
To ACT or to SAT



That is the question..



Problem Statement

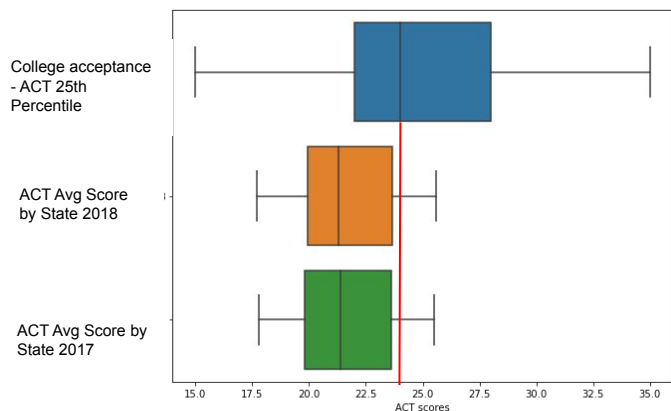
As a guidance counselor in a high school, a major stress point for students is whether they will be able to enter college. Students would ask if they should take SAT or ACT to enter into a college.

In this project, I would like to explore if taking SAT or ACT allow for students to enter colleges easier.

Methodology

- 1) Taking the average scores attained by states for both SAT and ACT in 2017 and 2018.
 - a) Extra symbols such as % were removed and converted to numbers
 - b) Checked through the values with the data source and rectify any errors found.
- 2) For the 4 different sets of data, merged based on the common column States.
- 3) Then using the data from SAT_ACT_by_college
 - a) Separate the 25th percentile of ACT and SAT by each colleges.
- 4) Compare the Interquartile Range of the 25th percentile of acceptance with the average scores by state.

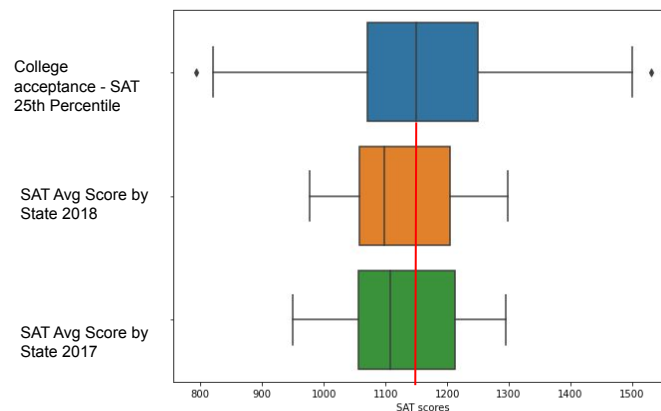
Findings



Median of 25th percentile college acceptance for ACT: 24.00

IQR of Avg Composite score for

- 1) 2017: 19.8 - 23.6
- 2) 2018: 19.95 - 23.65



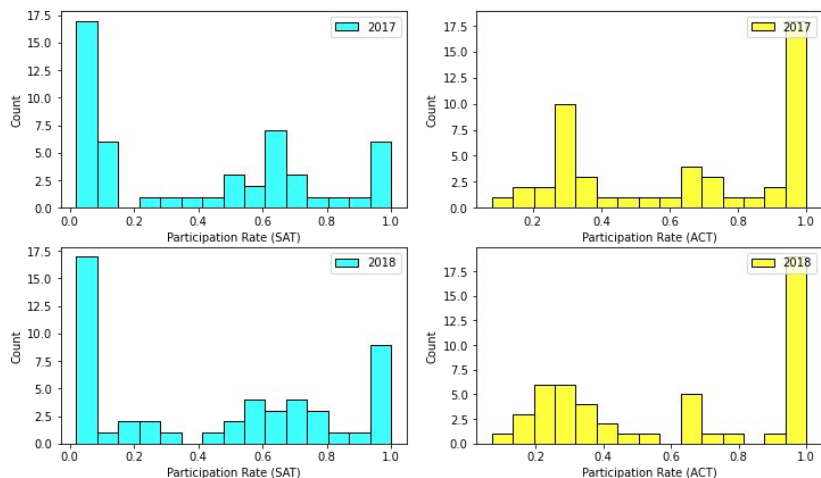
Median of 25th percentile college acceptance for SAT: 1150

IQR of Avg Composite score for

- 1) 2017: 1055.50 - 1212.0
- 2) 2018: 1057.5 - 1204.0

Findings

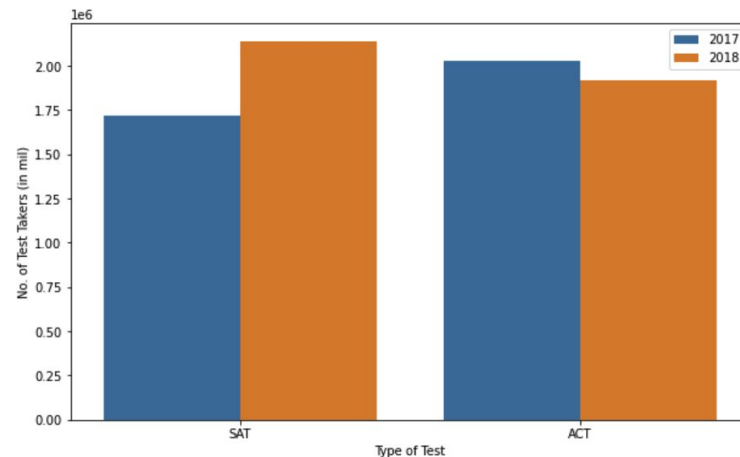
Participation Rates for SAT and ACT by states



Based on this histogram, it can be seen that more states had mandated to take ACT instead of SAT.

16-17 states mandated to take ACT compared to 4-5 states mandating to take SAT

No. of Test Takers for SAT and ACT



However, SAT still remains a popular choice for students as the number of test takers are still approximately the same for both SAT and ACT.

With the number of test takers for SAT and ACT being relatively similar, it is unlikely that the data is being unfairly skewed against the ACT test takers.

Recommendations

- It is generally easier for students who took SATs to be accepted in a college compared to the students who took ACTs.
- Hence, I would recommend that students to take SATs over ACTs.
- However, students should still focus on ACT if the state mandates taking ACT and only attempt to take the SAT if they are confident in splitting their attention
- I would also feedback to the various colleges on the apparent disparity between SATs and ACTs



Future Investigations

- To further investigate on the number of students that were accepted by colleges with ACT scores or SAT scores or both.
- Whether college majors would also exhibit similar disparities between ACT and SAT scores.