

What is The Ideal College? **(and What Does “Ideal” Mean?)**

by Mark Ayiah

Motivation

Research Question

What are the factors influencing university ratings/outcomes, and how do they vary across various, quantifiable metrics?

The Data

Merged Data From Over 100 Schools, Courtesy of...

The New York Times Higher Education World University Ranking

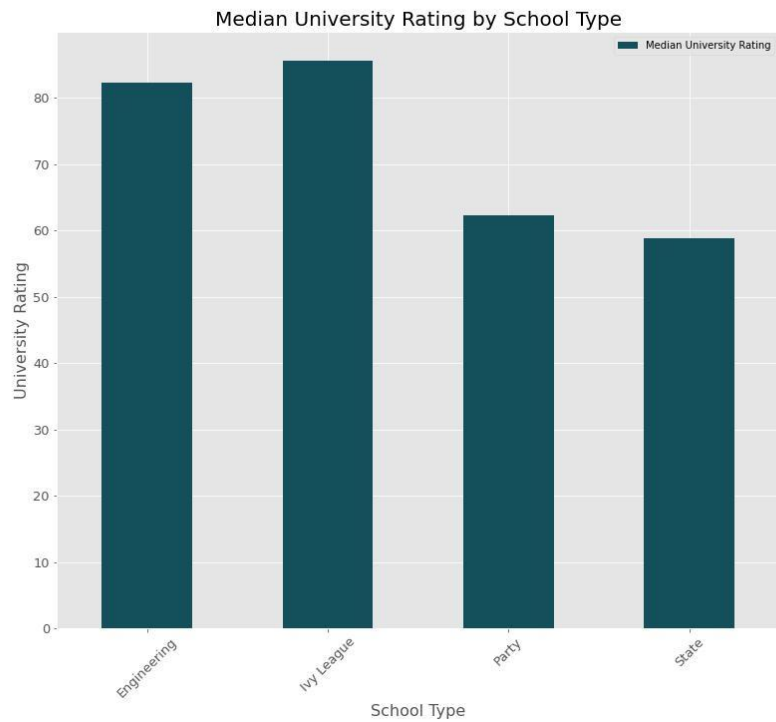
- Contains university metrics including ratings on: **teaching, international outlook, research, citations**, etc.
- Also had demographic data like **student population & student-to-staff ratio**

The Wall Street Journal

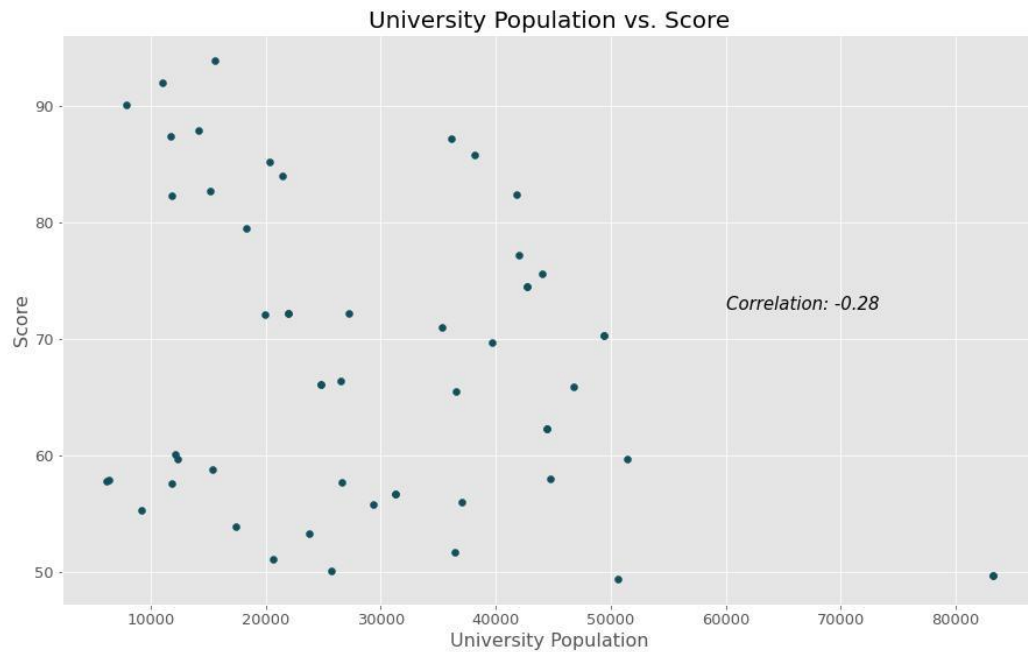
- Contains post-graduate **salary data** including: median **starting salary**, median **mid-career salary**, and 10th, 25th, 75th, & 90th **percentile mid-career salaries**
- Also contained **type of school** and school's **region**

Analysis

Preliminary Analysis



Preliminary Analysis pt. 2



**How can I use this data to gain
better insight?**

Personalization Algorithm

- Developed an algorithm that creates a composite score for each university in the dataset based off of these main factors:
 - **Scholastic Experience** (Teaching, Student/Staff Ratio)
 - **Academia** (Research Presence)
 - **Post-Grad Salary**
 - **Reputation** (Domestic & International)
 - **Region**
- Attributes different scores for each category (not every category is required) based on proximity to preference,
- Returns the top 5 schools that best match the query

**Student A:
Large School in
the West w/ a
solid reputation &
academic
experience**

Institution Name	Personal Composite Score	Student Population	Teaching Rating	Student-to-Staff Ratio	International Acclaim Rating	NY Times Score	Region
Stanford University	91.62	15,596	92.5	7.8:1	76.3	93.9	California
University of California, Los Angeles	85.17	38,206	80.8	10.3:1	56.4	85.8	California
University of Washington	83.19	44,020	67.1	11.8:1	51.2	75.6	Western
University of California, Berkeley	82.49	36,186	80.4	16.4:1	61.9	87.2	California
University of California, San Diego	80.89	27,233	56.9	6.5:1	42.9	72.2	California

Student B:
Medium-sized
school in the
northeast with a
solid reputation,
good scholarly
presence, and a
high expected
post-grad salary
that is *not* an ivy

Institution Name	Personal Composite Score	Student Population	Research Score	Citations Score	Salary Index	Starting Median Salary	International Outlook Rating	NY Times Score	Region
Massachusetts Institute of Technology,	95.88	11,074	88.6	99.7	100.0	\$72,200	84.0	92.0	Northeastern
Carnegie Mellon University	91.02	11,885	88.8	99.1	94.0	\$61,800	57.1	82.3	Northeastern
University of Chicago	84.61	14,221	88.9	99.2	85.1	\$53,400	65.0	87.9	Midwestern
University of Notre Dame	74.02	11,829	48.1	81.7	91.0	\$56,300	47.6	57.6	Midwestern
New York University	72.44	42,056	72.3	95.3	70.9	\$50,300	49.3	77.2	Northeastern

Conclusions

“You Get Out What You Put In”

1. In conclusion, when it comes to picking a college, **you get out what you put in**
2. University scores (like the NY Times') are very **far from one-size-fits-all prescriptions** for how good a college matches the individual
3. The **more specific** you are in how you explain what is important to you college experience, the **more likely** you are to find a college that best suits your needs.