

Project 1

# Standardized Test Analysis

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# Introduction



# Problem Statement

How to increase SAT participation rates in potential states with low participation rates

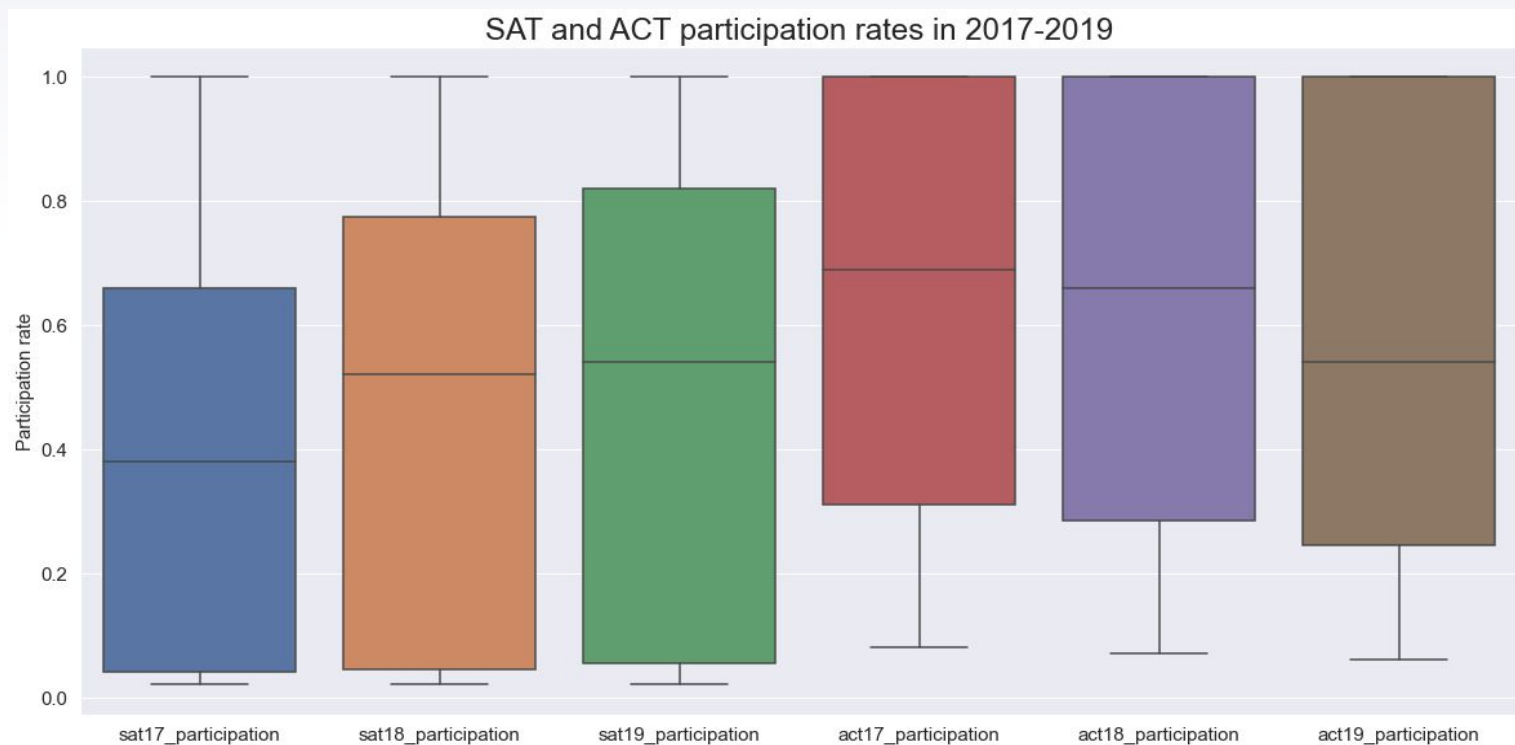


# Current College Board Implementation

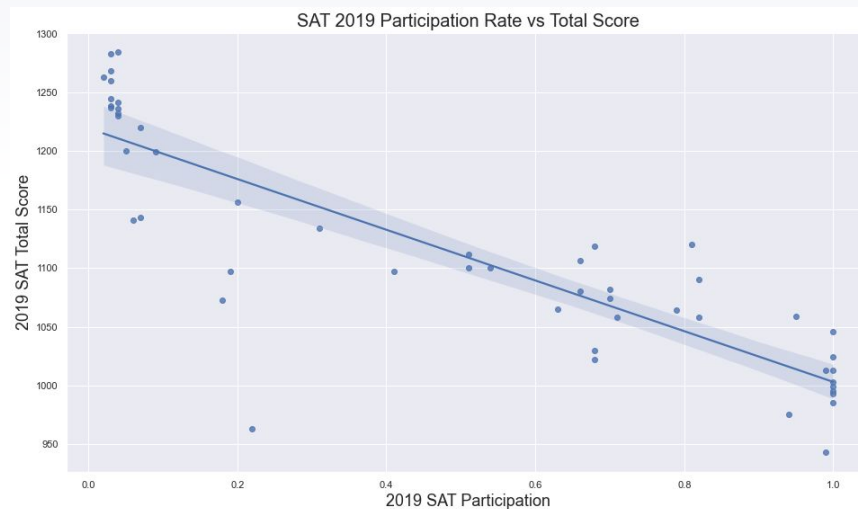
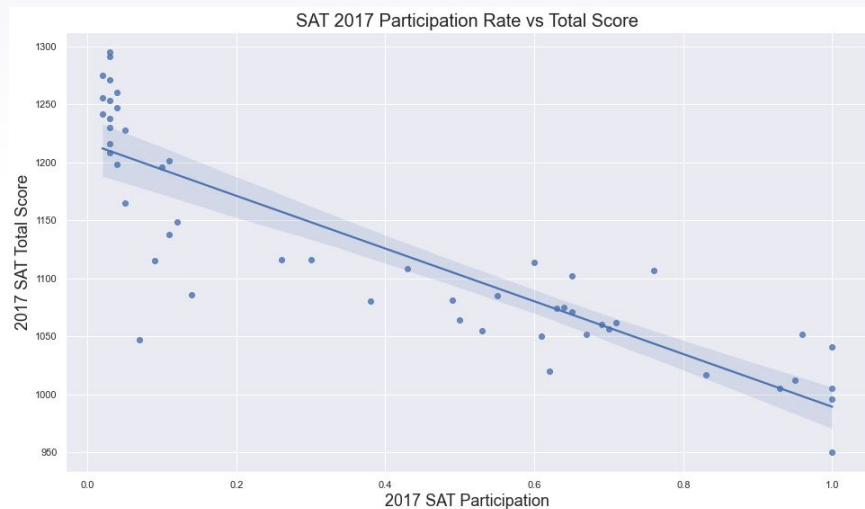
- ▶ New SAT format in 2016
- ▶ Provides up to 2 SAT fee waivers for low income families
- ▶ Partnered with Khan Academy to provide free SAT study materials



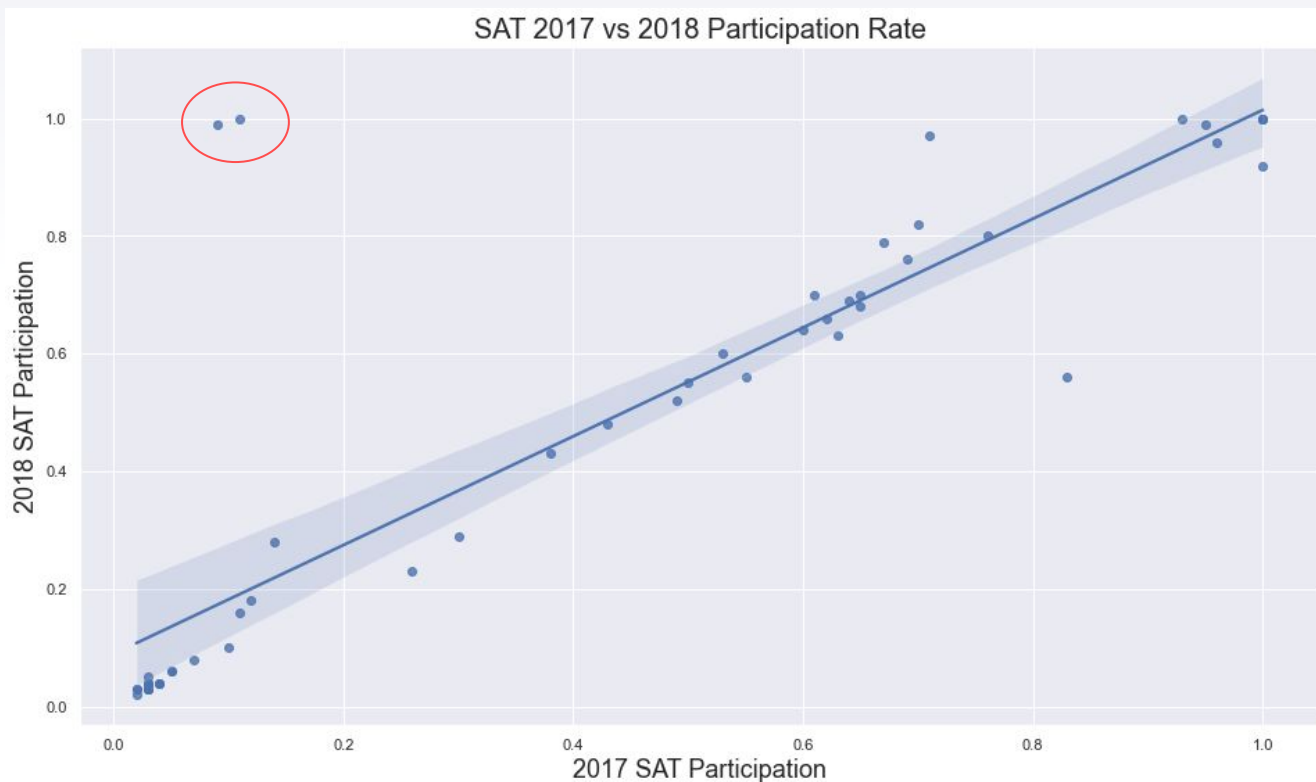
# SAT vs ACT Participation Rates



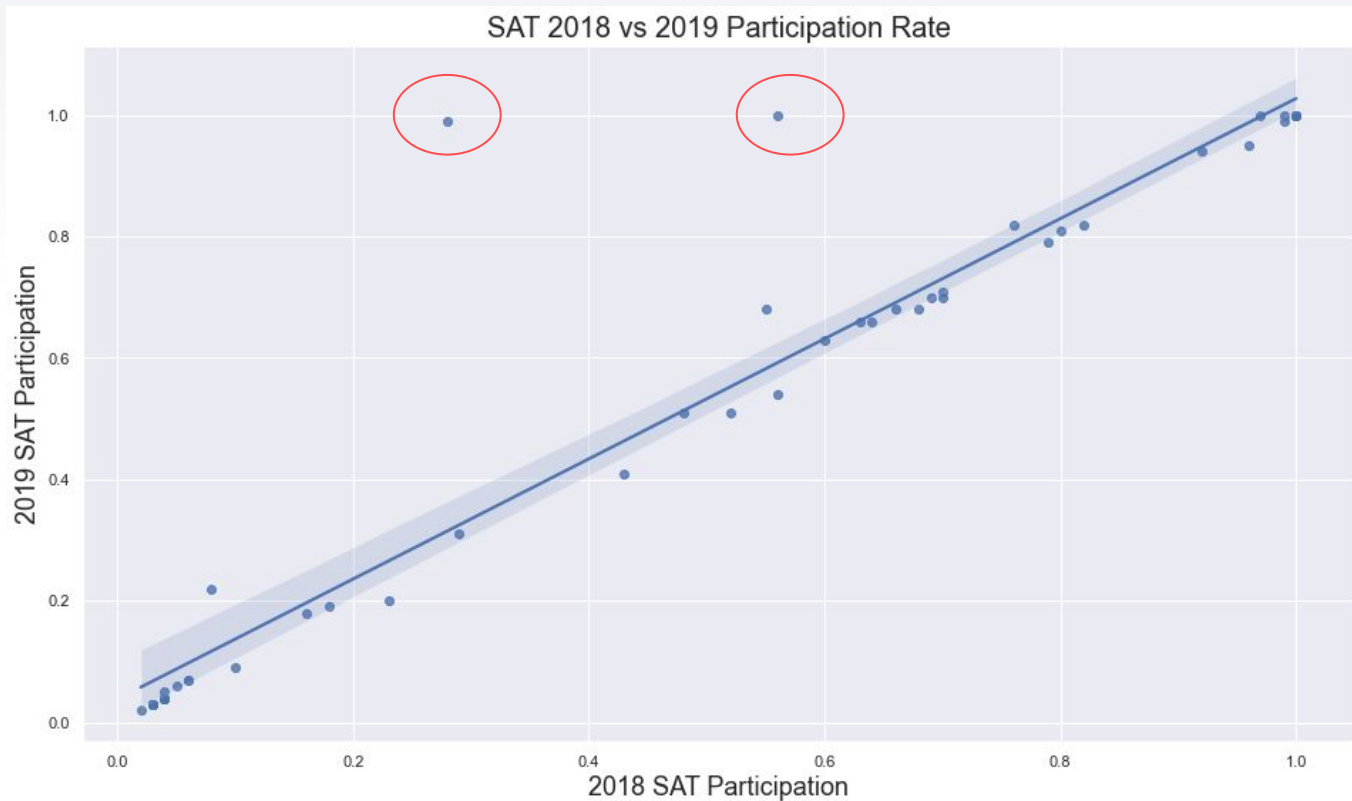
# SAT Participation Rate vs Total Score



# SAT 2017 vs 2018 Participation Rates



# SAT 2018 vs 2019 Participation Rates





# ► Key Findings

- SAT and ACT participation have a strong negative correlation
- Participation and total/composite score have a strong negative correlation
- Strong positive correlation on year on year participation

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# Selection of State



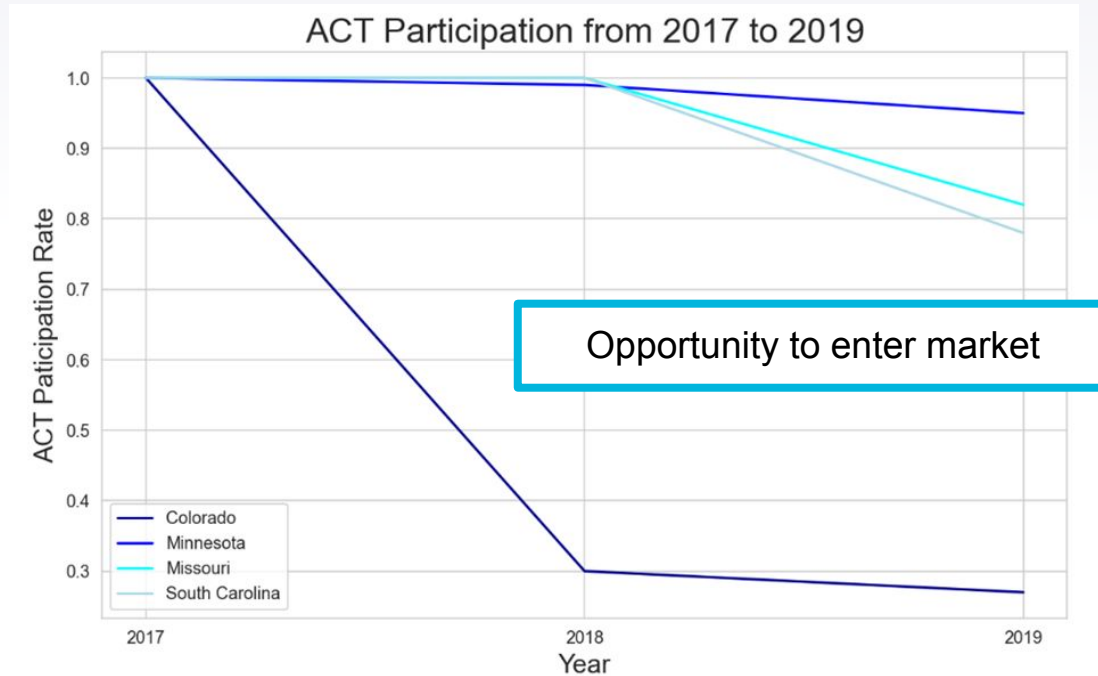
# Selection Process



## No Mandatory Test

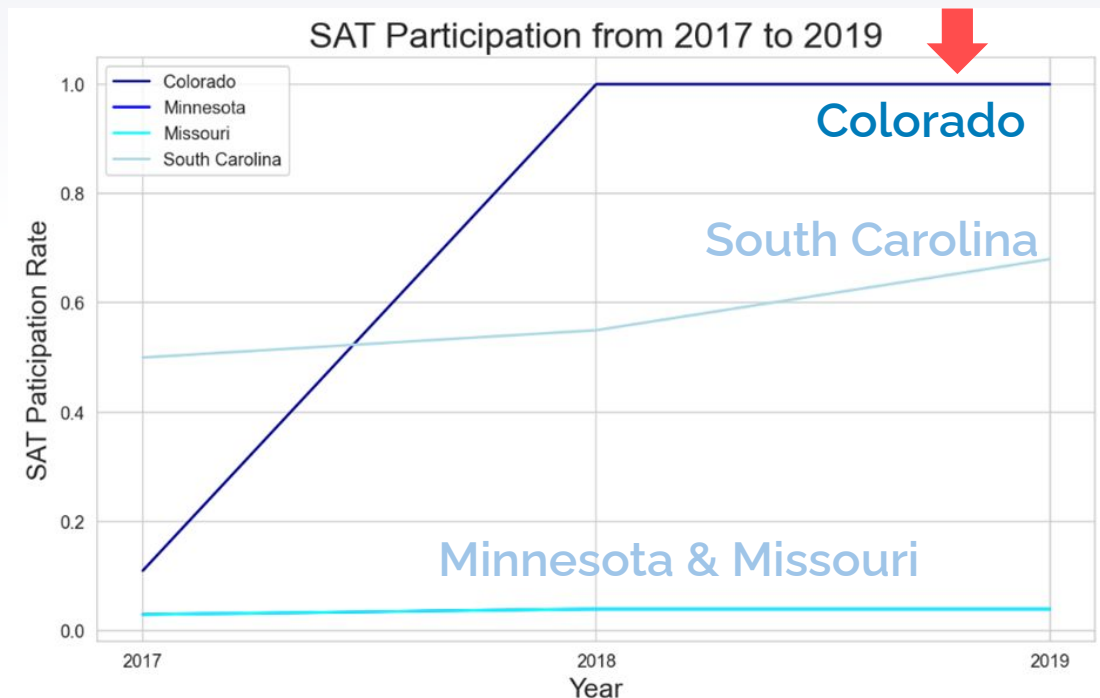
- Free to choose SAT or ACT
- Opportunity to establish agreement for mandatory test

# Shift from 100% ACT Participation Rate



# Shift from 100% ACT Participation Rate

**Success Case:**  
Colorado has mandated SAT in 2017 ([source](#))



100%

# Selection Process



## No Mandatory Test

- Free to choose SAT or ACT
- Opportunity to establish agreement for mandatory test

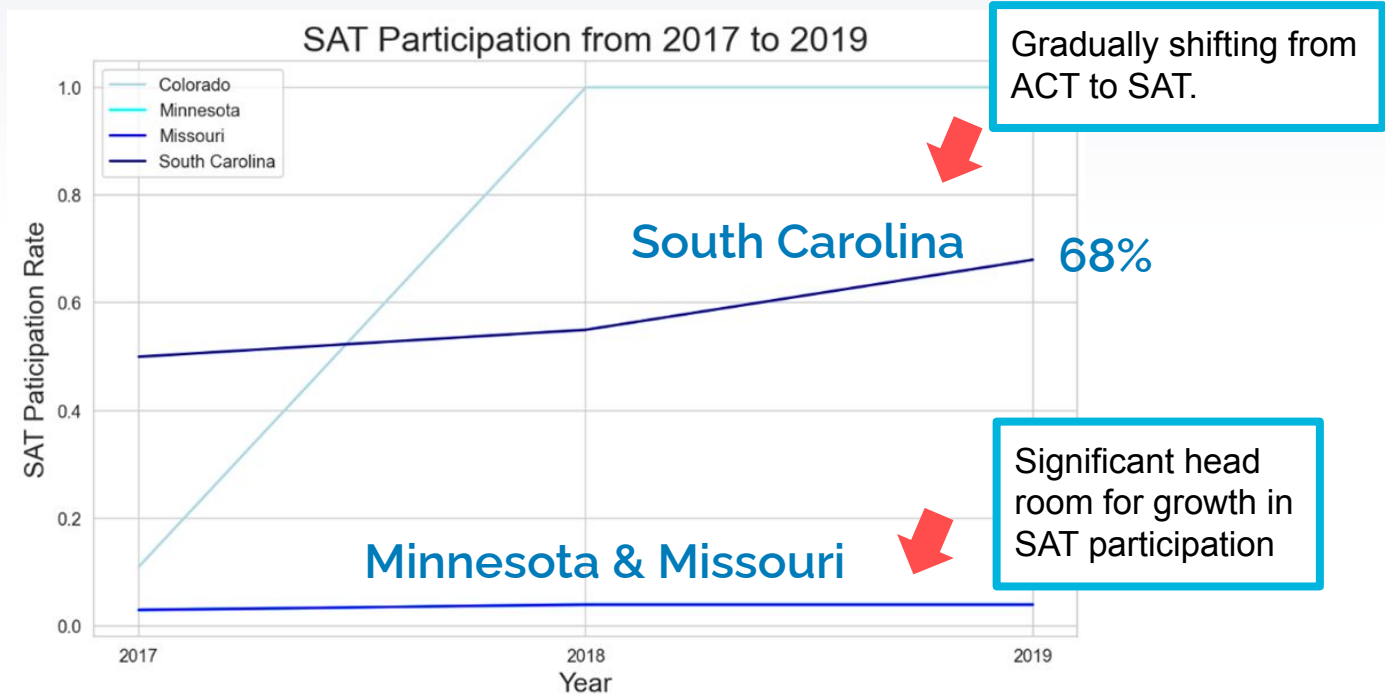
## Low SAT Participation High ACT Participation

- Social norm to take standardised test and pursue higher education
- Sufficient headspace to increase SAT participation rate

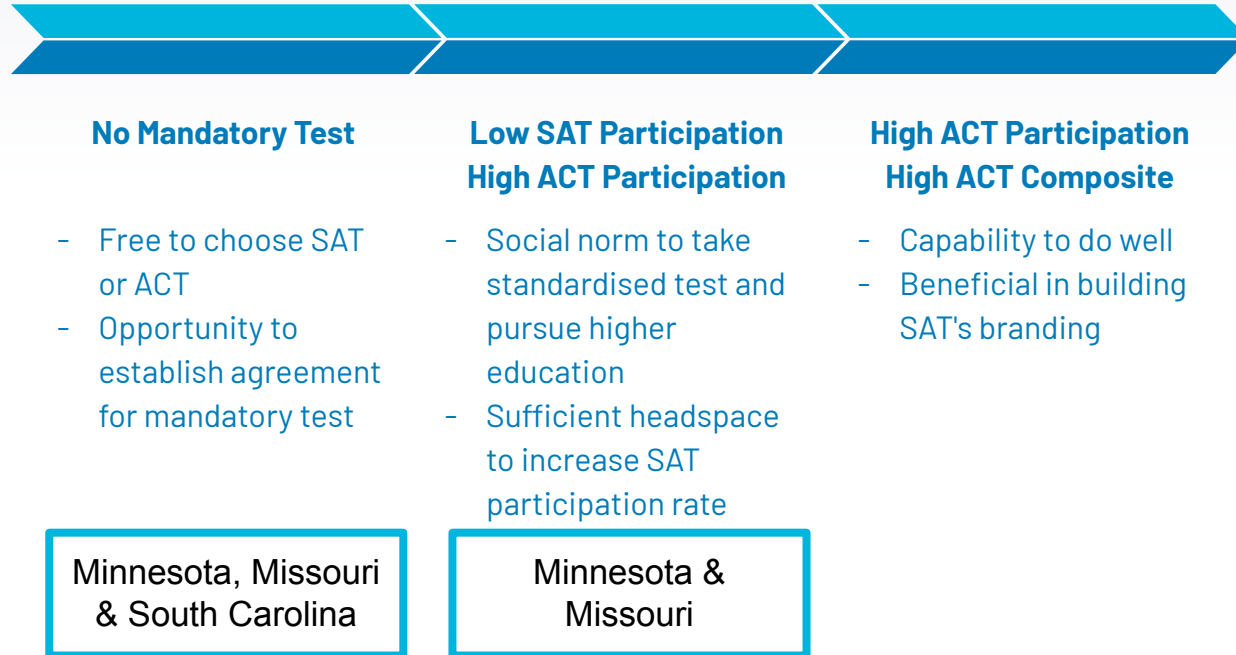
Minnesota, Missouri  
& South Carolina

# Minnesota, Missouri, South Carolina

Free to choose  
SAT or ACT.



# Selection Process





# High ACT Participation Rate and Composite

## High ACT Participation Rate

More than 50%  
participation rate



## High ACT Composite Score

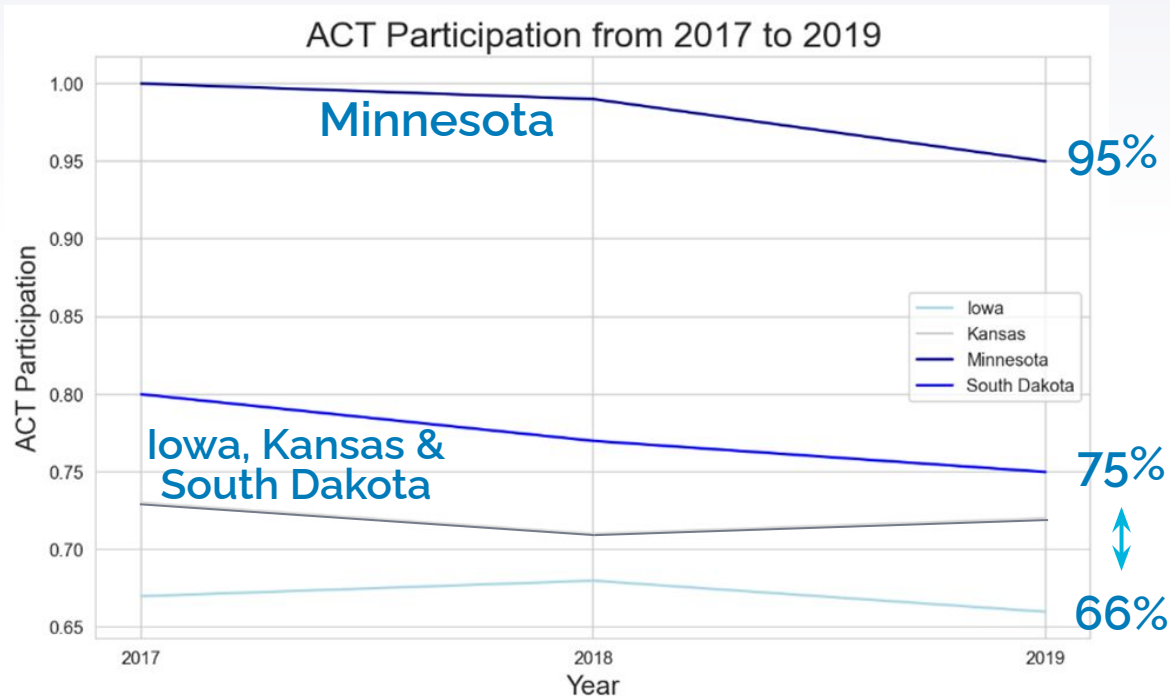
More than population  
median



**Iowa, Kansas, Minnesota  
and South Dakota**

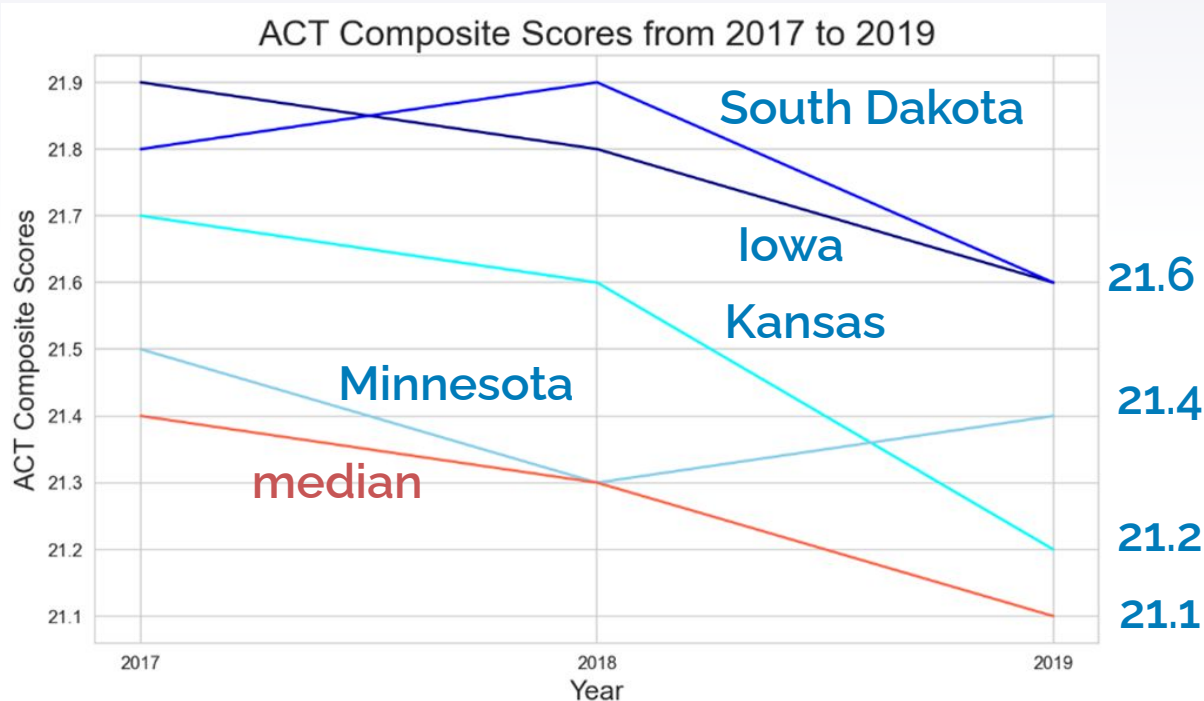


# High ACT Participation Rate and Composite



- High ACT participation rate despite not being mandatory
- Suggests social norm to take standardised test.

# High ACT Participation Rate and Composite



In 2019:

- Minnesota has 95% ACT participation (>20% than the rest)
- Yet Minnesota has comparable ACT composite.
- Shows that Minnesota's students has capability of doing well for SAT.

# Selection Process

Source



**Minnesota**

## No Mandatory Test

- Free to choose SAT or ACT
- Opportunity to establish agreement for mandatory test

**Minnesota,**  
Missouri & South  
Carolina

## Low SAT Participation High ACT Participation

- Social norm to take standardised test and pursue higher education
- Sufficient headspace to increase SAT participation rate

**Minnesota**  
&  
Missouri

## High ACT Participation High ACT Composite

- Capability to do well
- Beneficial in building SAT's branding

Iowa, Kansas,  
**Minnesota** and  
South Dakota

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# Recommendation



# Change in participation rate for SAT from 2017 to 2019

State	Participation Rate 2017	Participation Rate 2019	Change in Participation Rate
Illinois	9%	100%	+91%
Colorado	11%	100%	+89%
West Virginia	14%	99%	+85%
Rhode Island	71%	100%	+29%
South Carolina	50%	68%	+18%



# South Carolina

**Change in participation  
rate**

**+5%**

2017 to 2018

**+13%**

2018 to 2019

**Change in mean total  
score**

**+6 points**

2017 to 2018

**-40 points**

2018 to 2019

*South Carolina's score surpassed national average ([source](#))*



## Fee Waiver

For all students who are in the 11th & 12th grade.

## Scholarship

For the top 1% of people who participated in SAT.

## South Carolina's Practices

To implement SC's SAT preparation.





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# Conclusion

