

Problem Statement :

How to improve the SAT participation rate based on the data provided on SAT/ACT score 2017/2018.

Executive Summary:

Through the course of this project, executed and documented the process of cleaning and organizing data in our Python Pandas DataFrames, and plotting data to extract meaningful insights.

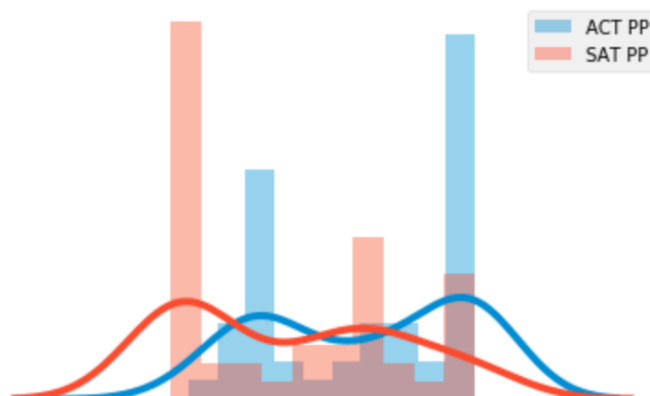
Data is displayed both in queried tabular form as well as in Histograms, Scatter Plots, and Box Plots from Python's Seaborn/Matplotlib visualization libraries.

Through these displays, we identified a strong growth opportunity for the College Board in the states of **Iowa** , **Alaska**, **New Mexico** , where the overall participation rate in the SAT/ACT exams are lesser than 80%

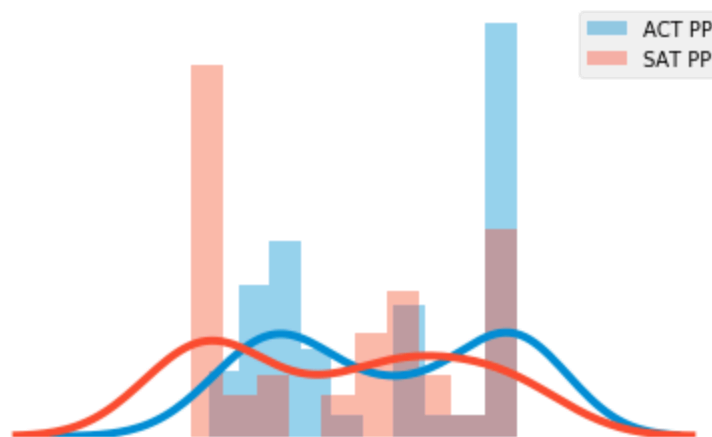
Observations:

1) SAT is getting popular based on below PDF comparison between 2017 and 2018 data

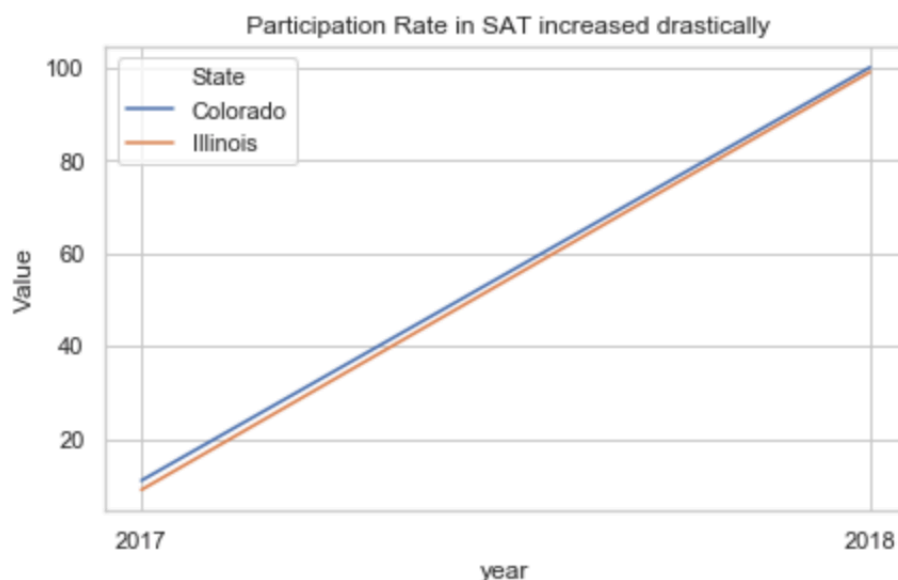
2017 Participation rate PDF Comparison between SAT and ACT



2018 Participation rate PDF Comparison between SAT and ACT



2) Two States (Colorado & Illinois) , where the participation rate in SAT increased drastically from 2017 to 2018. Colorado and the College Board partnered to administer the SAT as the state's accountability exam and every junior will now take a new four hour exam. In same way , Illinois also mandated the SAT exam.



3) The participation rate and average scores have strong negative co-relation. So computing statistics on mean value of scores would not give fruitful insights.

Recommendation:

The SAT board can be recommended for the states Iowa, Alaska, New Mexico which has lower participation rate.

References :

<https://www.washingtonpost.com/education/2018/10/23/sat-reclaims-title-most-widely-used-college-admission-test/>

<https://blog.prepscholar.com/act-vs-sat>