

# **Increasing SAT Participation**

Identifying potential US states for trial

# Objective and Background

## ***Background:***

- *New format for the SAT was released in March 2016.*
- *Change in state policies supporting standardized testings*
- *More schools opting to make standardized college tests optional*
- *Potential for College Board initiatives to increase SAT participation*

## ***Objective of study:***

- *Identify potential US states to trial initiatives to improve SAT participation rates*

# Data cleaning

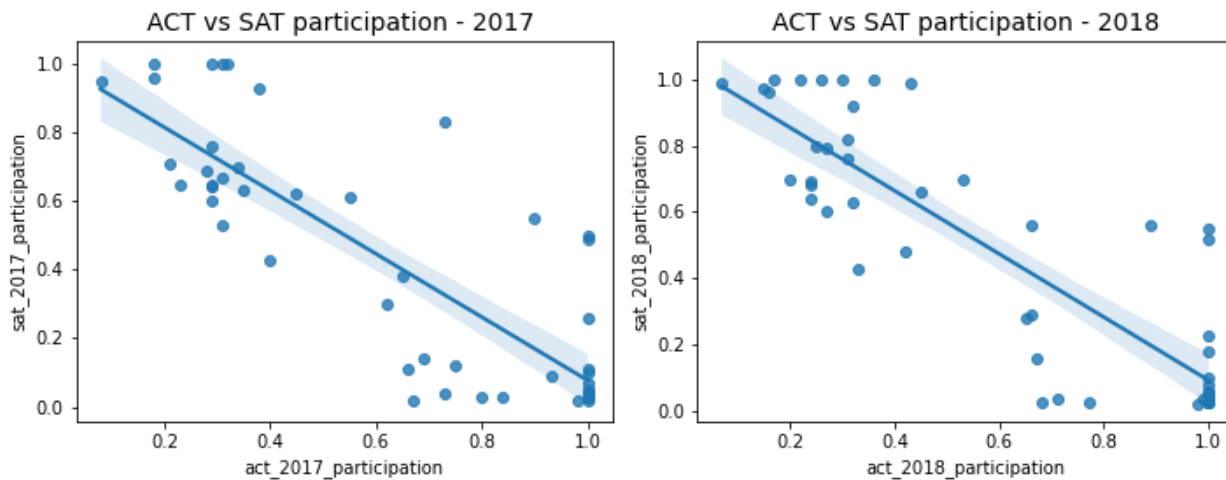
## ○Data :

- State-level SAT and ACT subject and total scores
- Participation rates for SAT and ACT
- Years 2017 and 2018
- Additional statistics from National Center for Education Statistics

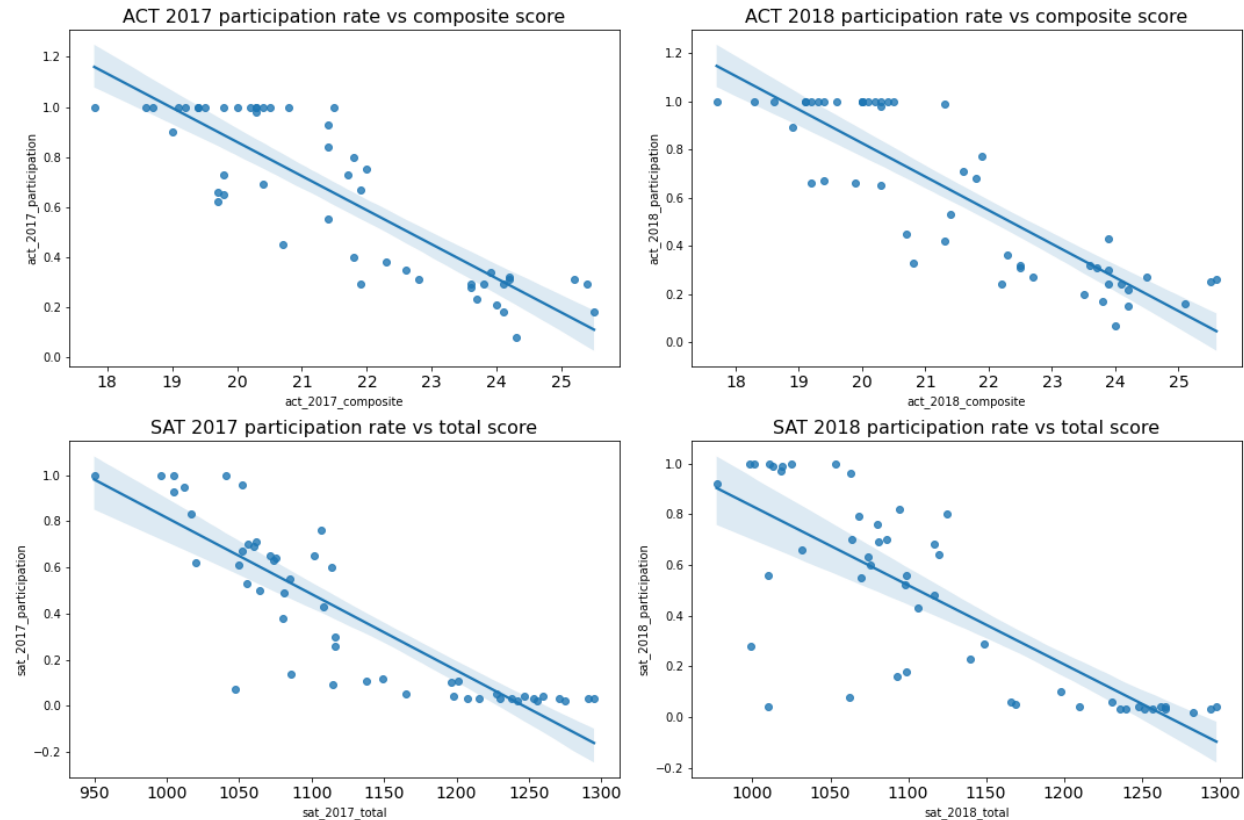
## ○Data cleaning approach

- Null values
- Duplicate rows
- Wrongly named states and data entry errors
- Missing data fields
- Datatype conversion to facilitate calculations

# Exploratory Data Analysis



ACT and SAT participation rates tend to be negatively correlated, as students tend to choose either one to prepare.

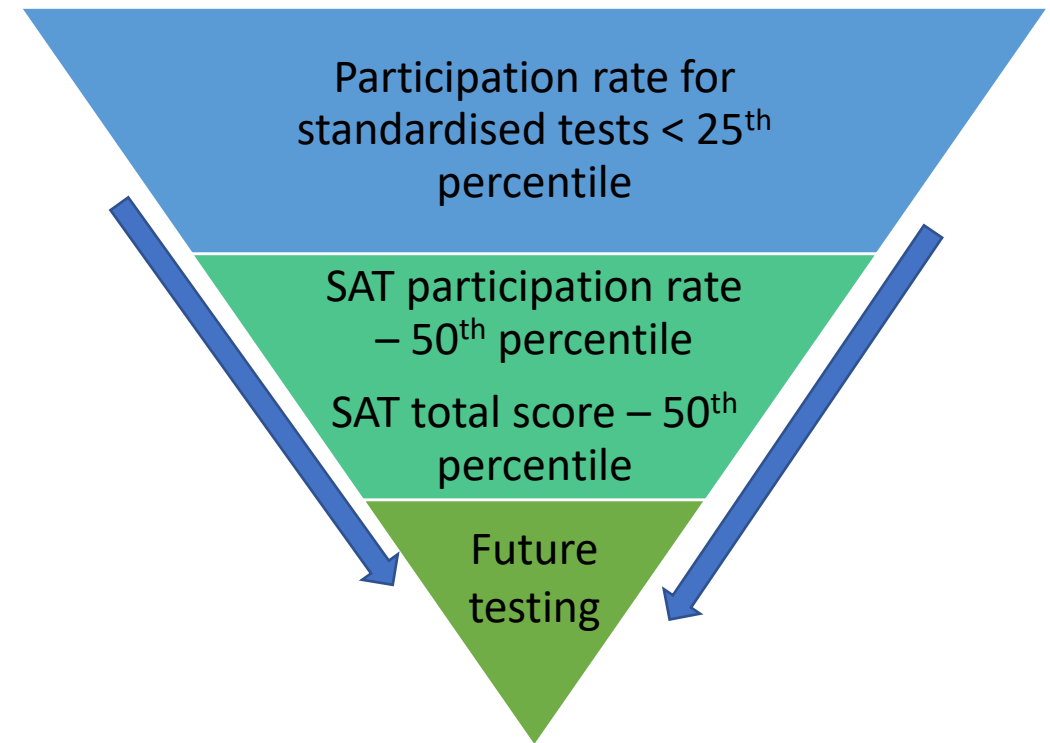


Participation rate and test scores tend to be negatively correlated. Higher spread in candidate quality tends to bring down average scores.

# Analysis Process

- Shortlist states for limited trials to identify factors influencing SAT participation rates
  - State participation level in standardised tests
  - Average SAT participation rates
  - SAT total scores

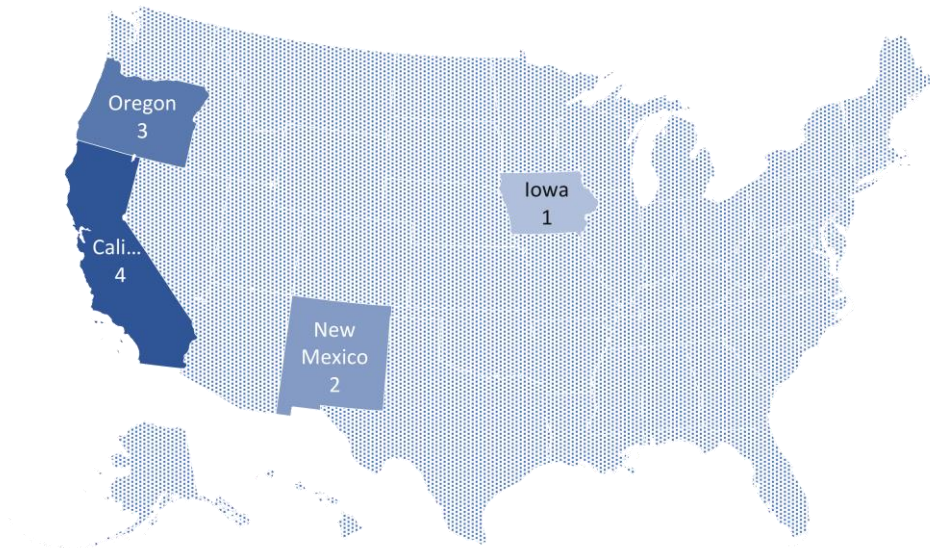
	SAT total score > 50 <sup>th</sup> percentile	SAT total score < 50 <sup>th</sup> percentile
SAT participation rate > 50 <sup>th</sup> percentile	Group 1	Group 2
SAT participation rate < 50 <sup>th</sup> percentile	Group 3	Group 4



# Findings/ Conclusion

## Identified states for each group

- Group 1 (low SAT participation, high SAT score) : Iowa
- Group 2 (low SAT participation, low SAT score) : New Mexico
- Group 3 (high SAT participation, high SAT score) : Oregon
- Group 4 (high SAT participation, low SAT score) : California



State	Standardised test participation	SAT participation	SAT total	Group
California	0.855	0.565	1065.5	4
Iowa	0.700	0.025	1270.0	1
New Mexico	0.800	0.135	1115.5	2
Oregon	0.865	0.455	1112.5	3