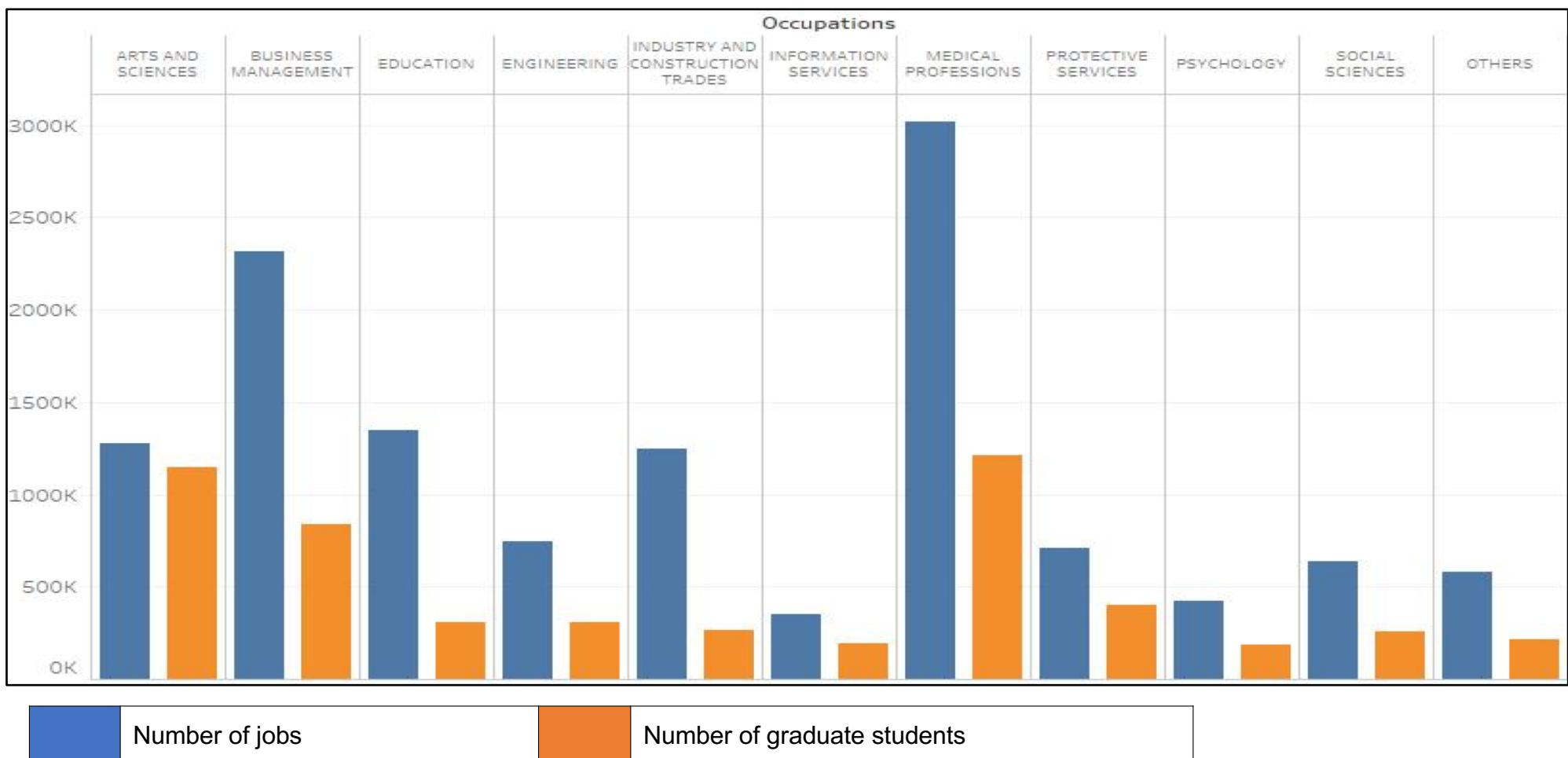
**Kimball Wu, Sumeet Mishra, Varun Miranda, Amit Makashir, Arpit Rajendra Shah, Uma B Kota, Yashaswini Dhatrika, Prahasan Gadugu, Ha-Lan Nguyen, Supriya Balasubramanian**

School of Informatics, Computing and Engineering  
Indiana University, Bloomington, USA

September 26, 2018

INDY BIG DATA CONFERENCE 2018 VISUALIZATION CHALLENGE

# Current Scenario



## Supply < Demand

(Skilled workforce shortage)

Graduates in different fields

Better education elsewhere

Graduates moving to other States

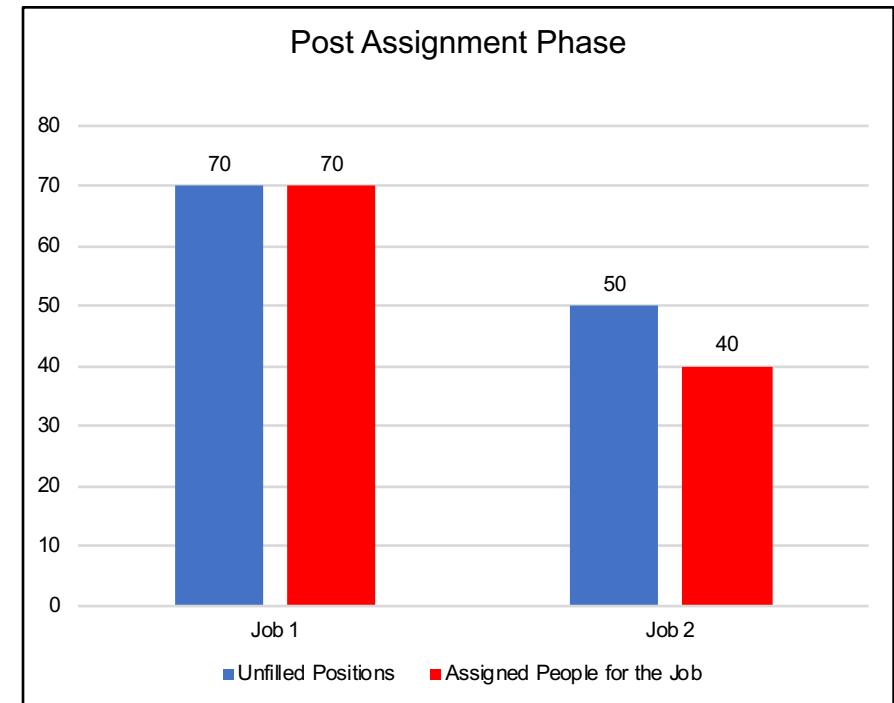
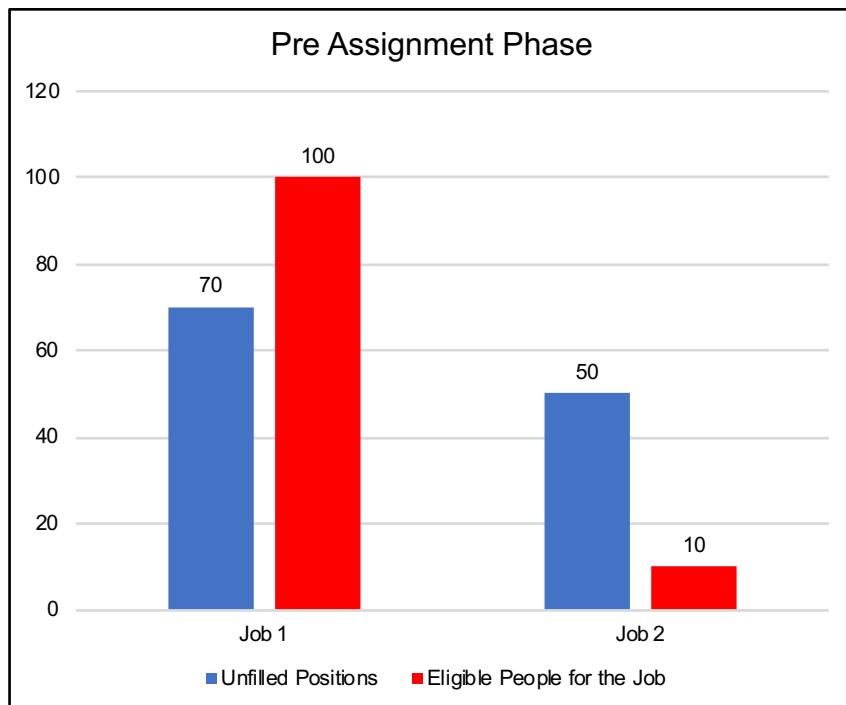
Scholarships and grants

Major not offered

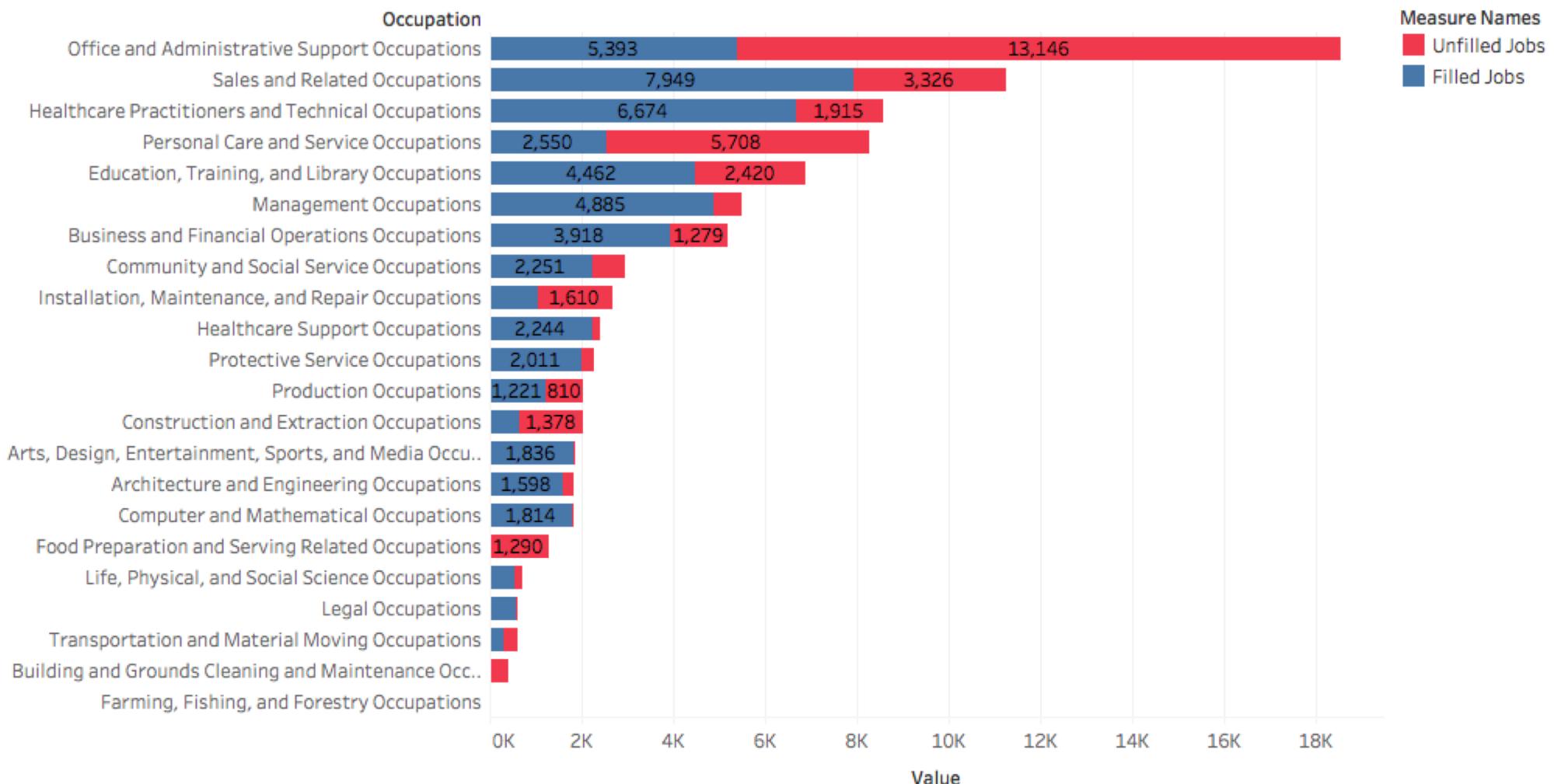
Better overall infrastructure

Better Job market and salaries

# What if Supply > Demand?

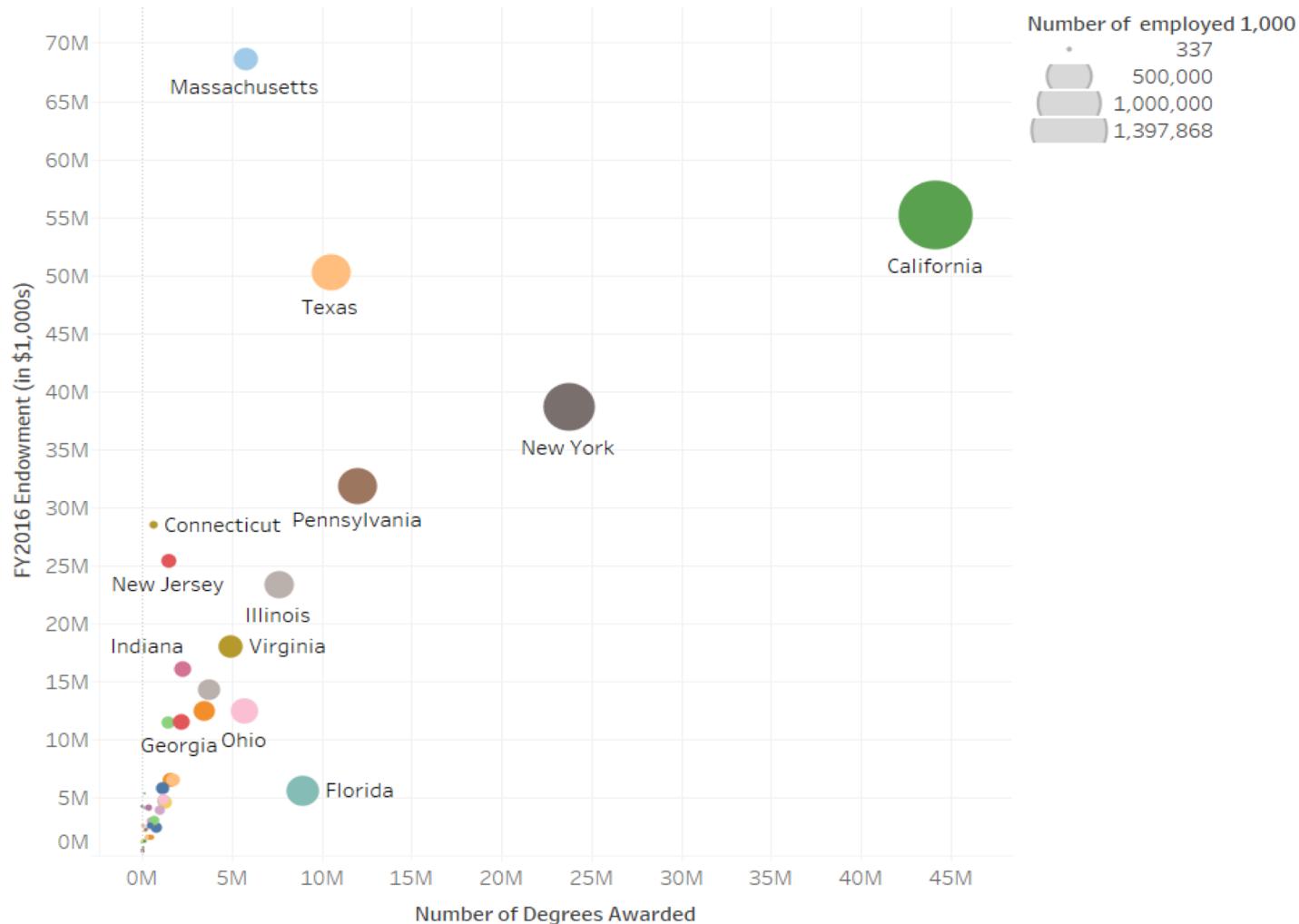


## Filled Jobs Vs Unfilled Jobs



Unfilled Jobs and Filled Jobs for each Occupation. Color shows details about Unfilled Jobs and Filled Jobs. The data is filtered on sum of Total Jobs, which ranges from 16 to 18,539. The view is filtered on sum of Filled Jobs, which ranges from 0 to 7,949 and keeps Null values.

## Are Funds driving Job Placements?

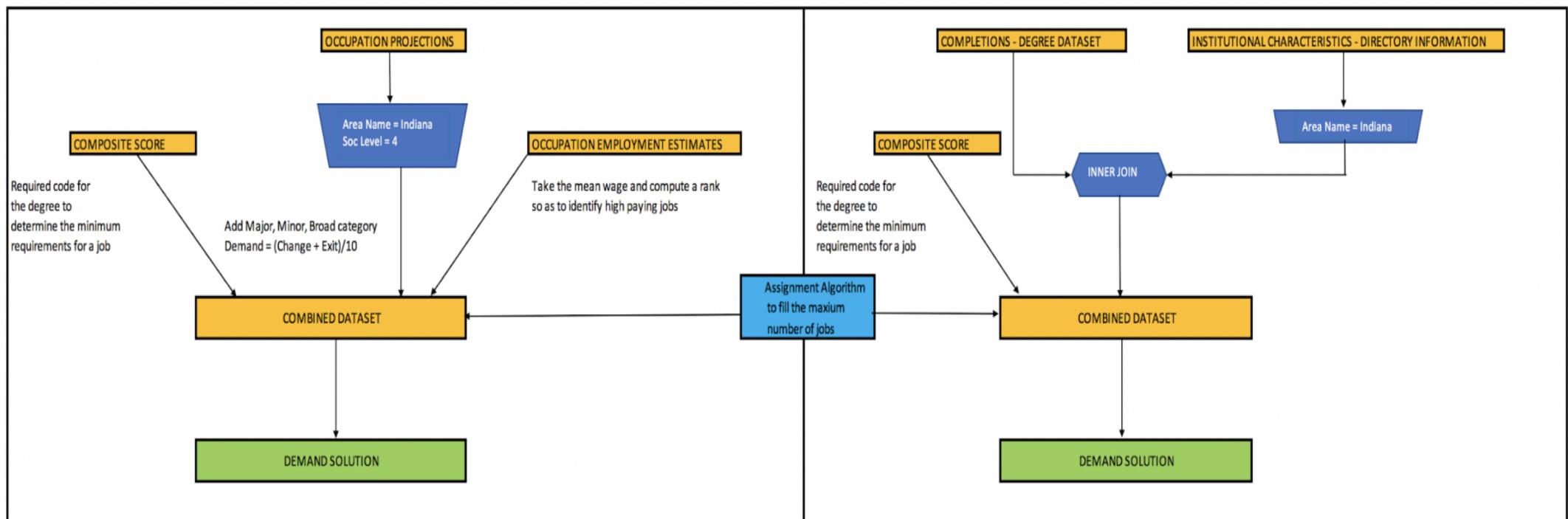


Sum of Number of Degrees Awarded vs. sum of FY2016 Endowment (in \$1,000s). Color shows details about State. Size shows sum of Number of employed 1,000. The marks are labeled by State. Details are shown for State.

## FINDINGS

- Although Massachusetts is the highest in terms of funding, it awards lesser degrees than California, New York and Texas
- Massachusetts is also behind the aforementioned cities when it comes to the number of people employed
- California is the clear winner, considering all the three factors funds, number of people employed and number of degrees awarded

# Entity Relationship Diagram



## Data Credits

- Occupation Projections - [Indiana Data Hub](#)
- Composite Score - [Indiana Data Hub](#)
- Occupation Employee Estimates - [Indiana Data Hub](#)
- Completions - Degree - [National Center for Education Statistics](#)
- Institutional Characteristics - Directory Information - [National Center for Education Statistics](#)