

# SAT & ACT Analysis

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# Background

- What is SAT and ACT?
- A new format for SAT was released in 2016 to compete with its counterpart ACT

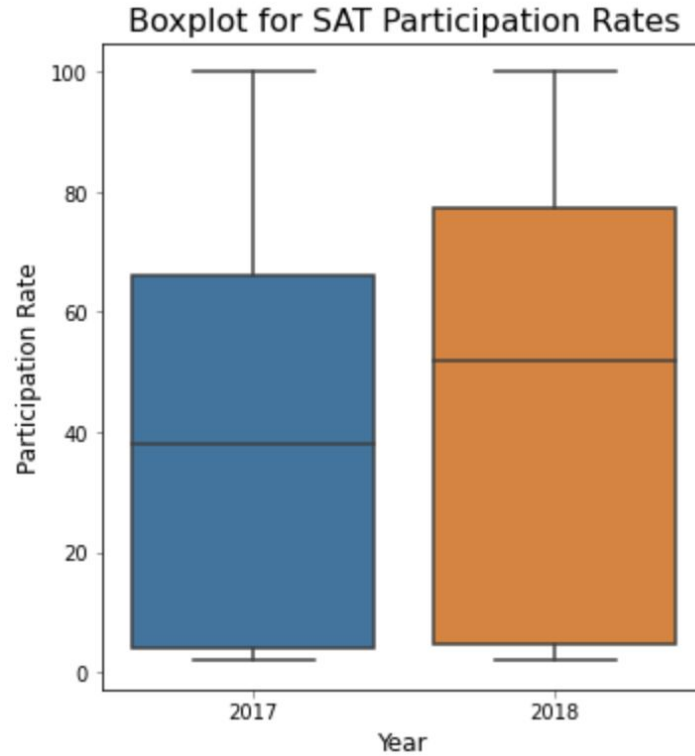
# Problem Statement:

What can we do to **increase SAT participation rates** across the US?

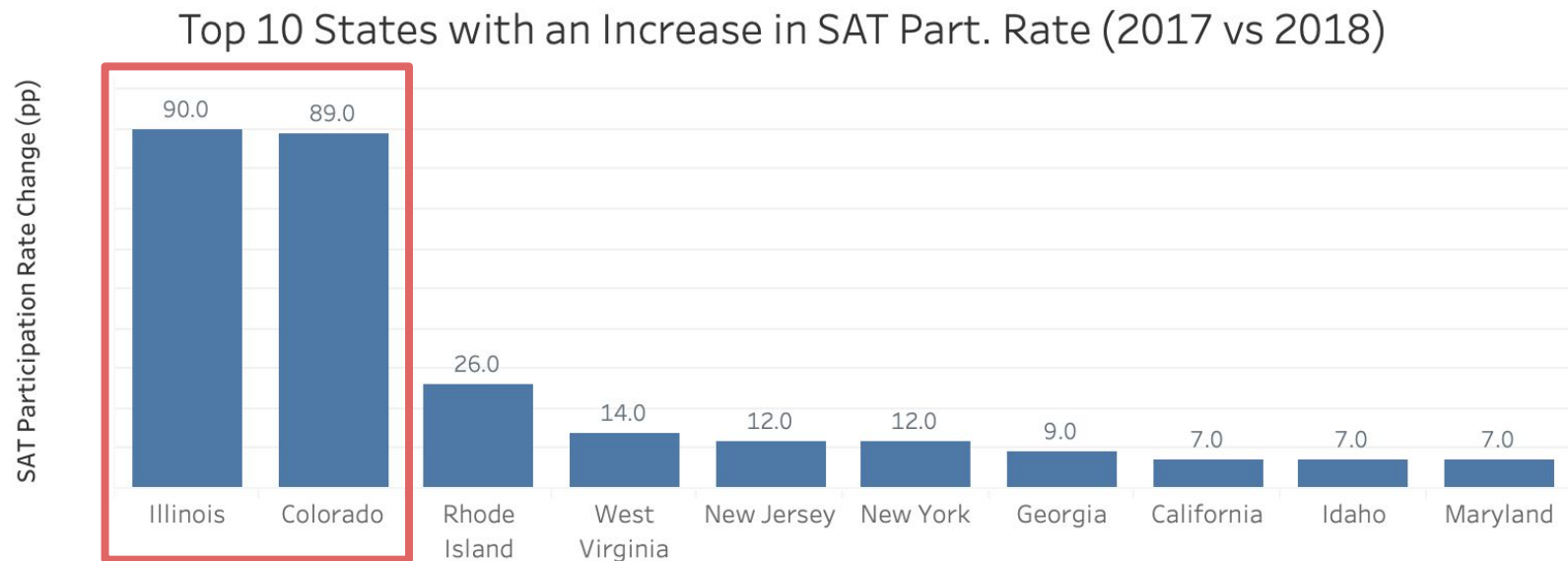
# SAT Trends

(2017 vs 2018)

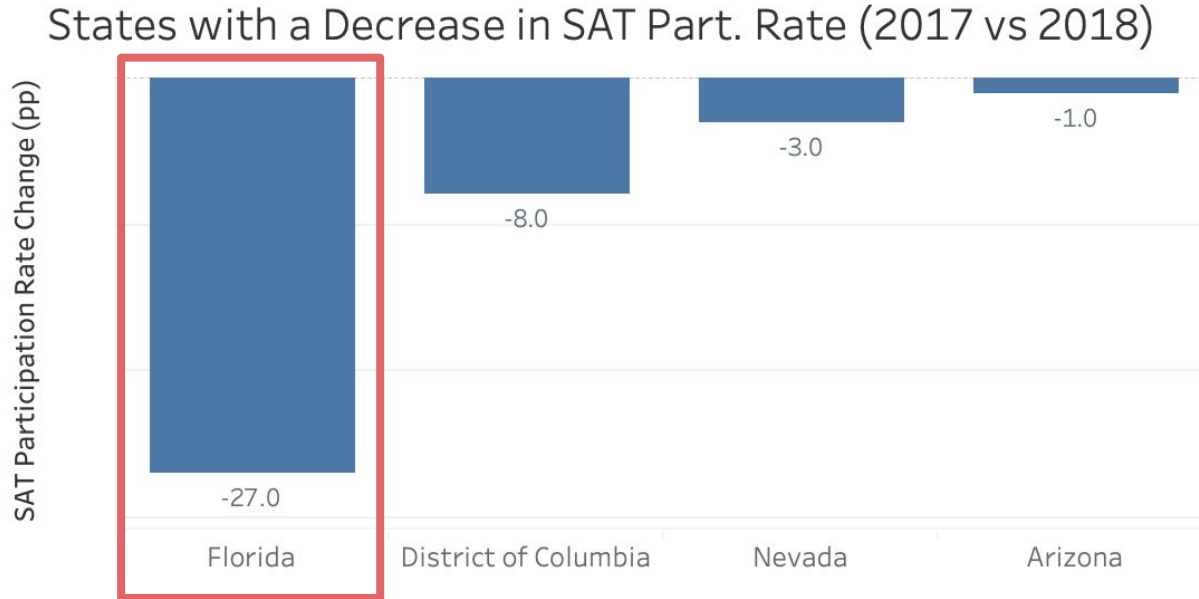
# SAT participation rates are increasing



The increase in SAT participation rates were largely driven by Illinois and Colorado



Four states saw a decrease in SAT participation rates with Florida experiencing the largest drop



# SAT scores fell for Colorado and Illinois

## SAT ERW Score (2017 vs 2018)

state	ERW % Change	ERW 2017	ERW 2018
Colorado	-14.4%	606.0	519.0
Illinois	-8.2%	559.0	513.0

## SAT Math Score (2017 vs 2018)

state	Math % Change	Math 2017	Math 2018
Colorado	-15.0%	595.0	506.0
Illinois	-9.0%	556.0	506.0

## SAT Total Score (2017 vs 2018)

state	Total % Change	Total 2017	Total 2018
Colorado	-14.7%	1,201	1,025
Illinois	-8.6%	1,115	1,019



On the contrary, Florida saw an increase in SAT scores

### SAT ERW Score (2017 vs 2018)

state	ERW % Change	ERW 2017	ERW 2018
Florida	5.8%	520.0	550.0

### SAT Math Score (2017 vs 2018)

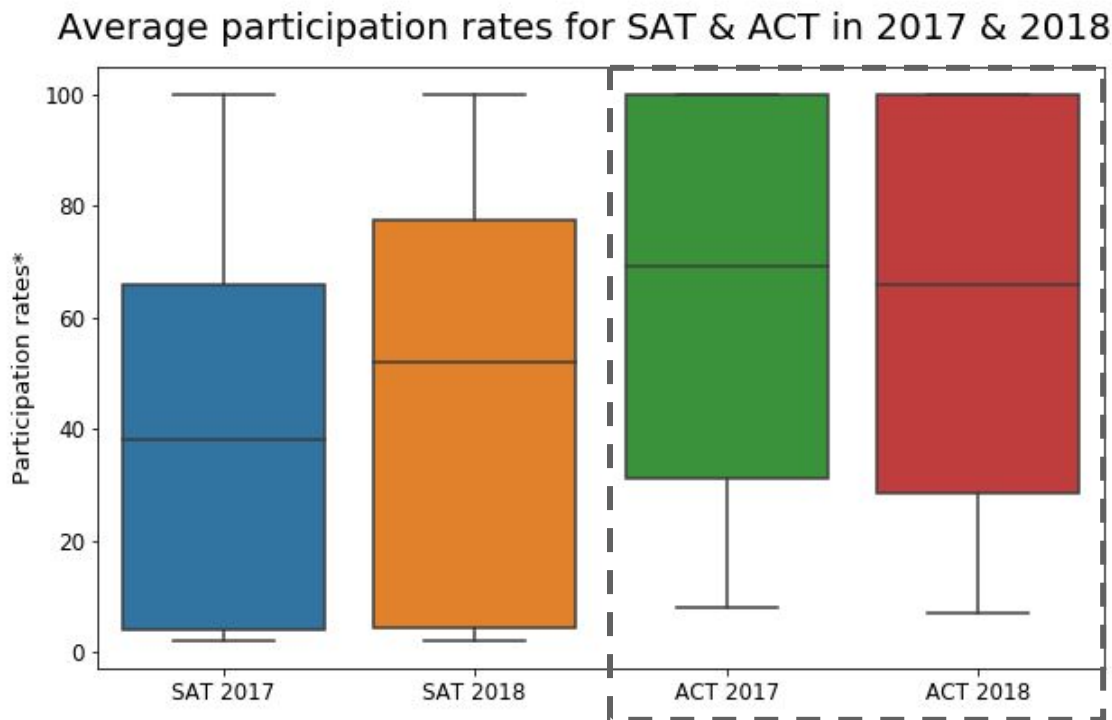
state	Math % Change	Math 2017	Math 2018
Florida	10.5%	497.0	549.0

### SAT Total Score (2017 vs 2018)

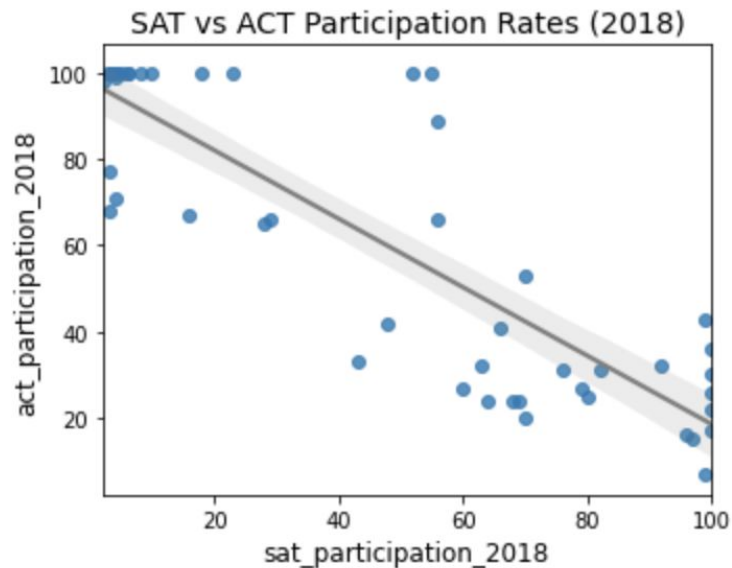
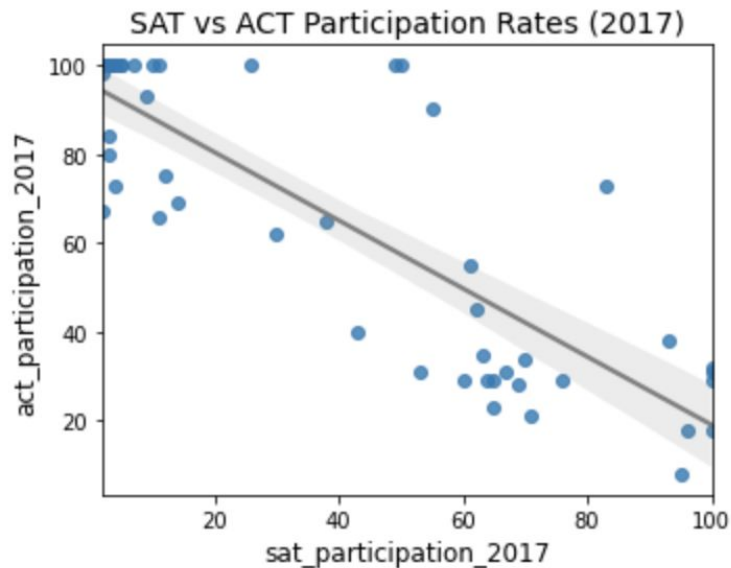
state	Total % Change	Total 2017	Total 2018
Florida	8.1%	1,017	1,099

SAT vs ACT

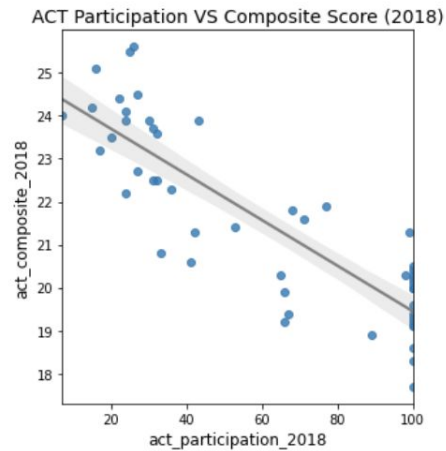
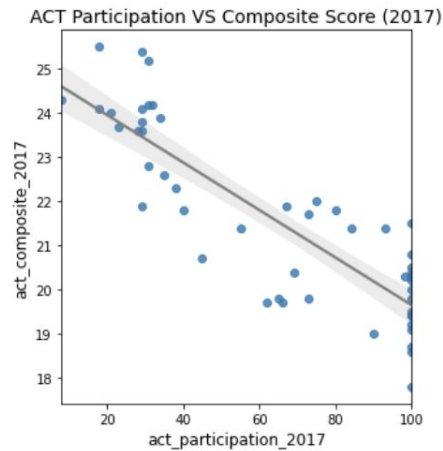
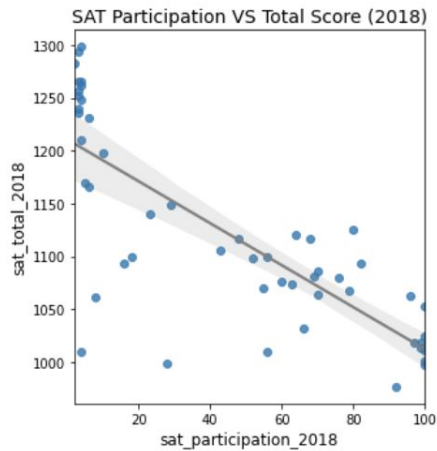
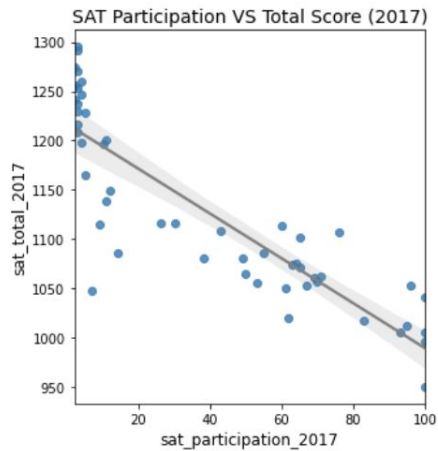
# ACT has significantly higher participation rates



Participation rates between SAT and ACT are negatively correlated

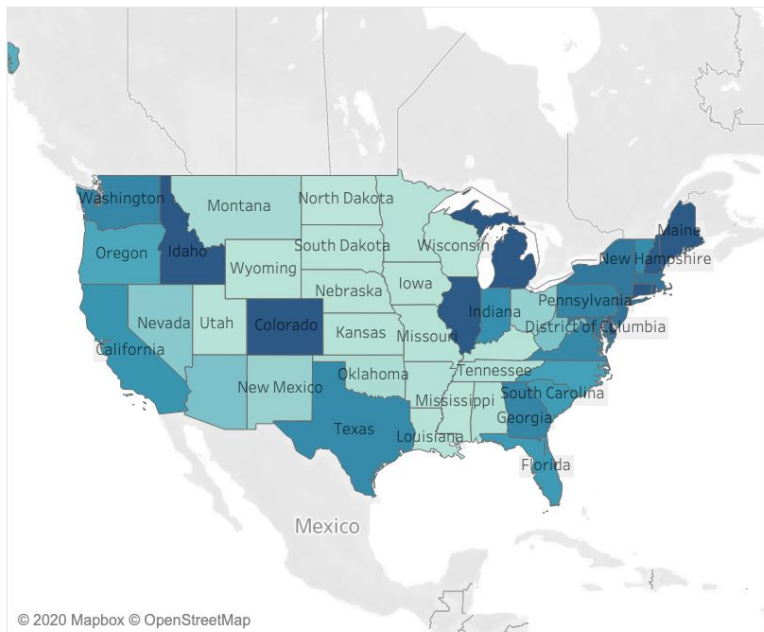


Participation rates are negatively correlated to total/composite scores

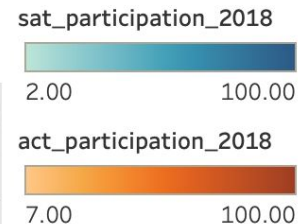
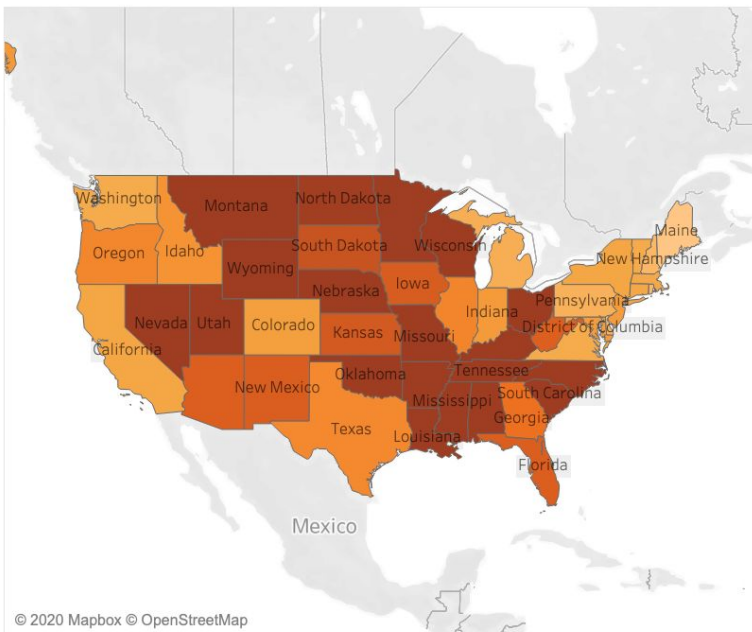


SAT participation rates are higher along the coast while ACT participation rates are higher in inland states

SAT Participation Rates 2018



ACT Participation Rates 2018



# Conclusions & Recommendations

# Conclusions

- Participation rates are heavily influenced by state contracts
- Participation rates between SAT and ACT are negatively correlated
  - High participation rates in one test usually means low participation in the other i.e. students usually choose either test
- Participation rates are negatively correlated to test scores
  - The higher the participation rates, the lower the scores and vice versa
- SAT is generally more popular along the coast than in inland states



# Recommendations

- Partnering with states to make SAT mandatory (like in the case study of Colorado & Illinois)
- Target states with no mandatory ACT testing AND low SAT participation rates
- Reducing barriers for SAT
  - Making it more accessible to low income groups by providing fee waivers
  - Free online test practise material
  - SAT school day as part of school curriculum
- Build a better marketing strategy to compete with ACT

Q&A