

College Entrance Exam Participation:

Analysis of 2017 SAT and ACT datasets

Caitlin Streamer

SAT and ACT exams remain the standard for college applications, however, most colleges don't require one over the other

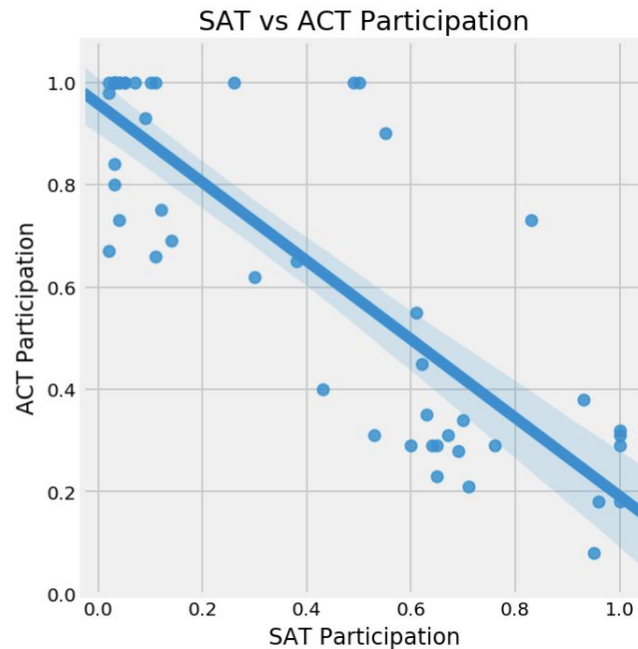
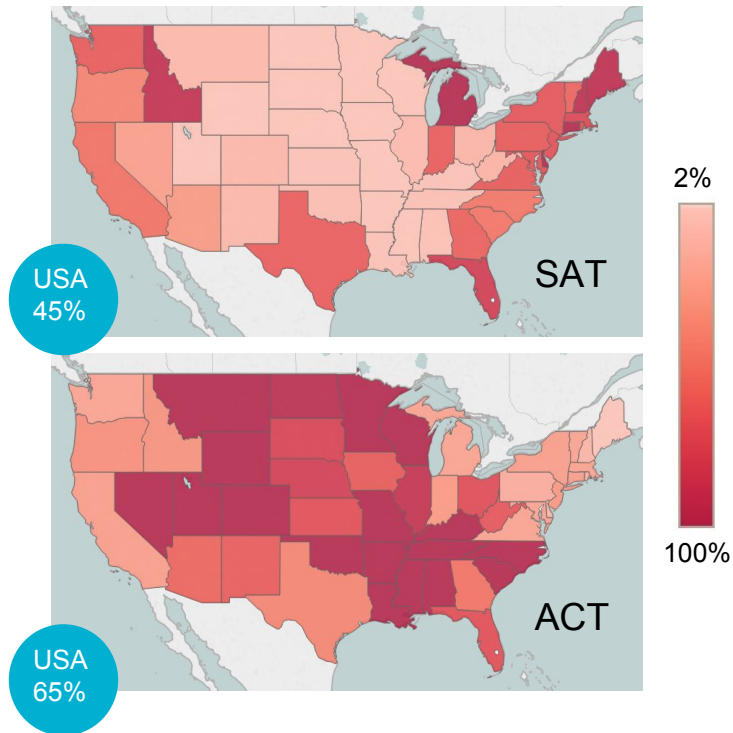


Registration Cost	\$60	\$62.50
Total Score	400 - 1600	1 - 36
Subject Score	200 - 800	1 - 36
Subjects	Math Evidence-Based Reading and Writing	Math Science English Reading

The **SAT test format was changed** in March, 2016 making it **more similar to the ACT**

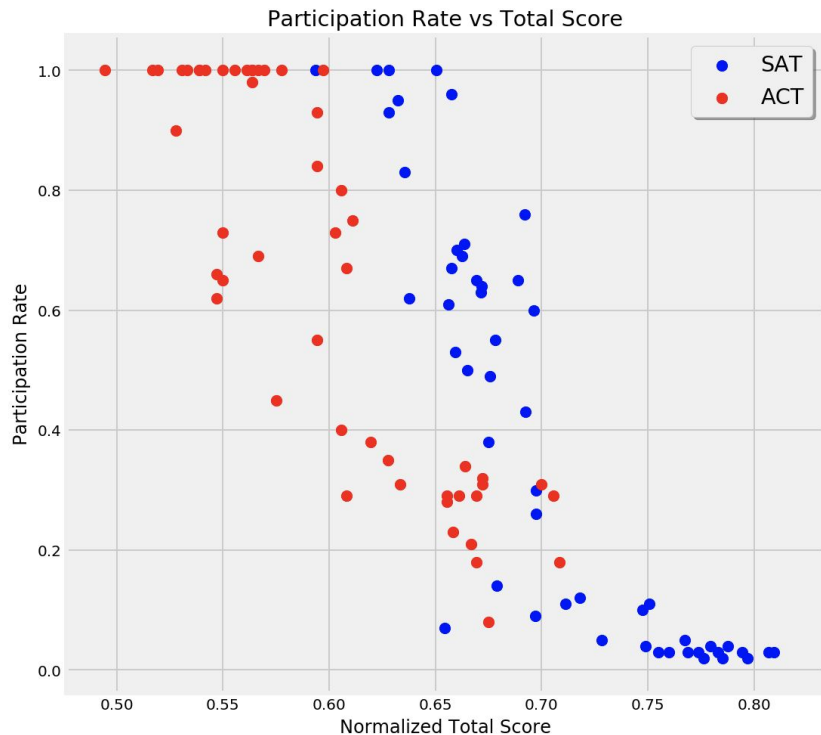
SAT participation rates lagged behind the ACT in 2017

Mean Participation Rates per State



Students are **favoring one test over the other** in each state.

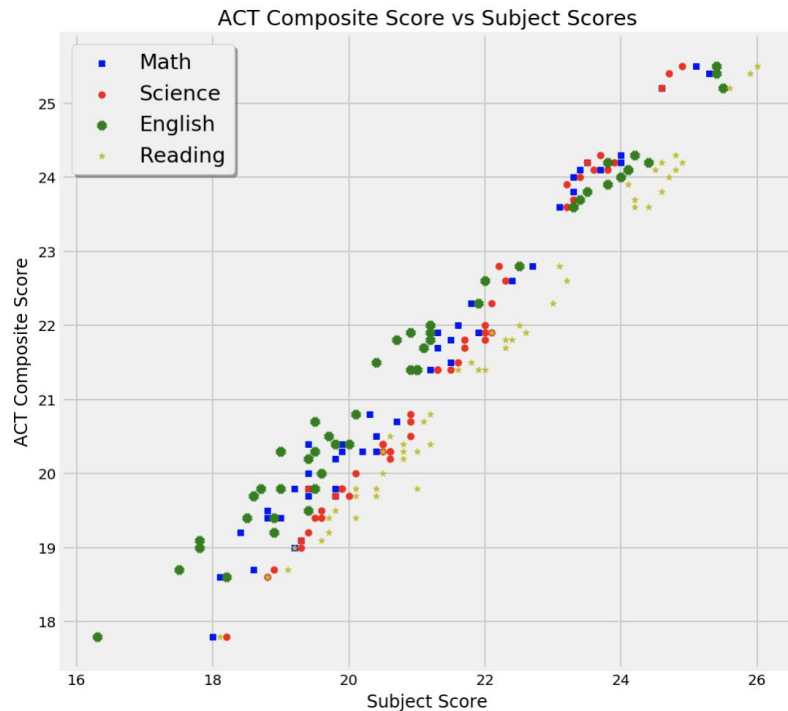
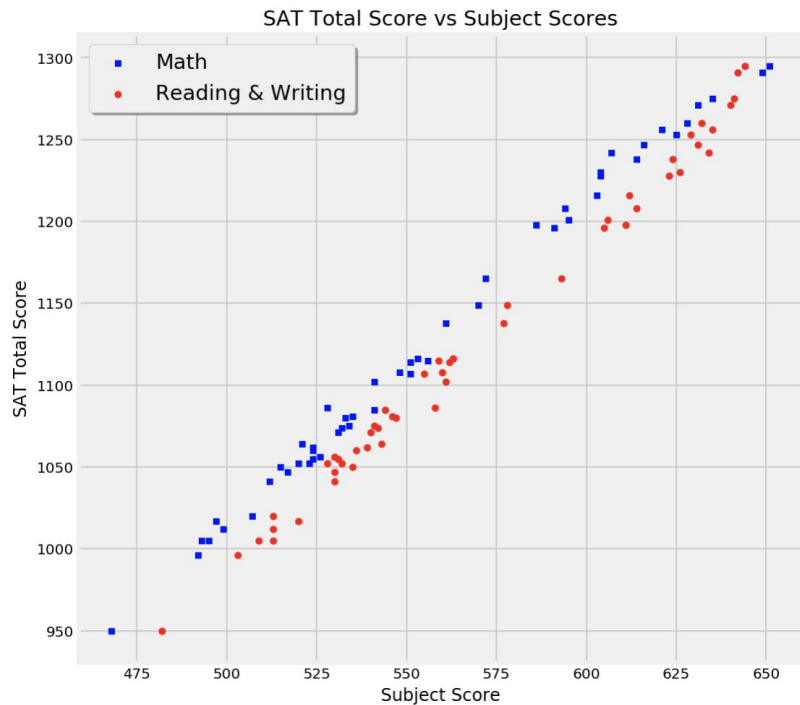
High achieving students are disproportionately represented in low participation state mean exam scores



Key Takeaways:

- **High participation rates** correlate to **low mean state score**, as the entire student population is represented
- **Low participation rates** correlate to **high mean state score**, suggesting that high performers are self-selecting
- **ACT total mean scores are lower** than the SAT **for the same participation rate**, suggesting that the ACT is more difficult

Total scores are strongly correlated to subject scores, with higher scores in non-technical subjects



Additional data is needed in order to make recommendations to improve SAT participation rates

Given the limited provided data, it can be concluded that:

- ACT had a higher mean participation rate (65%) than then SAT (45%) in 2017
- Midwestern states had the lowest SAT participation, making them targets for promotional campaigns
- High achieving students are disproportionately represented in states with low participation
- ACT total scores are lower than SAT for the same participation rates
- Subject scores are strongly correlated to total scores

Additional data is needed to explore potential causes and associated solutions to increase SAT participation:

- Individual student test scores
- Contextual information per state or county
- Prior year results
- Definition of eligible participants