DSI Project 1

Analyze trends in SAT & ACT scores from 2017 - 2018 and make recommendations to increase SAT participation

Table of Contents

1. Problem Statement
2. Project Objectives
3. About Client
4. Impact of SAT School Day
5. Key Findings
6. Targets for improvement
7. Recommendation

Problem Statement

- College Board would like to have a high amount of SAT participation rate in America
- Looking at the data, it can be said that there is a huge difference in participation rate across the states
- This project will look into the states with low SAT participation rate, looking for information within the dataset and external research, to suggest which of the states is best to target in order to increase participation

Project Objectives

- Visualise data gathered from SAT participation rates in 2017 and 2018
- Identify trends in datasets
- Select a state to target in order to increase SAT participation
- Support recommendations with data and additional research

About Client

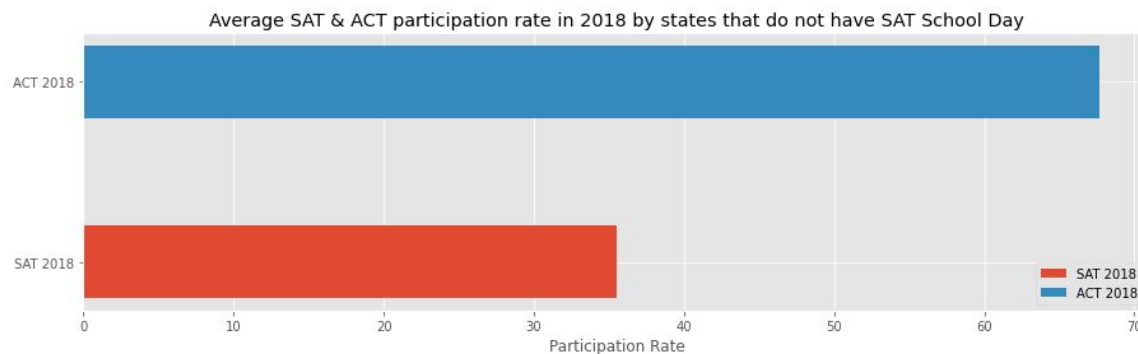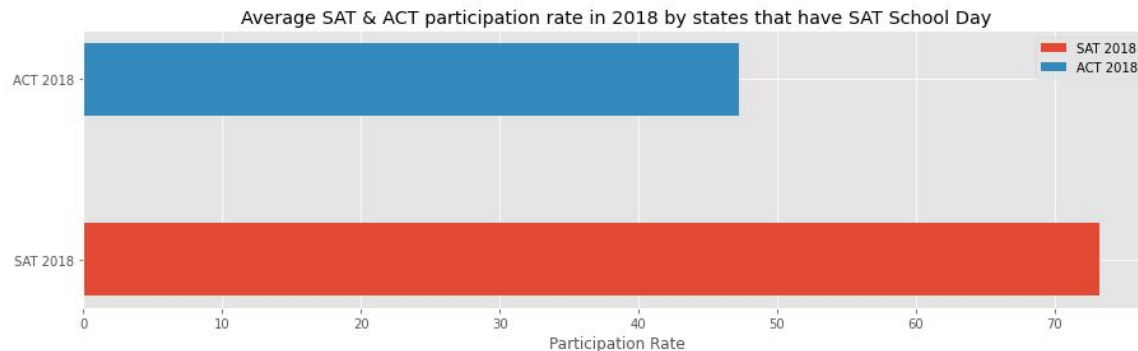SAT and ACT are the two popular college admissions exams for students in USA.

Benefits for taking SAT:

- Builds skills over time
- Helps students plan their careers
- Connects students to scholarship opportunities
- https://collegereadiness.collegeboard.org/about/benefits

SAT is comparatively cheaper then ACT test

- ACT = $55
- SAT = $52
- https://www.discover.com/student-loans/college-planning/prep/applications/act-vs-sat-whats-the-difference#:~:text=As%20of%20July%202020%2C%20the,each%20depending%20on%20the%20subject.

Impact of SAT School Day

Average SAT & ACT participation rate in 2018 by states that have SAT School Day

Average SAT & ACT participation rate in 2018 by states that do not have SAT School Day
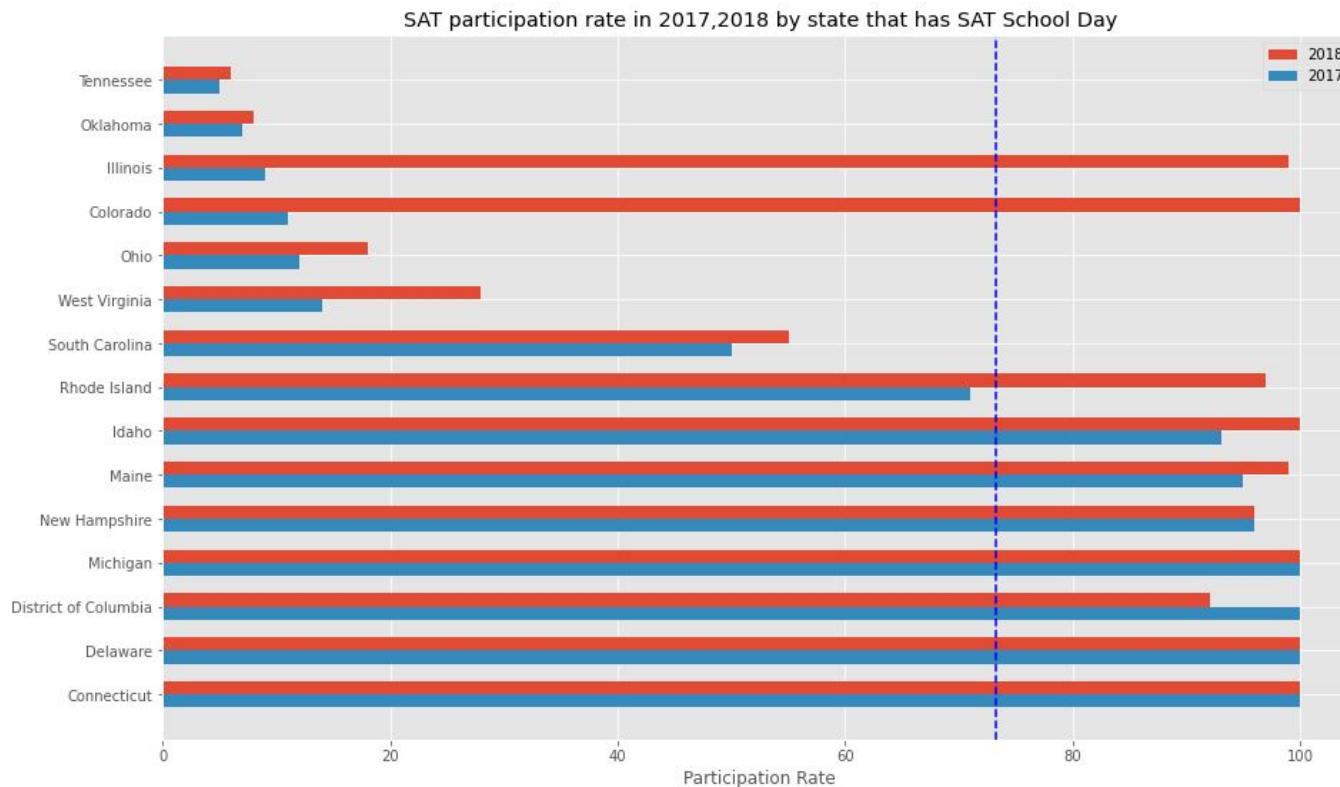
Key Findings

Based on observations, I have identified the following states to be interesting:

- Illinois (largest increase in the number of participation for SAT test)
- Colorado (2nd largest increase in number of SAT participation, and largest decrease in ACT test participation)
- Michigan, Delaware and Connecticut have the 100% SAT participation for both years
- Illinois and Colorado also see the most score changes in SAT and ACT(significant drop in SAT and very slight improvement in ACT

Key Findings

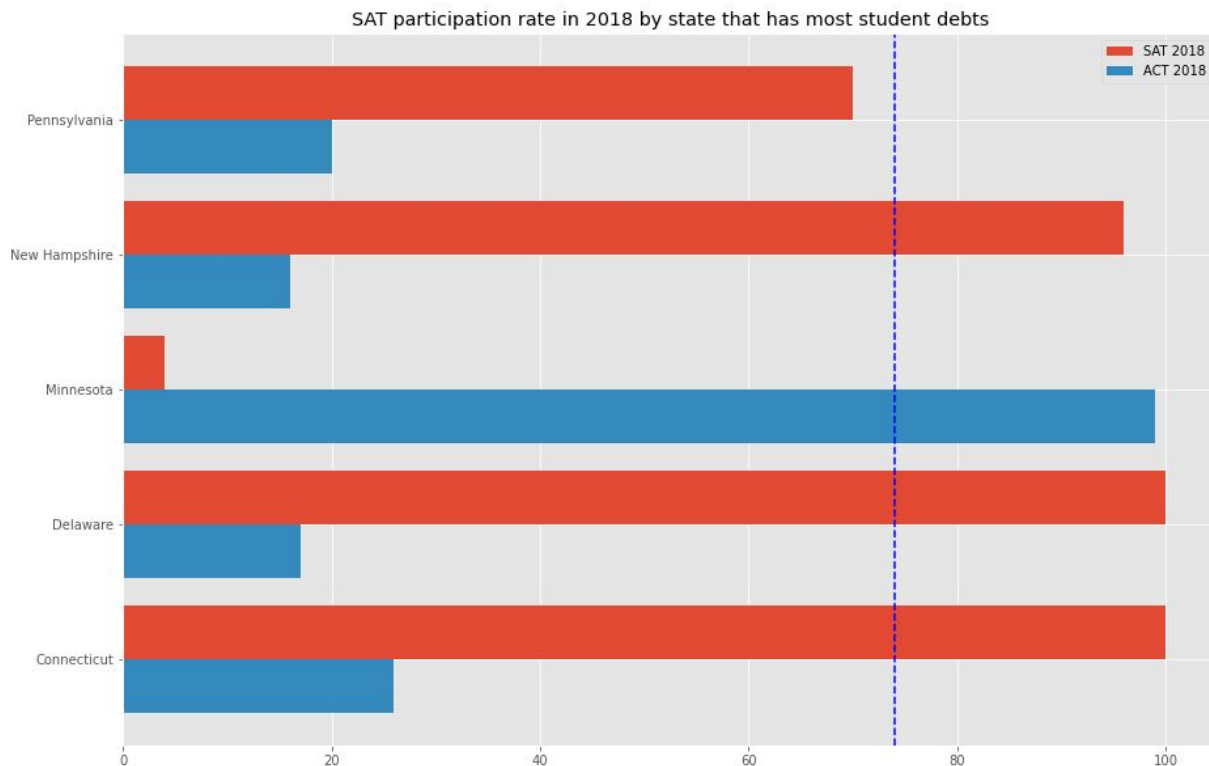SAT participation rate in 2017,2018 by state that has SAT School Day

Targets for Improvement

There are a few states that we can target to further improve the participation rate of SAT, through additional funding. There is also district that do not require ACT, therefore they may be more willing to opt for SAT School Day Program.

- District of Columbia: largest decrease of participation rate from 2017 - 2018, 8% drop
- States already in SAT School Day with low 2018 participation: Oklahoma, Ohio, South Carolina, Tennessee, West Virginia
- Arkansas and Minnesota has the very low SAT participation rate compared to their high ACT participation in both years despite being offered both test and is not necessary to graduate. We can consider approaching these states to be part of SAT School Day to see if we can increase the participation rate of SAT.
- States with high student debts tend to have higher sat participation rate, as SAT school day offer free SAT test.

Targets for Improvement

SAT participation rate in 2018 by state that has most student debts

Recommendation

Ideally I would look for states that has a higher student debt and has low SAT participation(provided that ACT is not mandatory in the said state)

My recommended state will be Minnesota, the reason being:

- Not compulsory to take the ACT, but have to take either test to graduate
- High student debt, would be more willing to take part in SAT school day
- Has low SAT participation, therefore higher chance of participation growth