



# **Analysis of SAT / ACT participation rates in 2017/2018**

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# Background



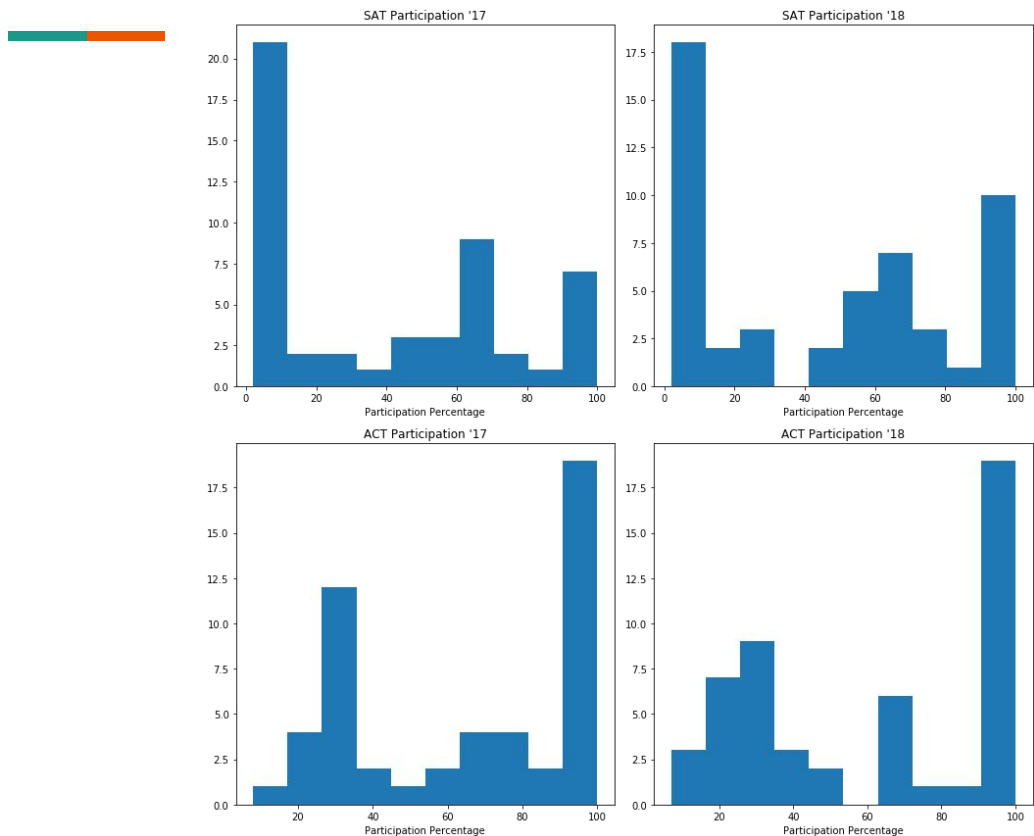
- The SAT and ACT are standardized tests used in college admissions. Each test is taken by about 2 million students each year.
- The datasets analyzed was SAT and ACT scores and participation rates for each state from 2017 and 2018
- The datasets provided was pretty clean with some minor cleanup steps taken prior to analysis
  - The participation rate columns were converted from text to numeric values
  - A number of bad entries with incorrect or duplicate data were identified and addressed
- Once the datasets were fully cleaned, they were all merged into one large dataset for analysis

# Project Goal



- The goal of this project was to identify why certain states have low SAT participation rates and make a recommendation to improve the rate in a specific state

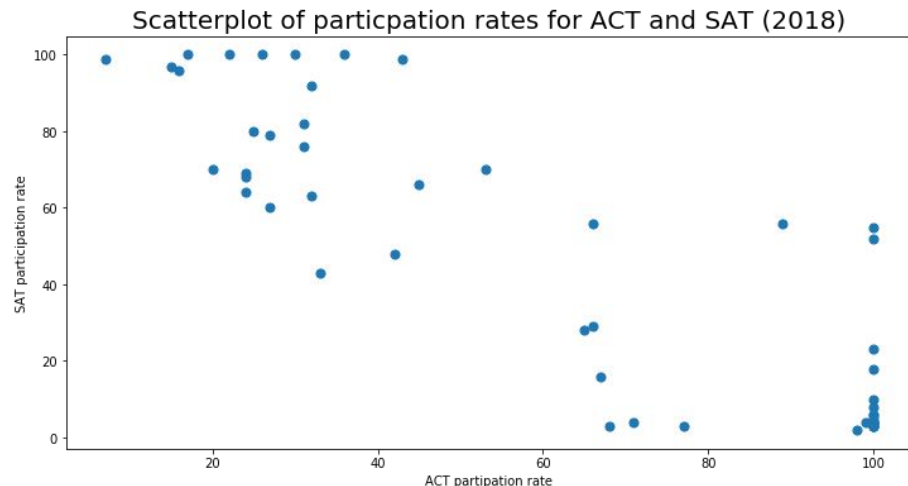
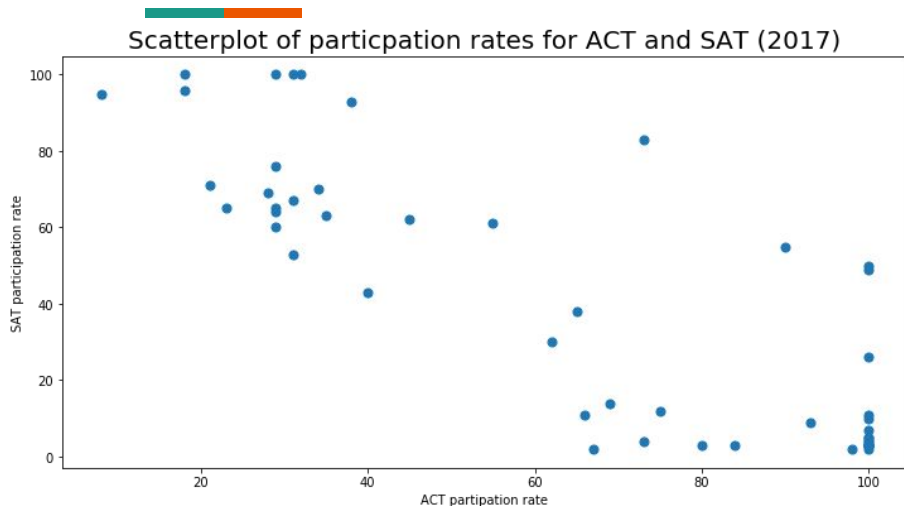
# Participation rates for the SAT / ACT



Looking at the participation rates for the ACT and SAT exams in 2017 and 2018, we see there are a lot of states that have near 100% or near 0% participation. This is true for both exams.

Also, there appear to be more states with near 100% participation in the ACT than the SAT

## Additional analysis on participation rate



From these charts, we can tell that there is a negative correlation between the ACT and SAT participation rates. This means that states with low SAT participation rates likely have high ACT participation rates and vice versa

# States with significant participation rate changes

- Next, I looked to see if I could find states that had changes in participation rate between the years, specifically looking for states that hit or lost 100% participation.
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- Ohio went from 75% to 100% ACT participation rate from 2017 to 2018
- Nebraska went from 84% to 100% ACT participation rate from 2017 to 2018

	state	act_participation_17	act_participation_18
27	Nebraska	84	100
35	Ohio	75	100

- Finally Colorado went from 100% ACT participation rate in 2017 to 100% SAT participation rate in 2018

	state	act_participation_17	act_participation_18
5	Colorado	100	30
23	Minnesota	100	99

	state	sat_participation_17	sat_participation_18
5	Colorado	11	100
12	Idaho	93	100

# Outside Analysis



- Additional research revealed that all of these states passed legislation related to standardized testing.
- Nebraska - passed a law making the ACT the statewide standardized test required for state accountability testing
- Ohio - passed a law allowing either the ACT or SAT to be offered for free to students
- Colorado - passed a law switching the state mandated test from the ACT to the SAT

# Recommendation



- It appears that the best way to increase state participation rate for the SAT is at the state legislative level
- Legislation that mandates a specific test or gets a state to offer the test for free to their high school students seems to have been successful in increasing standardized test participation rates in a number of states
- I would recommend that the College Board target Kansas as a state for such legislation. As of 2018, Kansas had a low SAT participation rate of 4% so there's a lot of room for improvement. In addition, there does not appear to be any legislation mandating the taking of the ACT (2018 ACT participation was 71%) so there's no legislative obstacles to remove that could potentially hinder a pro-SAT law.



# Sources



<https://en.wikipedia.org/wiki/SAT>

[https://en.wikipedia.org/wiki/ACT\\_\(test\)](https://en.wikipedia.org/wiki/ACT_(test))

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