Recommendations for increasing SAT participation in the U.S.

Background information

- For the past decade, the SAT has been facing fierce competition from the ACT.
- Between 2012–2017, the ACT had overtaken the SAT as the most widely taken college admissions test in the U.S.
- The SAT regained its dominance in 2018 (2 mil took the SAT vs. 1.9 mil for the ACT)
 after the College Board made a major revamp to the SAT format to increase its
 relevance and changed its marketing strategy to securing statewide testing contracts.

Problem Statement

Moving forward, how can the College Board continue to increase participation in the SAT and widen its lead over the ACT?

Methodology

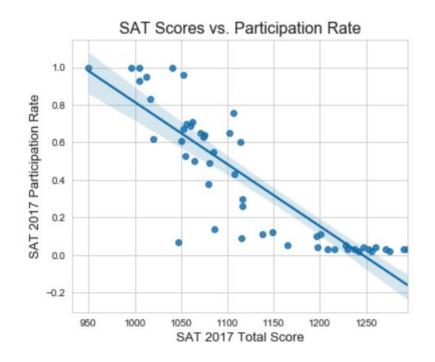
An analysis was conducted on the ACT and SAT scores and participation rates by state in 2017 and 2018 to identify a specific state that the College Board can target to drive higher SAT participation.

Key findings

SAT Total Score and Participation Rate are inversely related

Generally, when participation rates increase, the average scores declines because a wider range of students, with a wider range of academic ability, submit tests for scoring.

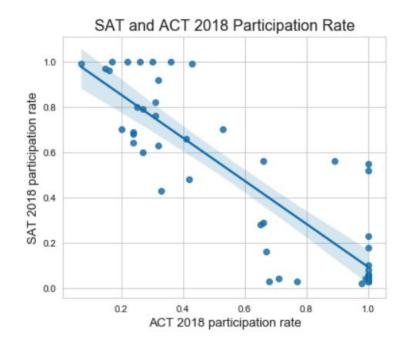
When a test is not mandatory, the students who choose to take the test are those who are motivated to achieve a high score in order to enter a good college, thus we will see higher scores on average.



SAT and ACT participation rates are inversely related

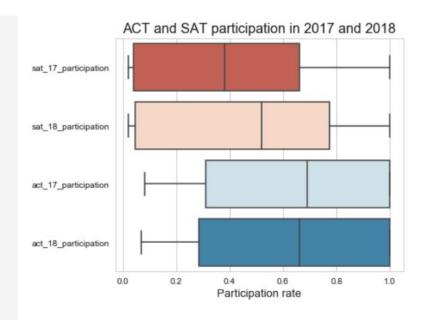
SAT and ACT participation rates have an inverse relationship, as seen from the general downward sloping trend in the scatterplot.

This is expected as the two tests are usually substitutes of one another, thus a higher participation in one test would see a lower participation in the other.



There were more SAT than ACT test-takers in 2018, but ACT still enjoys greater popularity in more states

- As seen from the boxplot, the ACT had a higher participation rate in 2018. However, the SAT actually had more test-takers (2 million took the SAT compared to 1.91 million for ACT).
- This is possible because 1/3 of all U.S. states have a 100% ACT participation rate. These states may have a smaller population, resulting in a lower absolute number of ACT test-takers.
- Still, what's important to note here is that the ACT has greater popularity in more states than the SAT.



ACT vs. SAT preference in the U.S. by state (2018)

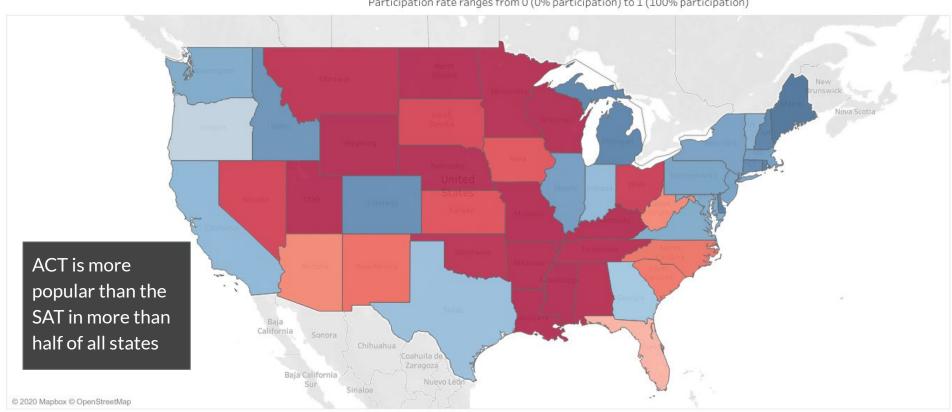
RED indicates ACT preference, BLUE indicates SAT preference



ACT/SAT preference score calculation

= SAT 2018 participation rate - ACT 2018 participation rate

Participation rate ranges from 0 (0% participation) to 1 (100% participation)



State regulations strongly influence test participation rates

- In the past few years, the College Board had aggressively underbid the ACT to win state contracts and they were successful in capturing market share from ACT in Colorado and Illinois, which were previously longstanding ACT-taking states.
- SAT participation rates shot up in both states after the SAT became a requirement.
- As part of high school accountability, the SAT was state-funded for students to take for free.

PARTICIPATION RATES

Illinois

- SAT: **9%** in 2017 to **99%** in 2018 (+90%)
- ACT: **93**% in 2017 to **43**% in 2018 (-50%)

Colorado

- SAT: **11%** in 2017 to **100%** in 2018 (+89%)
- ACT: **100%** in 2017 to **30%** in 2018 (-70%)

Free testing significantly boosts participation rate

- As seen previously, state-funding dramatically boosted SAT participation in Illinois and Colorado as students were more likely to take the free SAT than the paid ACT.
- The College Board would do well to target states that are already funding the ACT or other college admission tests and convince them to adopt (and fund) the SAT instead.
- This would allow the SAT to be taken by a wider group of students, e.g. students from lower-income families who would not have taken the SAT if it were not free and state-required.

Final recommendation

Ohio is an ideal state to target next

- **Large population:** Ohio is the 7th largest state in the U.S., so there is a sizeable number of new test-takers that the College Board can acquire.
- Relatively low current SAT participation rates: From 2017 to 2018, Ohio increased both its ACT and SAT participation after it became compulsory to take either test. However, the increase was larger for the ACT, i.e. from 75% to 100%, whereas for SAT it was from 12% to 18%. Thus, there is still considerable room for growth for the SAT.
- High state debts: In 2017, Ohio had the 10th highest amount of state debt. If the College Board
 employs the same strategy of underbidding ACT, Inc. and make the cost of implementing the SAT
 lower compared to the ACT, they would increase their chances of persuading the Ohio Department
 of Education to adopt the SAT statewide.
- Free to take the ACT or SAT: The ACT and SAT are already free for public school students to take.
 Thus, the main task left for College Board is to explain to the Department of Education why it would be more beneficial for students to take the SAT instead of the ACT.