

# SAT Performance Analysis (2017-2019)

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February 22 , 2021

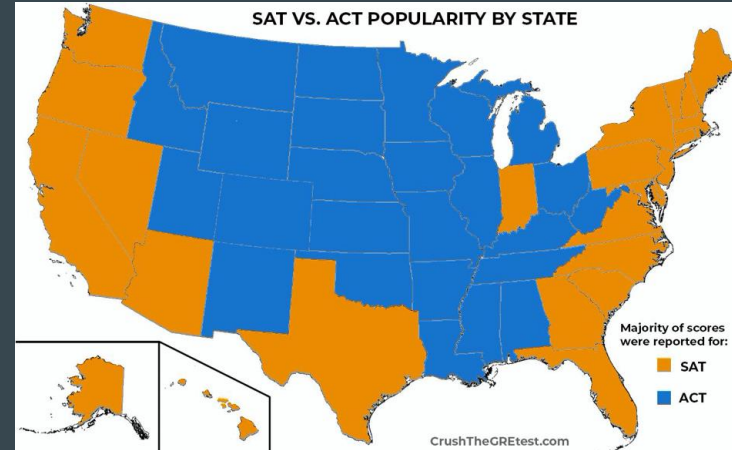
By

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# Overview

Due to its long history, it has been known that SAT is more popular on the East and West coast, and the ACT is reigning in the MidWest.

Since ACT is developed, it has constantly gained more popularity and more popularity. In 2015, ACT finally manage to beat SAT in the number of test-takers.



## ACT's Record Growth



# Redesign SAT in 2016

## Results

- An Increase of approximately **180,000** test takers from spring 2015 to spring 2016
- For some statistics:
  - By a **7-to-1 margin**, students said they preferred the format of the new SAT over that of the old SAT.
  - **80%** of students reported feeling confident going into the new SAT.
  - Parents are **five times more** likely to prefer that their child take the new SAT over the old SAT.
  - Nearly **7 in 10 teachers** support the changes to the SAT.

# Understanding the dataset

## SAT Data

- Participation rates by each state are considered the performance of SAT
- Average score (EBWR, Math, Total Score)
- Data is collected in 2017-2019

## ACT Data

- Participation rates by each state are considered the performance of ACT
- Average score (Eng, Math, Reading, Science)
- Data is collected in 2017-2019

## Numbers of Student

- Number of students enrolled in public high schools by state in 2017
- It is assumed to be the same in 2018 and 2019

## **Project objective:**

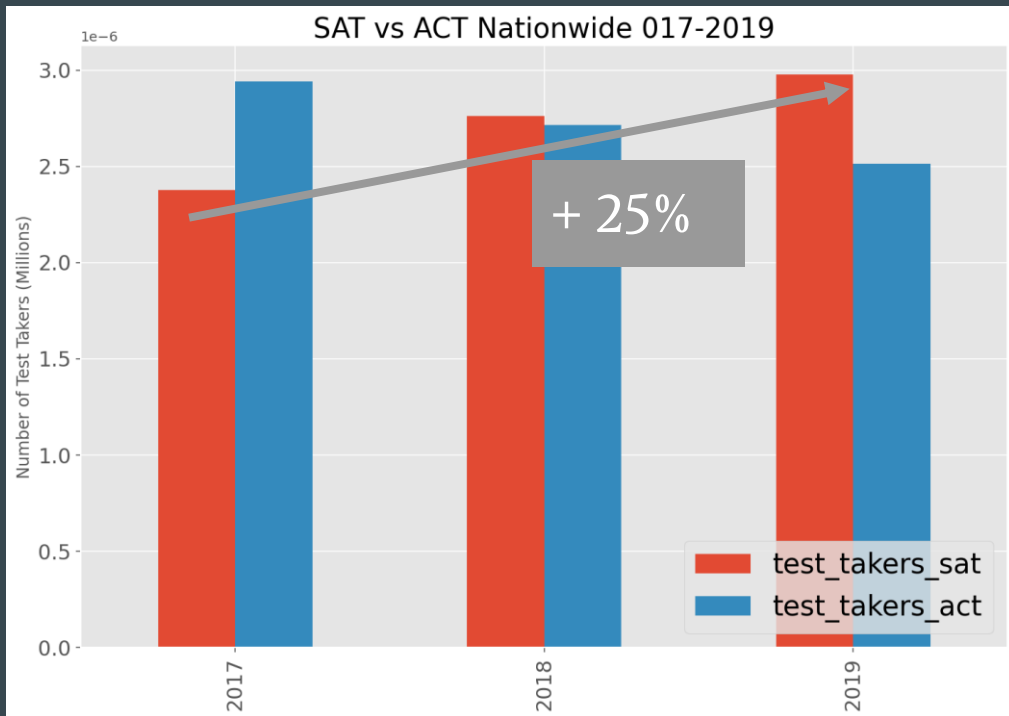
Tracks SAT and ACT performance statewide to find **best-practice state** and recommend the board where to spend money to make the best profit.

**Understanding the market  
and previous trends**

# Performance of SAT and ACT nationwide performance

## Findings

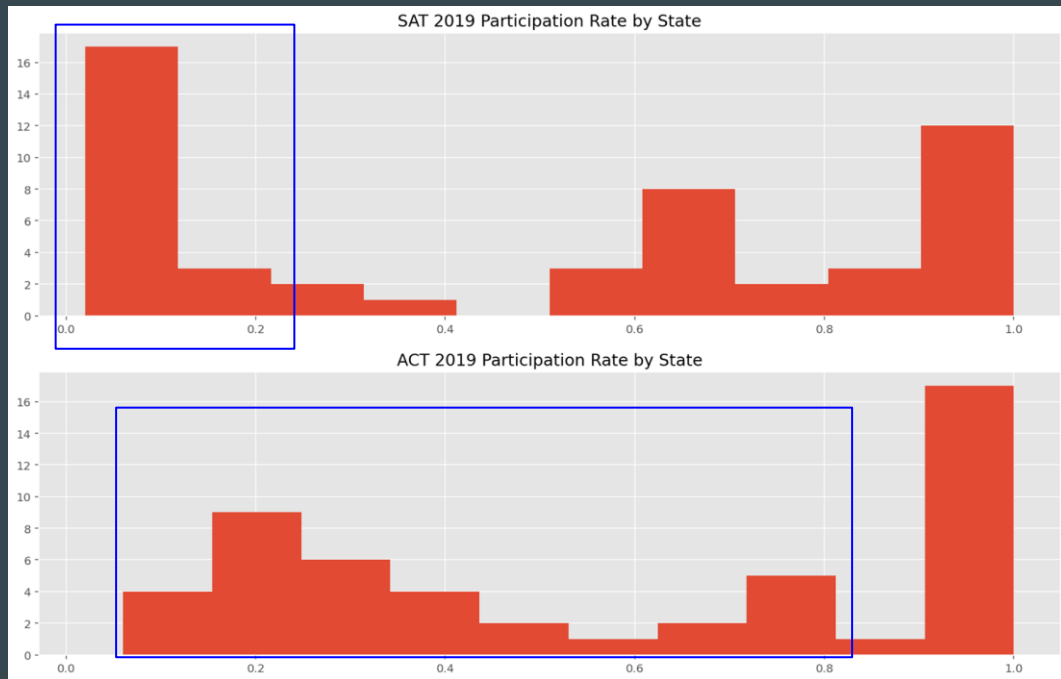
- In 2017, ACT performance is better based on number of test takers nationwide.
- After we changed test format in 2016, our performance is constantly getting better.
- We surpass ACT in **2018**.
- SAT test takers increased by 25% in 2019 from 2017.



# Popularity of SAT and ACT

## Findings

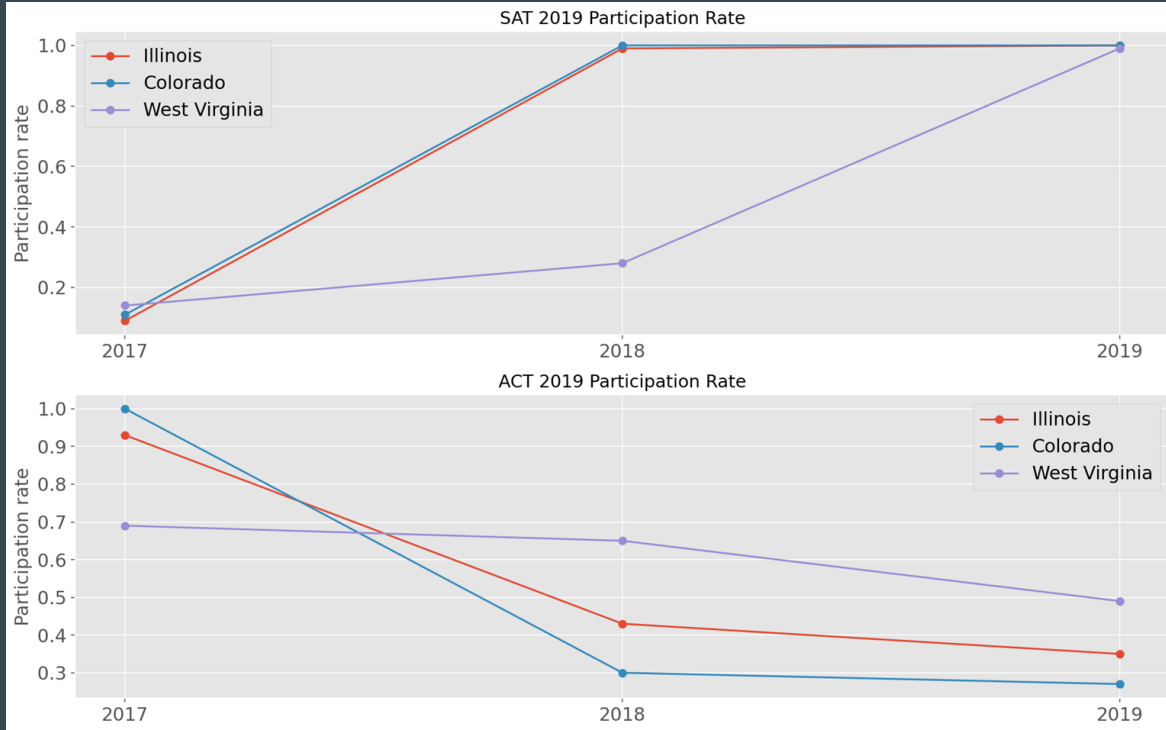
- There are many states that SAT is not popular resulting in low participation rates.
- While, for ACT, the participation rates of each states are varied and there are many more states with participation rate is 100%.





**Define strategy and recommendation**

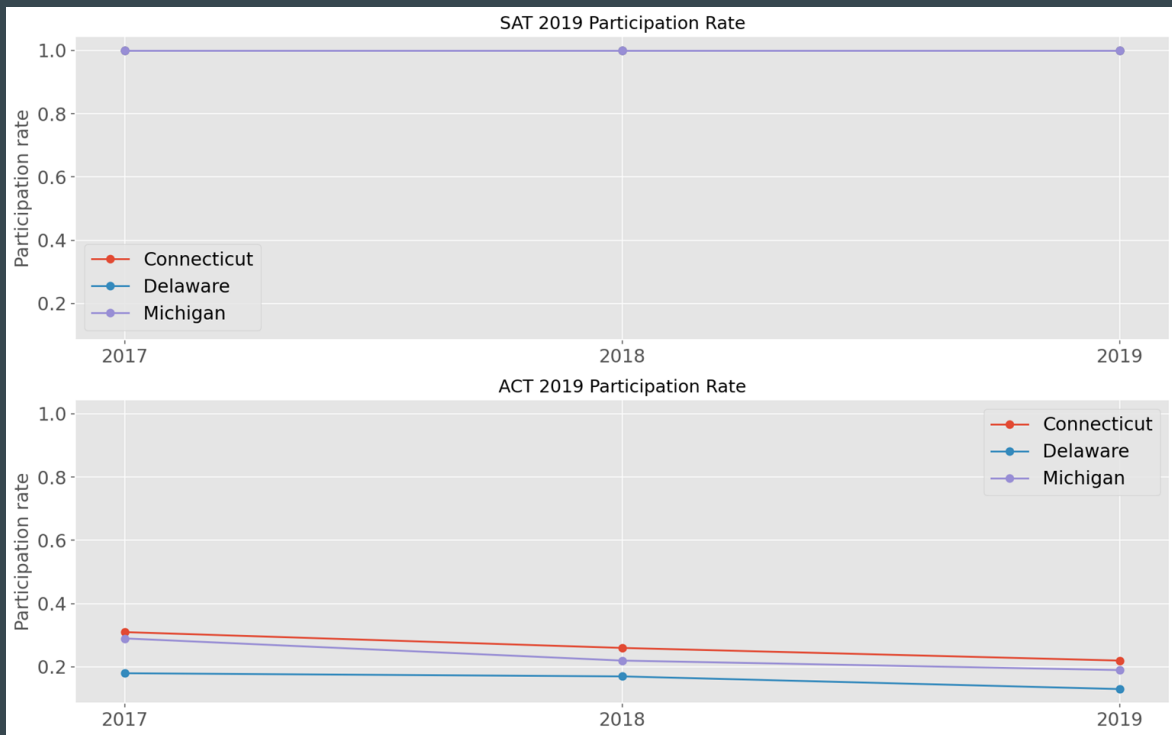
# Define Strategies: (1) Flipping



## Findings

- These 3 states started from very low participation rates and can flip the board in 2018.
- Their strategies need to be studied and apply to other states with similar characteristic.

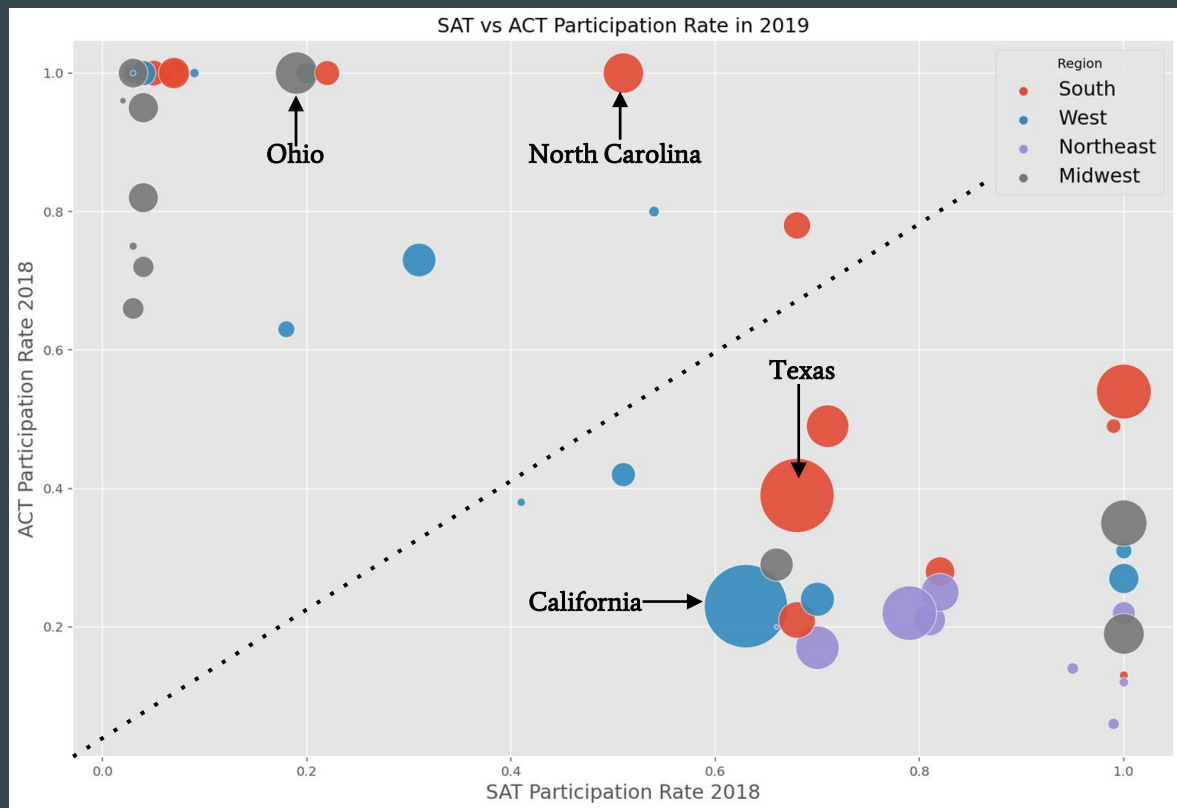
# Define Strategies: (2) Suppress



## Findings

- These 3 states had the best performance of SAT all over the US.
- Moreover, the popularity in ACT is also decreasing over the past 3 years.
- Need to be studied on how to keep student loyalty to SAT

# Strategies Segmentation



## Group 1 (Top side)

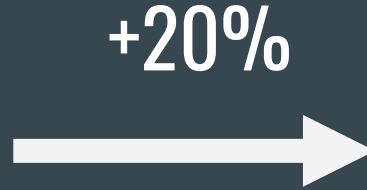
- ACT performance is better
- Need 'Flipping' Strategy
- Focus on 'Ohio' and 'North Carolina'

## Group 2 (Bottom side)

- Has advantages over ACT
- Use 'Suppress' strategy
- Need to focus on California and Texas

# Revenue projections

State	Participation Rate
Texas	68%
California	63%
North Carolina	51%
Ohio	19%



Participation Rate
88%
83%
71%
39%

4% of revenue (\$17.9 M) ↑

By Focusing only 4 States

# Key Takeaway

1

- Numbers of SAT test takes increase significantly.
- Strategies in the past 3 years are right. Keep doing it.

2

- In IL, CO and WV, the marketing campaign used is very effective. It needs to be extended to other states with similar characteristics.

3

- By focusing on 4 States (CA,TX,OH,NC), we can increase revenues by 4%
- With more researching, we can apply these strategies to other states as well.

**THANK YOU FOR YOUR ATTENTION**