

Changing Participation Rates of College Entry Exams

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General Assembly DSI
July 31, 2020

Goals of this analysis

In 2016, a new format was adopted for the standardized college entrance exam, SAT. In order to understand how this change has affected participation in this exam, we analyze how scores and participation differ from one state to another, and how these change over time. In doing so, we seek to understand the factors underlying differences in participation rate.

It is important to note that the data presented represents scores and participation by state averages. Since state population and participation both vary greatly, the statistics are not representative of students' performance or participation nationwide.

Data and sources

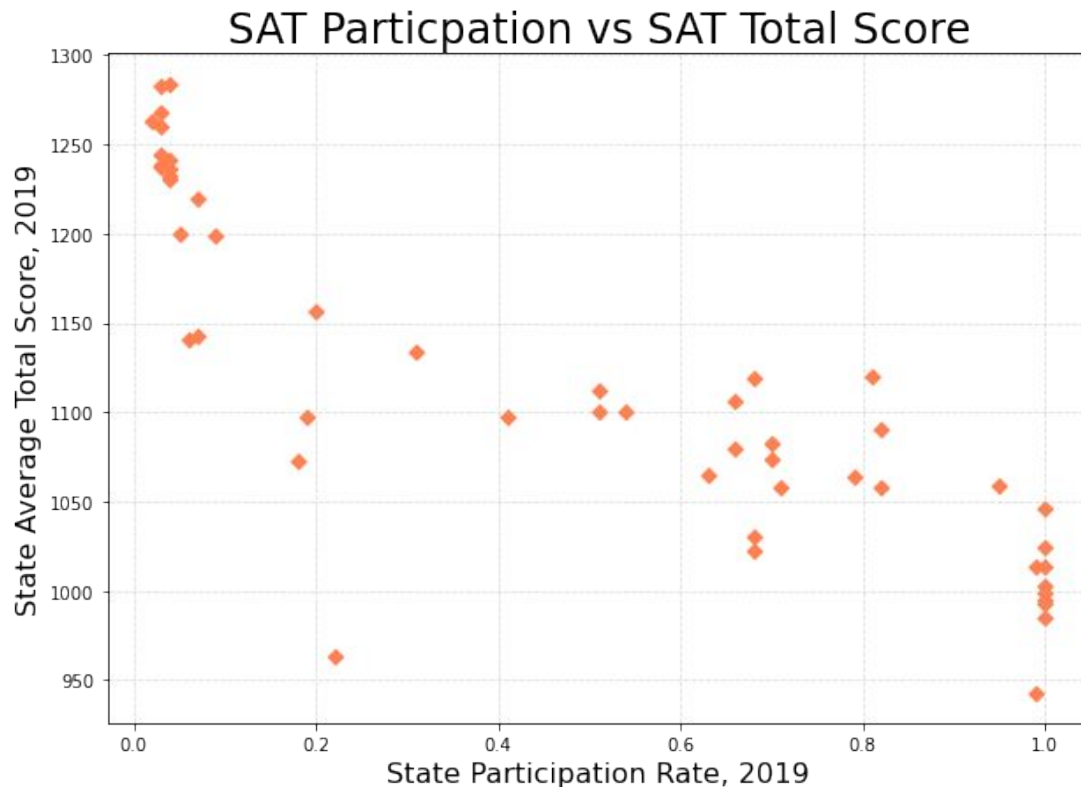
Data was compiled from the organizations that administer the SAT and ACT tests, the College Board and ACT, respectively. Data was cleaned for inconsistencies and entry errors, compared to available online data to ensure accuracy, and compiled together to facilitate a thorough analysis. The analysis and visualizations were done in Python using Jupyter Labs.

Information about state education policies comes from these local sources:

- *The Post and Courier* (Charleston, SC)
- *The Oregonian* (Portland, Oregon)
- *Charleston Gazette-Mail* (Charleston, WV)
- *The Orlando Sentinel* (Orlando, FL)

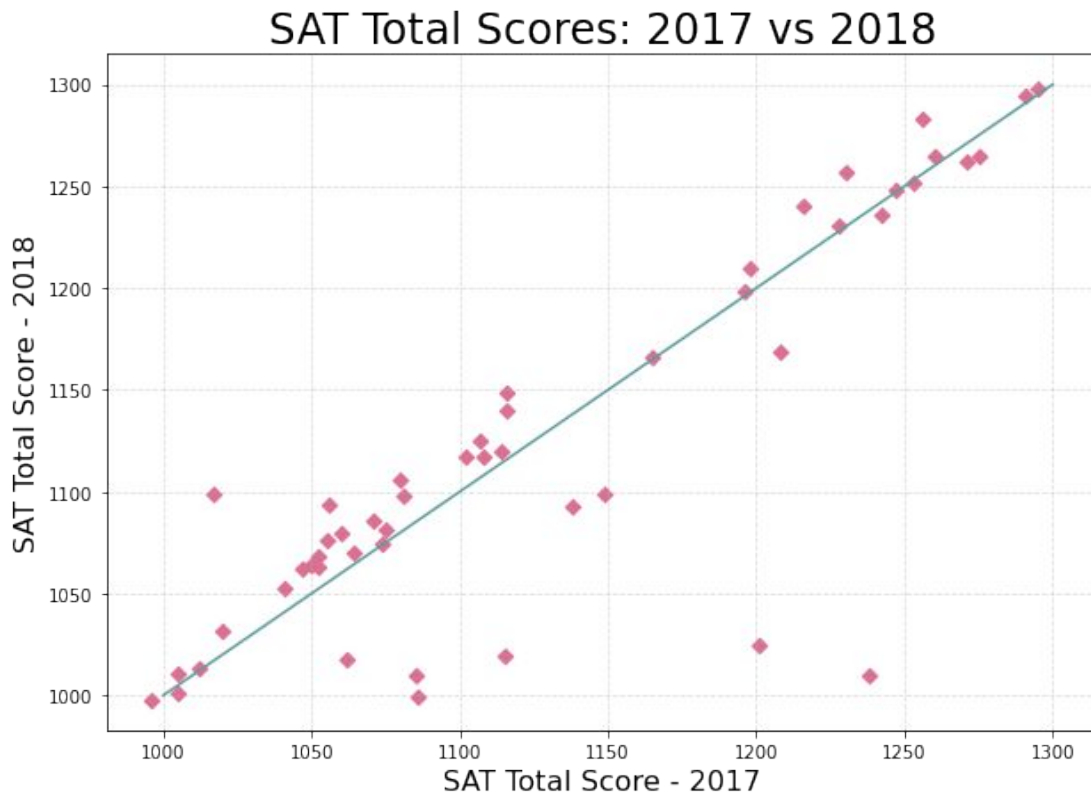
Higher participation rates lead to lower scores

- The highest-scoring states had very few students taking the test.
- These are likely the most studious and motivated students taking the test in states with ACT requirements.



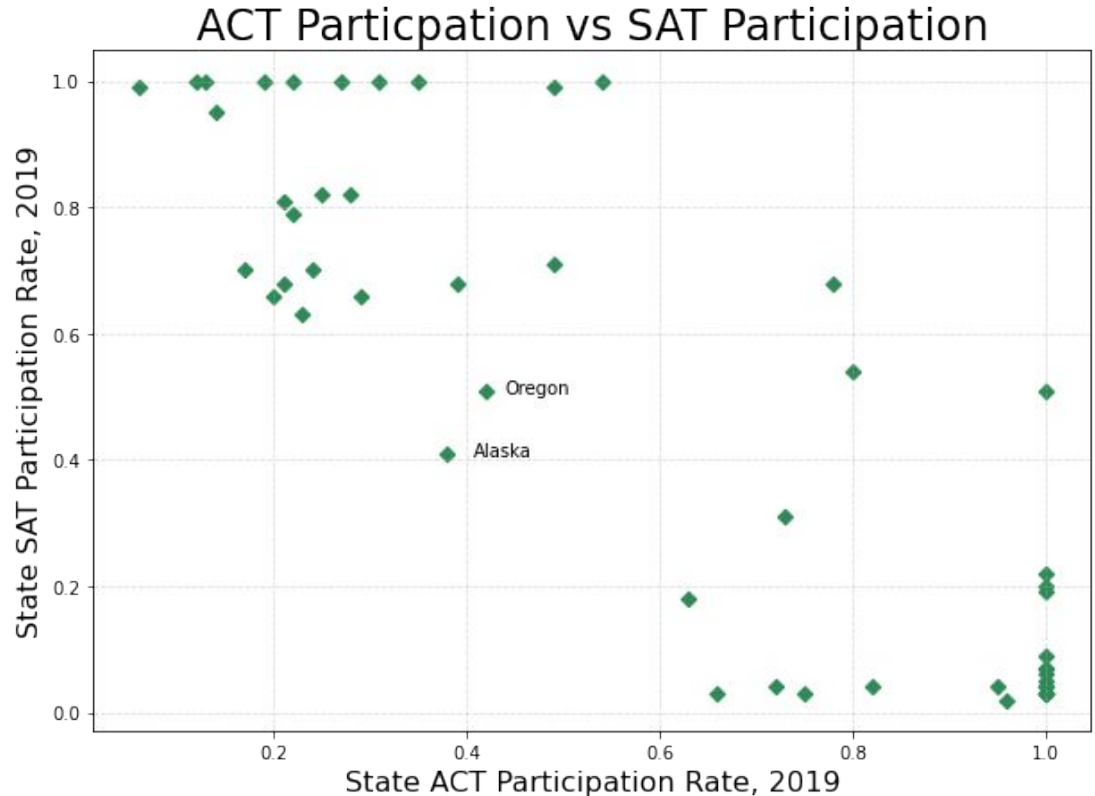
Scores are mostly consistent between years

- Scores above the blue line show an increase in score from one year to the next, scores below the line show a decrease.
- Between 2017 and 2018 many states added SAT requirements to graduate.
- Overall, average state scores changed little.



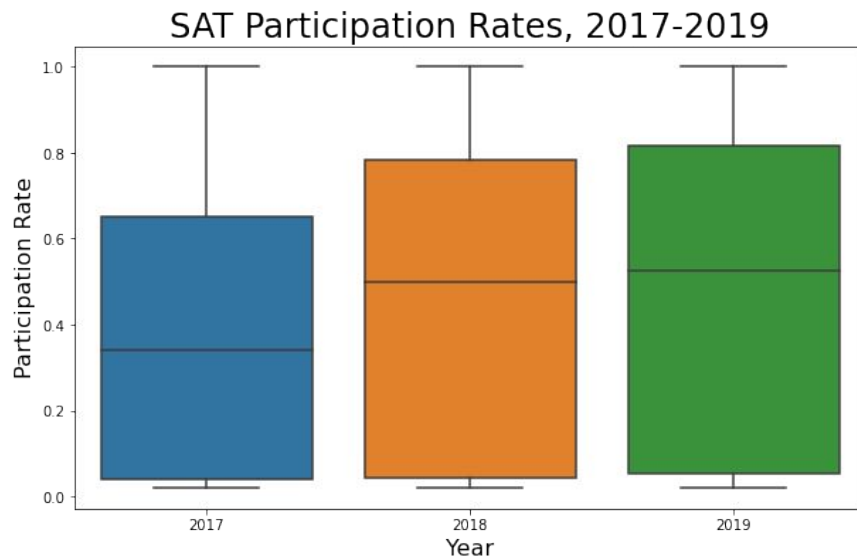
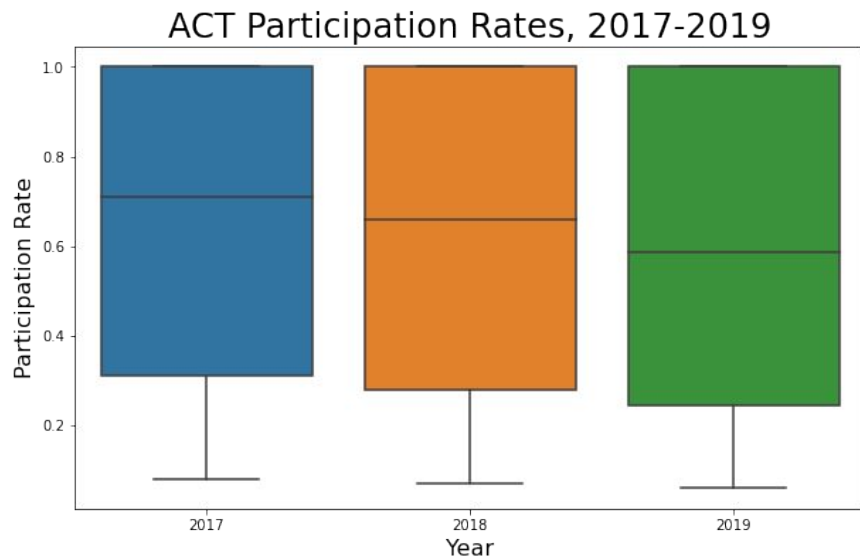
ACT and SAT participation rates are related

- Higher participation in one test is correlated with lower participation in the other.
- Alaska and Oregon are the only states with less than 60% participation in both tests.
- Many Oregon schools are not requiring entry exams.



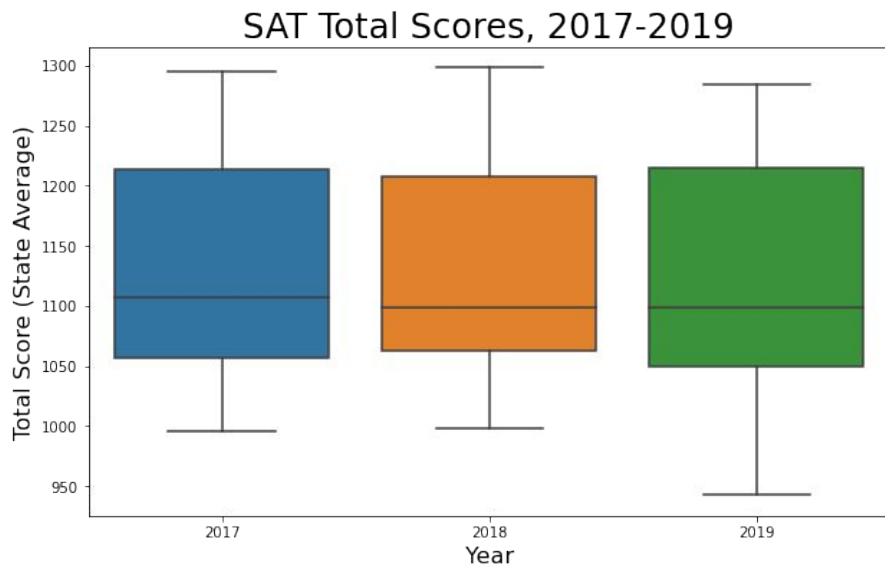
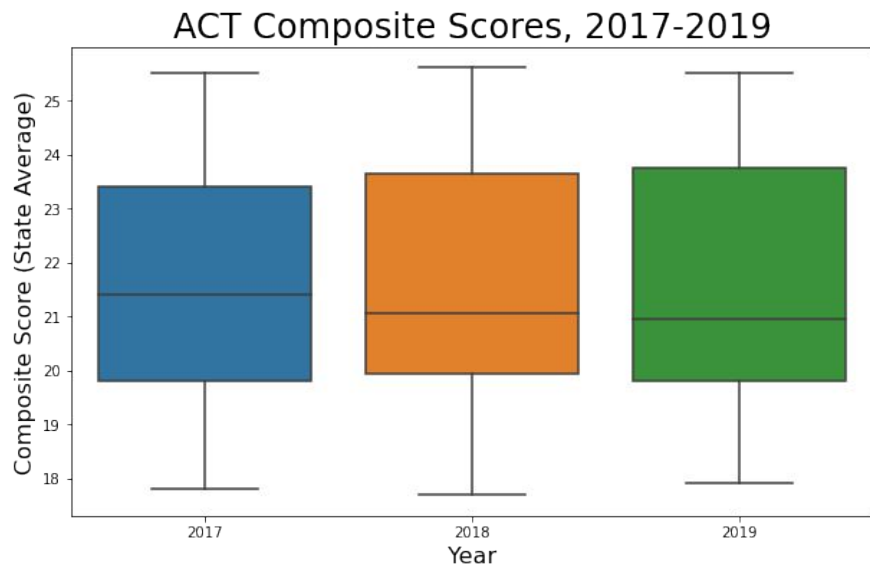
Average yearly participation rates, ACT and SAT

ACT participation has declined, while SAT participation has increased.

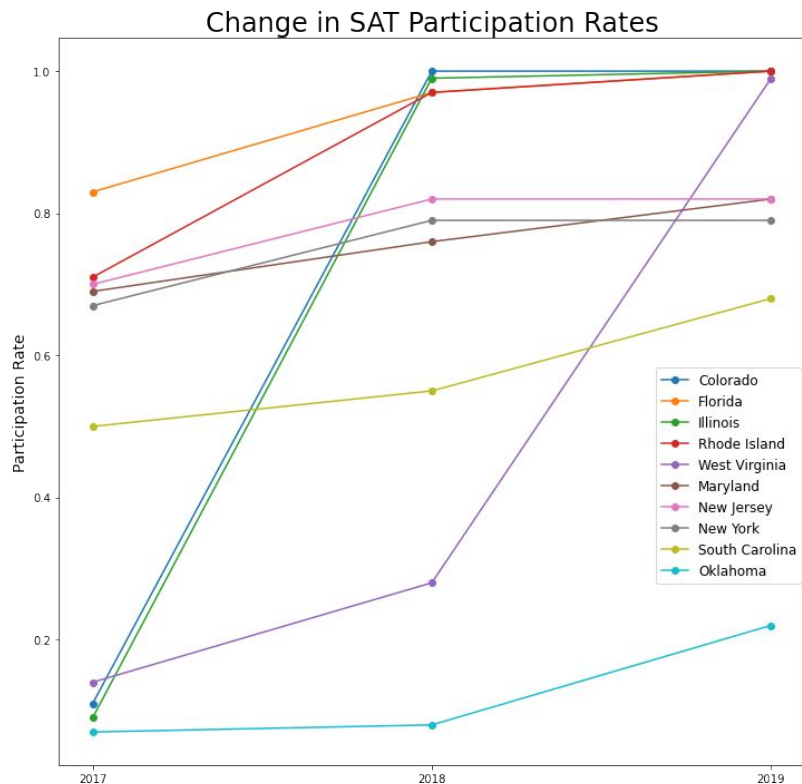


Average yearly scores, ACT and SAT

ACT scores changed slightly as participation declined, while SAT changed little.

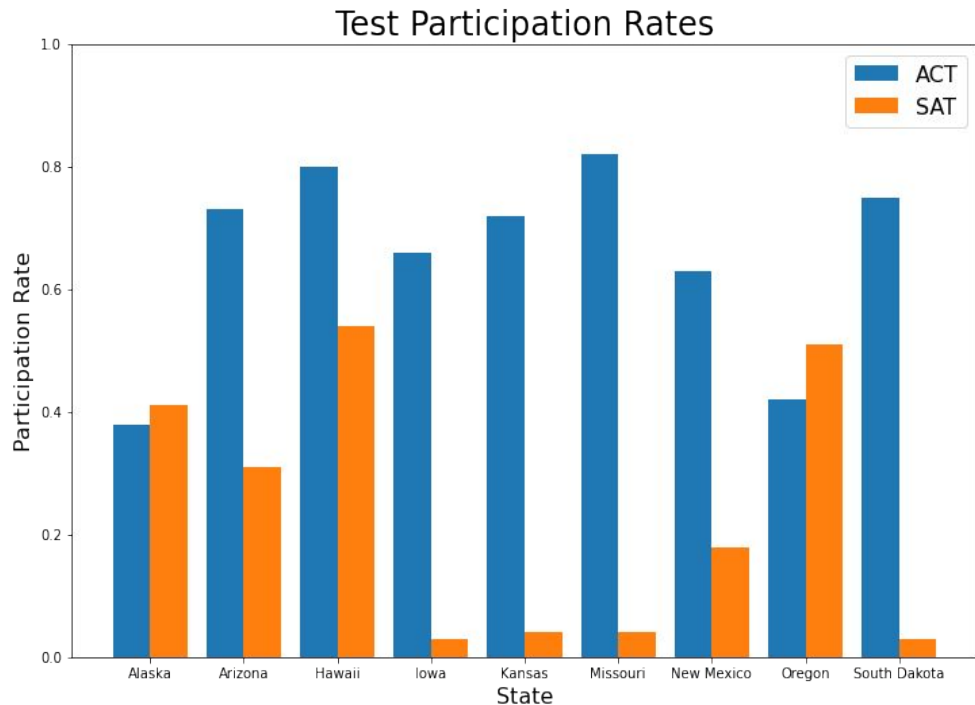


States with the greatest increase in SAT Participation



- These are the states with a gain of at least 10% participation in the last three years.
- Some states, like West Virginia and Florida, began requiring high school students to take the SAT.
- South Carolina changed their graduation requirements, allowing students to take the SAT or ACT rather than only the ACT.

States with potential for growth in participation



- These states all have <60% SAT participation, but less than 90% ACT participation.
- Unlike states that require students to take a test, these states have many students who opt to not take either test.
- Iowa, with low overall participation but high scores, may be a target for the future.

Actions to support further increases in participation

1. Continue to encourage states to adopt measures requiring student to take the SAT in order to graduate. States that have enacted these requirements saw the highest increases in participation.
2. For states that already have ACT requirements, encourage these states to follow South Carolina in allowing students to take the SAT to meet requirements.
3. Reach out to students and educators in the states with low overall participation rates to encourage more students to take the SAT.