Module 10: Final Project
College Graduate Earnings and Debt

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Source: https://collegescorecard.ed.gov/data/

This project attempts to help prospective students filter down colleges by financial criteria. The goal here is to help students find a college that is a good value. We want to find universities that have graduates with high salaries and low debt. The data mentioned above comes from a credible source, the US Department of Education. We found the problem interesting because of the current trend of college tuition outpacing inflation and wage growth in the country. As the years go by, choosing a college based on tuition becomes more of an issue. Expected earning potential must be considered in combination with expected debt. This topic is interesting because we wanted to explore universities with the perspective of expected debt level. Two variables in particular were used from this data set in our exploration. One variable shows the median earnings of graduates that are no longer enrolled in school 10 years after their entry into that school. The other variable of note is the median level of debt of graduates on a university specific level.

The algorithm we use goes through several steps before providing an answer. First, the data is imported into Python. Next, the data is cleaned by removing null values and replacing string values with the appropriate integer equivalents. A new debt ratio variable is created by dividing expected earnings by expected debt. We then group expected earnings by state, to find a general idea if the state provides university education of value. After the grouping is complete, a function accepts a state abbreviation input and compares that state's debt ratio with the national debt ratio. The function tells the user what percentage higher or lower that state's debt ratio is compared to the national debt ratio.

We created a bar graph of the top 10 universities based on debt ratio. These schools had the widest margin between expected earnings and expected debt level.

Graduate Debt Ratio
by University/College
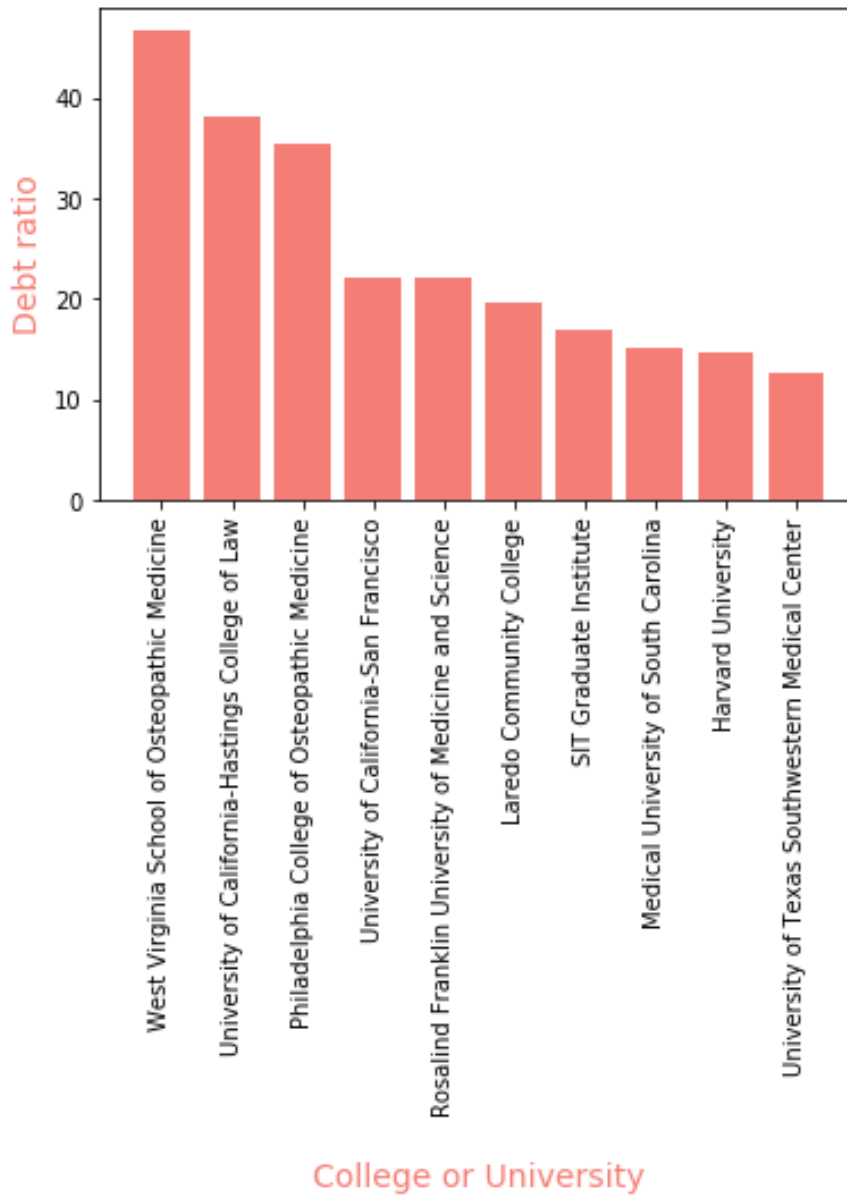
Not surprisingly, several medical and law schools show up at the top. Harvard University lives up to its name recognition and shows that it is still a good value.