



College Scorecard

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DATA512

► Motivation

- ▶ During the Obama administration, one of his initiatives was to provide more transparency to higher education. A by-product of the initiative was the public release of complete metrics of institutions and post-school earnings.

► Data

- ▶ 2017 College Scorecard Data: Full dataset on 7175 US higher education institutions
- ▶ 2017 Post-school Earnings: Comprehensive earnings data of 2016-2017 year
- ▶ Data used for analysis are limited to 4-year-degree granting institutions

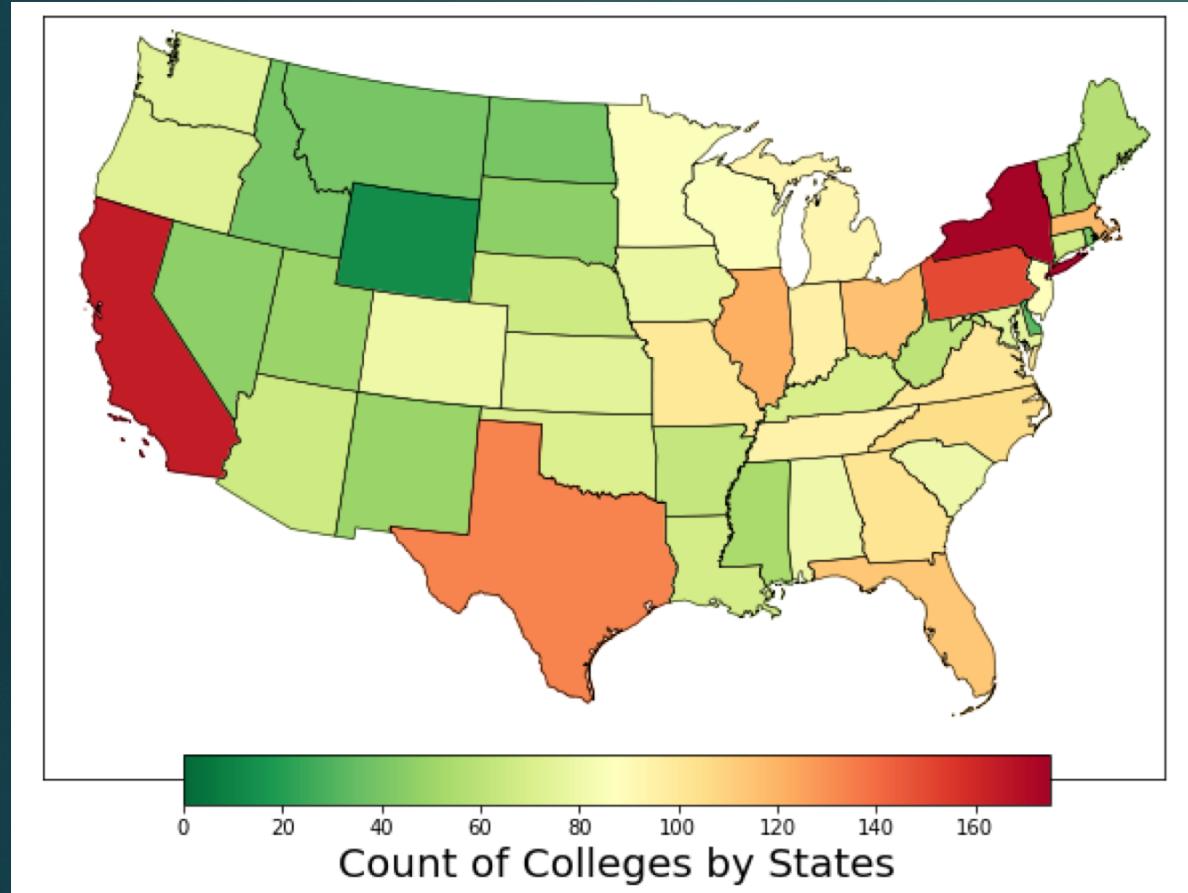
► User Persona

- ▶ Graduating senior, deciding on which colleges to apply, international student, no access to federal loan, no preference on state or region

► Research Questions

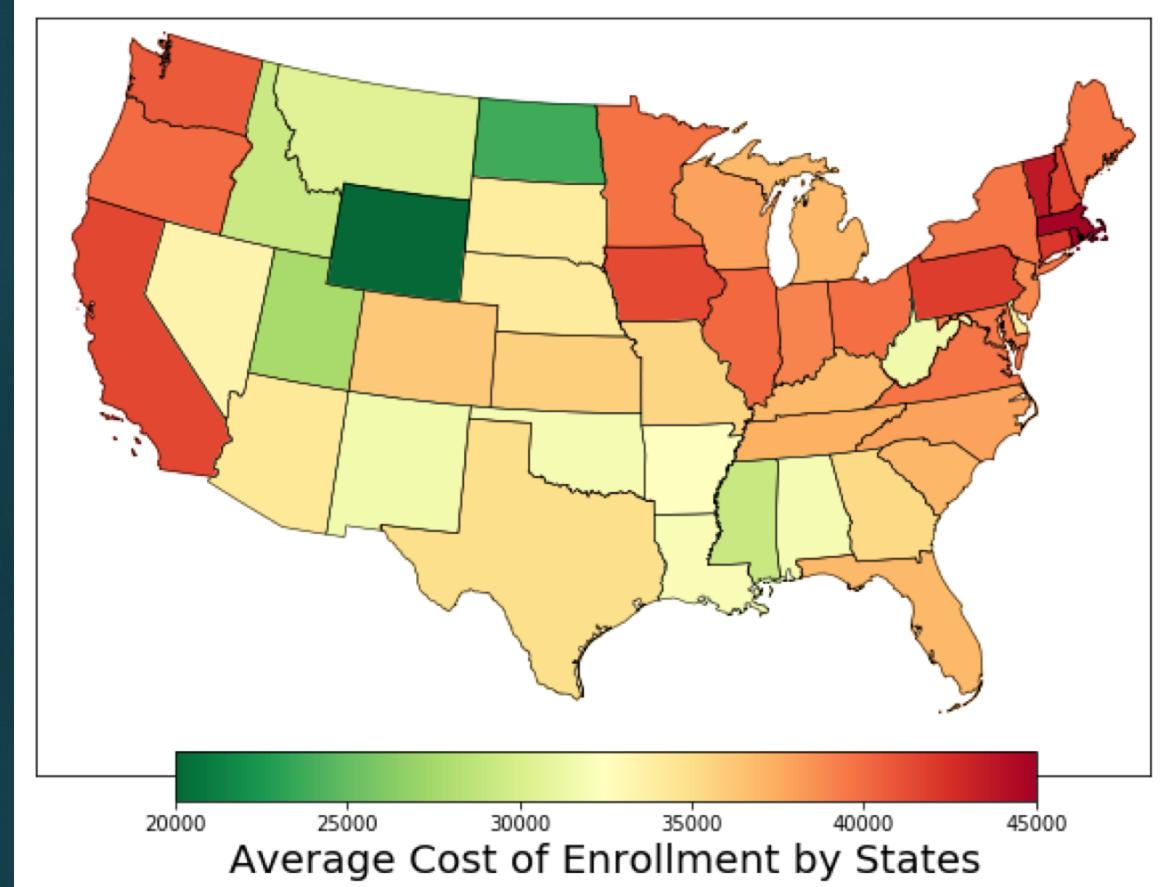
- ▶ How are availability of schools and cost of attendance vary by states and regions?
- ▶ How are racial diversities different by public vs private schools, or by regions?
- ▶ What are contributing factors for higher post-school earnings?

Differences in number of colleges by states



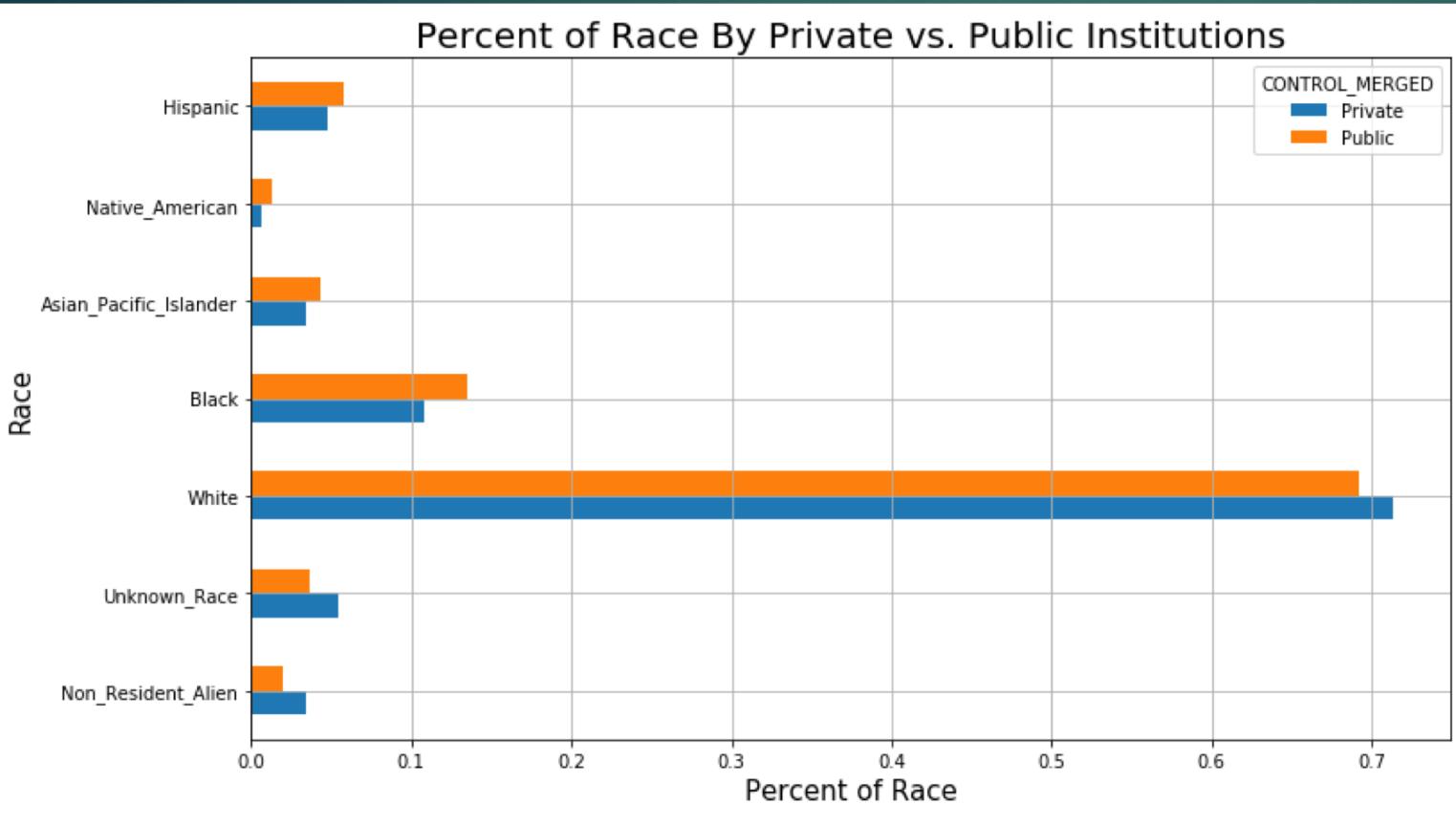
- ▶ States like New York and California have more than 150 colleges, whereas states like Wyoming and Montana has less than 10 colleges.
- ▶ Wyoming only has one 4-year-degree granting college for an estimated population of 584,910 people for 2016.

Differences in cost of enrollment by states



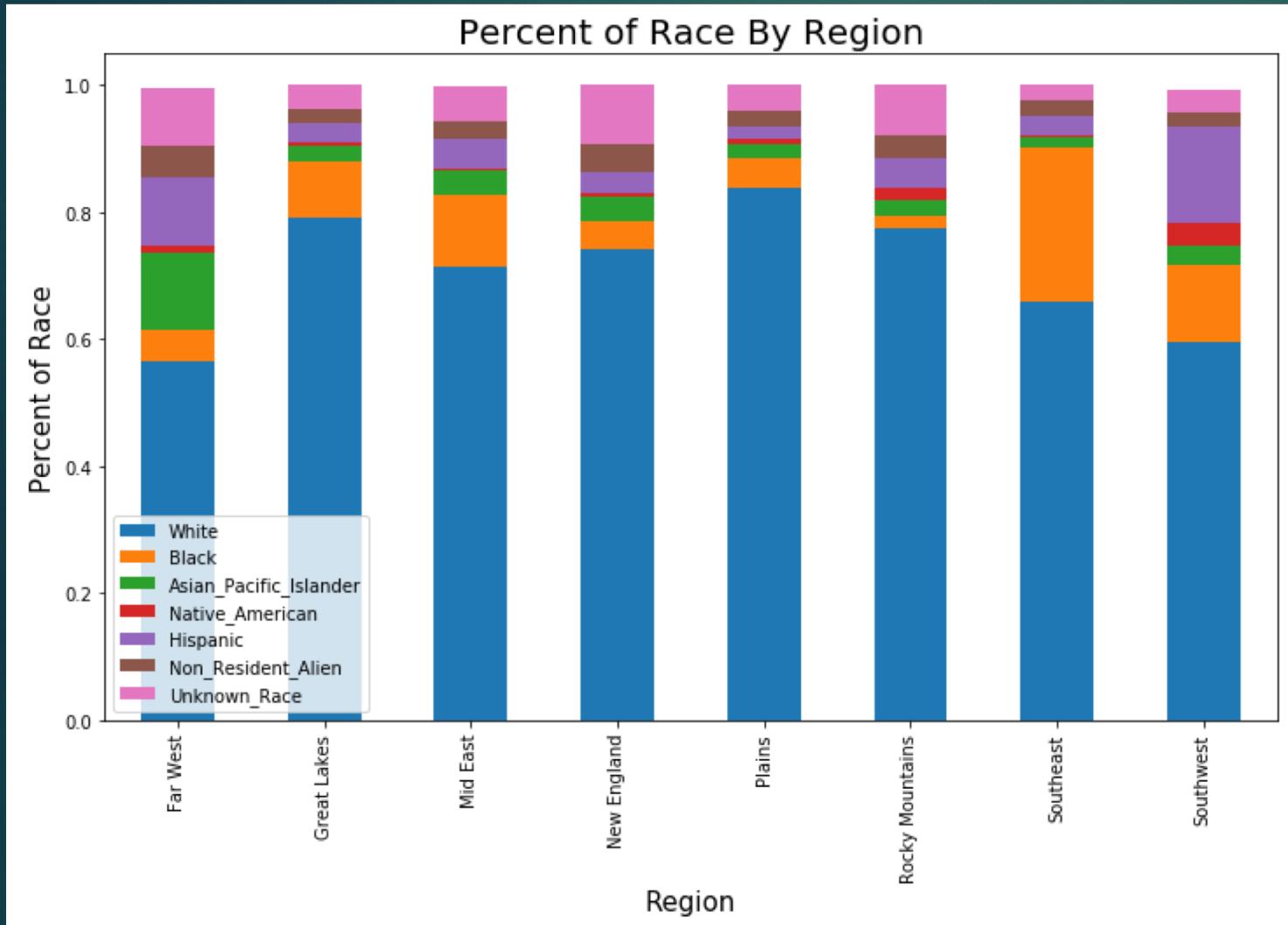
- ▶ The States of Washington and Oregon respectively have 32 and 31 colleges available(below average), while the average cost of attendance in these two states are significantly over average.
- ▶ Iowa has 35 colleges available for an average cost of \$38,331 per year while California has 155 colleges available for an average cost of \$38,607 per year.

Racial Diversity: Private vs Public Institutions



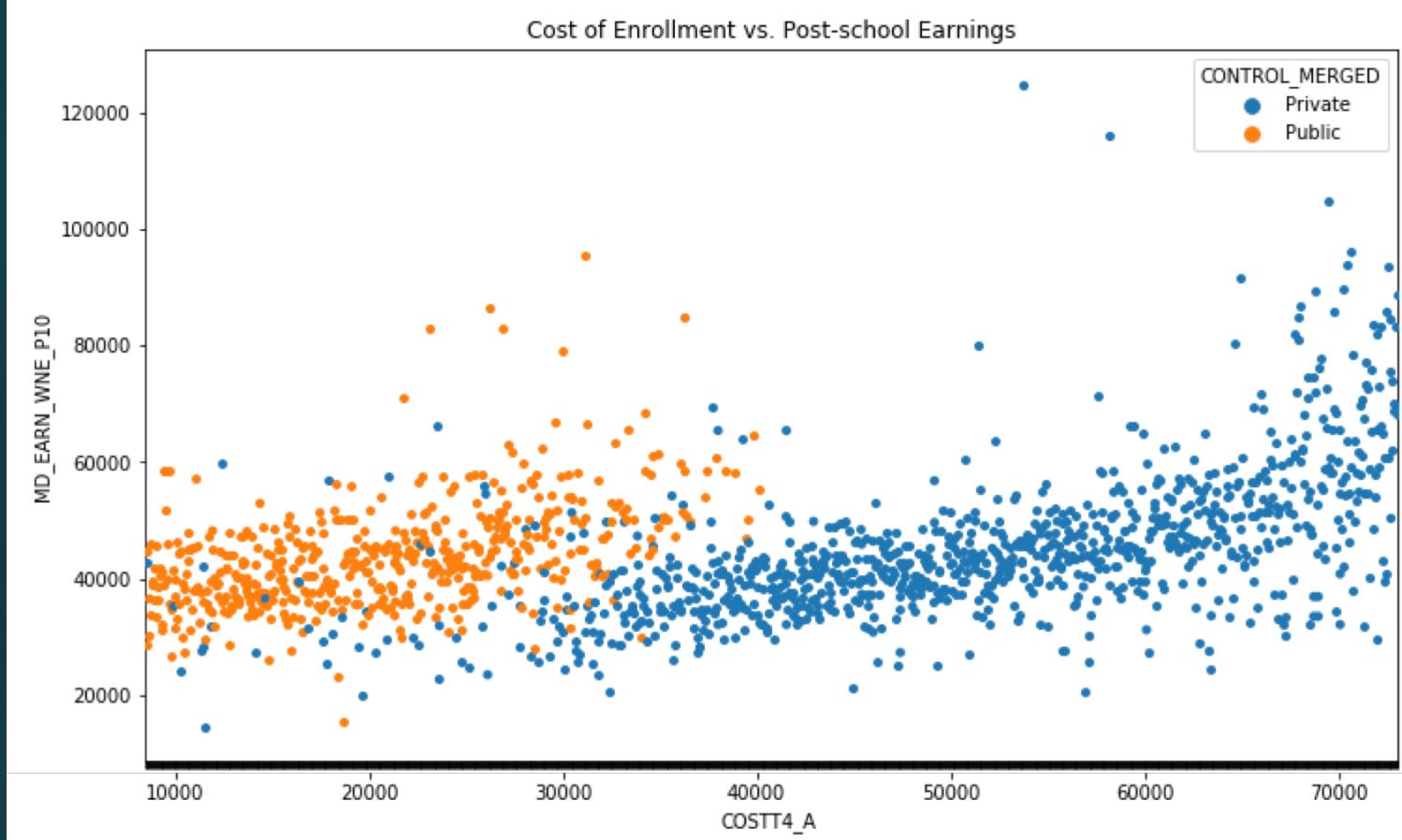
- ▶ In general, public schools have more racial diversity compared to private schools.
- ▶ Public schools, however, do have less Non_Resident_Alien percentage since they are mainly serving in-state students.

Racial Diversity: By different regions



- ▶ **Far West** Region, including AK, CA, HI, NV, OR, WA, have the most racial diverse student body.
- ▶ Both **Great Lakes** (IL, IN, MI, OH, WI) and **Plains** (IA, KS, MN, MO, NE, ND, SD) are less diverse compared to other regions of the country.

Cost of Enrollment vs. Post-School Earnings



- ▶ Besides the right tail of high cost of enrollment, there is no significant difference in post-school earnings between private and public schools.
- ▶ For both private and public schools, the cost of enrollment is a statistically significant indicator of post-school earnings.

Disclaimer: This is a very complex topic, and even if there is a strong relationship between tuition and earnings, it is too hard to claim that the relationship is causal. High tuition and high earnings could also simply coincide with high cost of living (something which could potentially be accounted for).

Conclusions

- ▶ There are significant differences in terms of education availability, education accessibility among US states and regions.
- ▶ Racial diversity is different among different regions.
- ▶ Cost of enrollment is an indicator for post-school earnings, however more comprehensive analysis needed to make the causal claim.

Thank you!