

Increasing SAT Participation Rates

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Problem Statement

To boost the SAT participation rates in different states by understanding the correlations between participation rates, subject scoring and other current issues.



Data Preparation Methodology



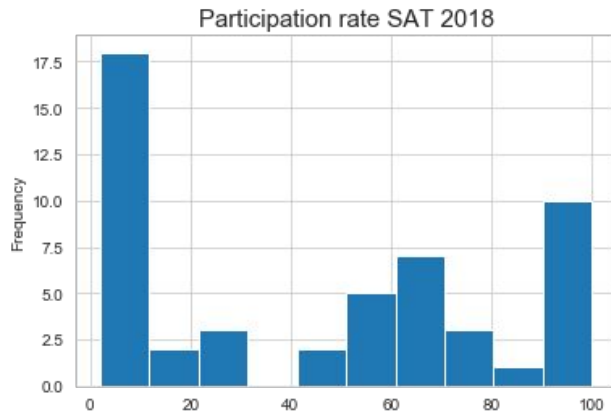
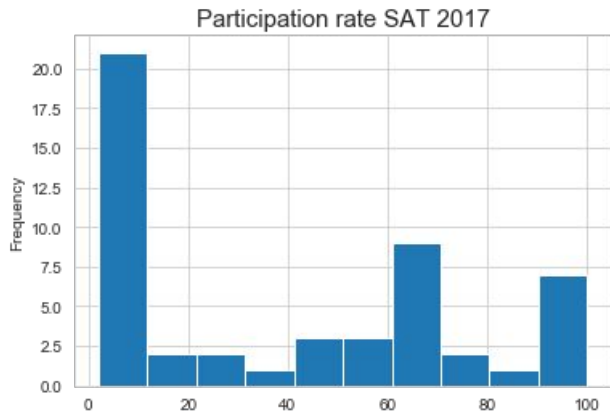
- Verify data accuracy by cross-referencing to external sources
- Look for anomalies and outliers in the data using statistics and charts.
- Performed EDA (Exploratory Data Analysis) using statistics to identify trends, anomalies and relationship between variables



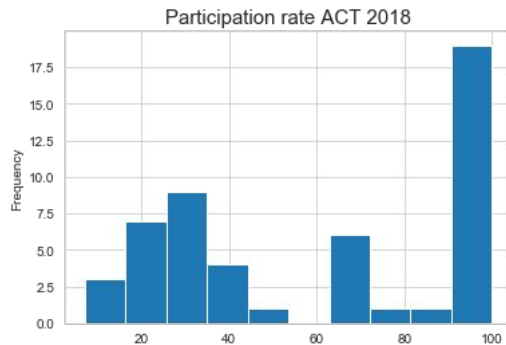
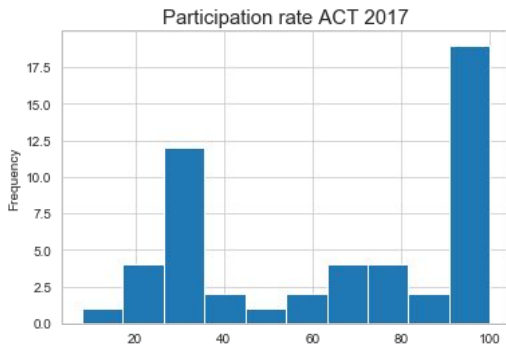
Data Preparation Procedures

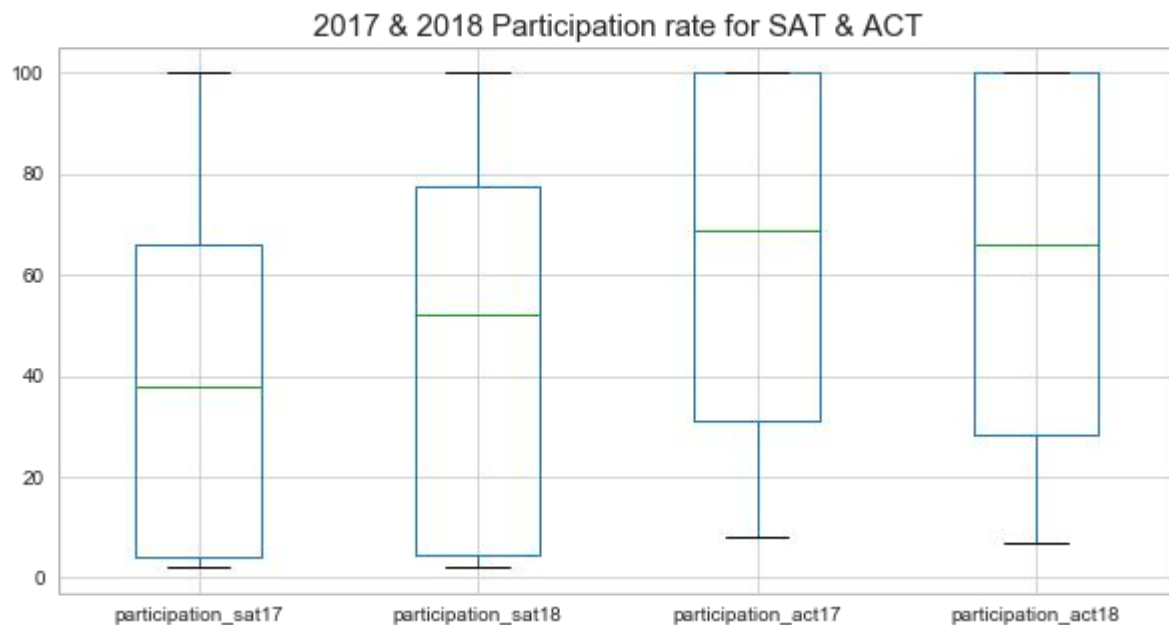


- Apply data scrubbing procedures using codes to ensure;
 - Data types consistencies
 - Missing data is fixed by either removing or to correcting
 - No typos in headers and indexes



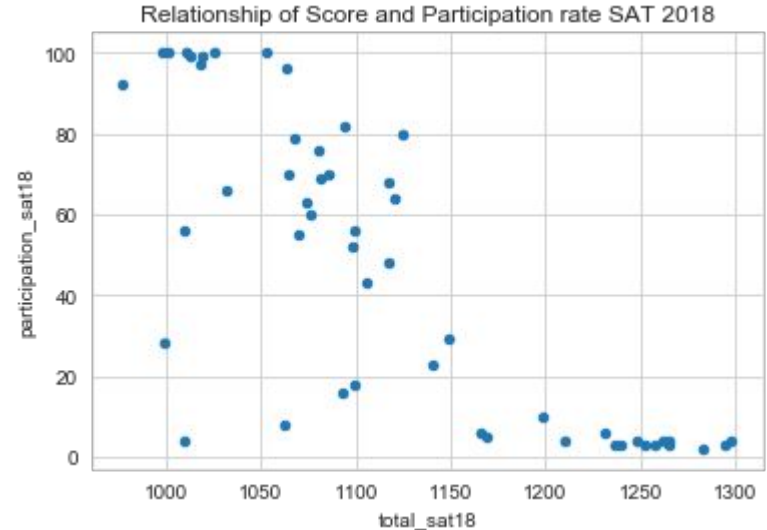
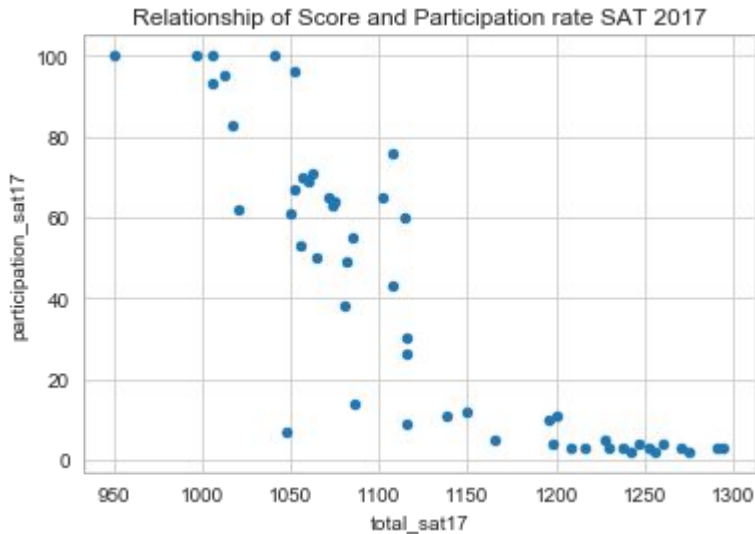
We observed that SAT has low participation rate over these 2 years whereas ACT is the opposite.





Bunching at 50th percentile to 75th percentile
Closer to 100% participation (ACT)

Relationship between Total Score and Participation rate for SAT 2017/18



States with high participation rates tend to have low score and states with high scores have low participation rate.



States with interesting participation rates trend

Colorado:

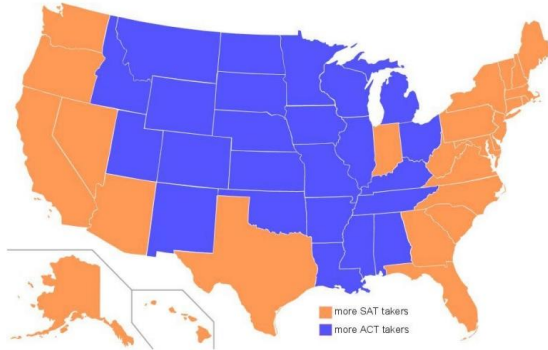
- Colorado have increased SAT participation rates from 11% to 100%.
- In 2017/18, Colorado started covering the cost of the SAT.
- All juniors in public schools are required to take the SAT.
- ACT lost its contract with Colorado. Participation rate decreased from 100% to 30%.



Illinois:

- Illinois have increased SAT participation rates from 9% to 99%.
- In 2017/18, Illinois started providing the SAT for free.
- As of the 2016-17, all Illinois juniors in public schools are required to take the SAT.
- ACT participation rate dropped from 93% to 43%.

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- more SAT takers
- more ACT takers





Conclusions and Recommendations

Why Texas?

- Population size and projected growth in population - expected to surpass California in 2045.
- Population demography - more international than domestic immigrants to Texas
- Current participation rates in ACT and SAT - 41% and 66% respectively



Recommendations:

- State policy: requiring students to take SAT AND making it state-funded
(compare Ohio vs Illinois and Colorado)
- Highlight the fee waivers and free test preparation to appeal to the state and the minority students
- Emphasise that the test has been redesigned and encourage test preparation for better scores



Good-to-have additional data:

- Possible link between test scores and the ease of getting state funding
- State budget for education
- Size of student population not taking either tests
- Percentage of universities in Texas that require SAT and the number of Texan students who choose to further their studies in Texas
- The result of California's study of the usefulness and fairness of standardised tests

Communication and action

- If resources permit, reach out to the states highlighted in yellow
- Align visions
- Collaboration



	SAT_Rate_of_Change	2018_SAT_Part%	2017_SAT_Part%
State			
Florida	-27.0	56.0	83.0
District of Columbia	-8.0	92.0	100.0
Nevada	-3.0	23.0	26.0
New York	12.0	79.0	67.0
New Jersey	12.0	82.0	70.0
West Virginia	14.0	28.0	14.0
Rhode Island	26.0	97.0	71.0
Colorado	89.0	100.0	11.0
Illinois	90.0	99.0	9.0



Thank You!