Standardized test participation rates and income

Lucus Lee
Derrick Lim
Clarence Thng

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THE OVERVIEW

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The following analyses were done:

1. Identify trends between SAT and ACT
2. Examine if income affects the participation rates of SAT and ACT
3. Identify the correlation between income (FRPM) and test performance

With these relevant findings, we can then suggest possible actions to help non-technical executives of the College Board maintain SAT's competitive edge over ACT (i.e. higher participation rate).

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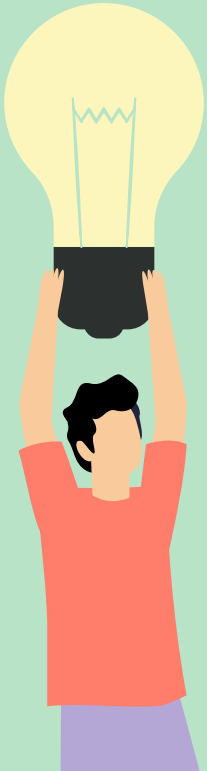
THE FINDINGS

DATA ANALYSED



Exploratory Data Analysis

SAT & ACT participation rates from 2017-2020

SAT & ACT scores from 2017-2020

Income statistics from 2015 -2019

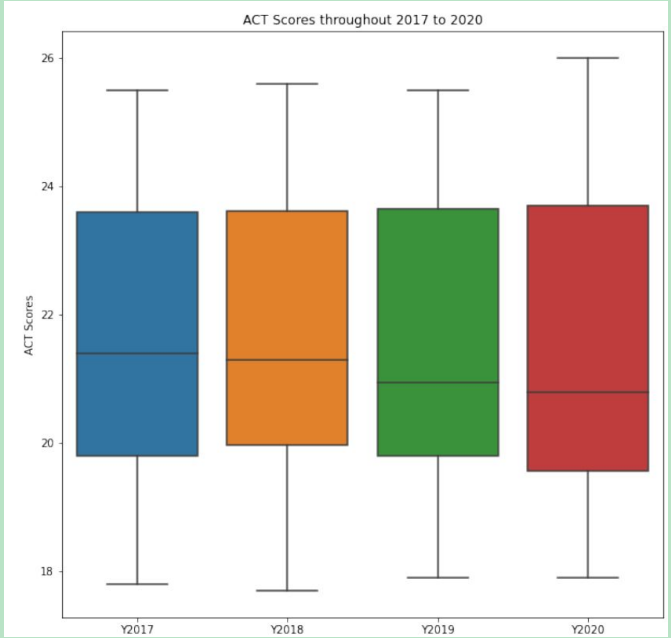
KEY FINDINGS

Negative correlation between ACT and SAT participation rate

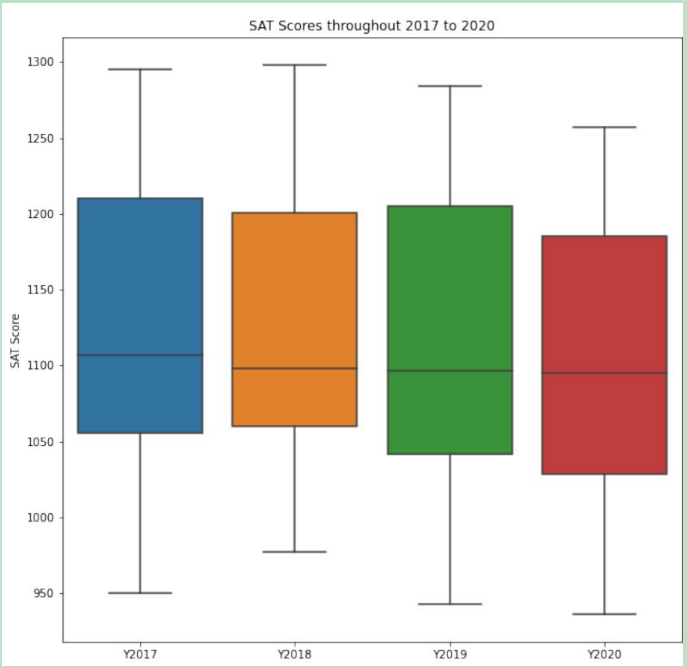
Positive correlation between SAT participation rate and income

Positive correlation between income and test performance

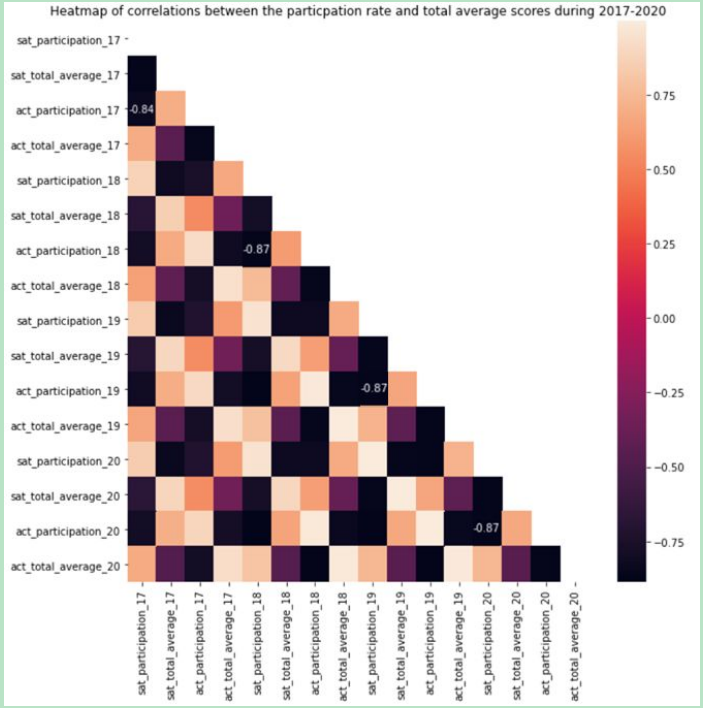
STATISTICS



- Both boxplot are positively skewed.

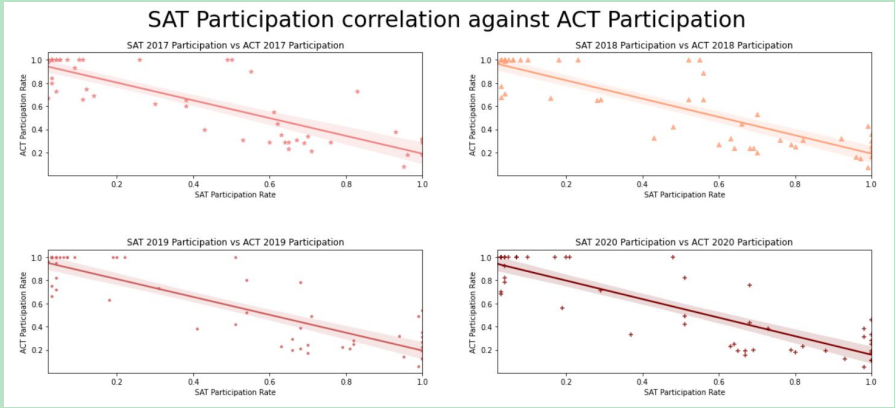


- ACT seems to be moving uptrend whereas SAT is moving downwards

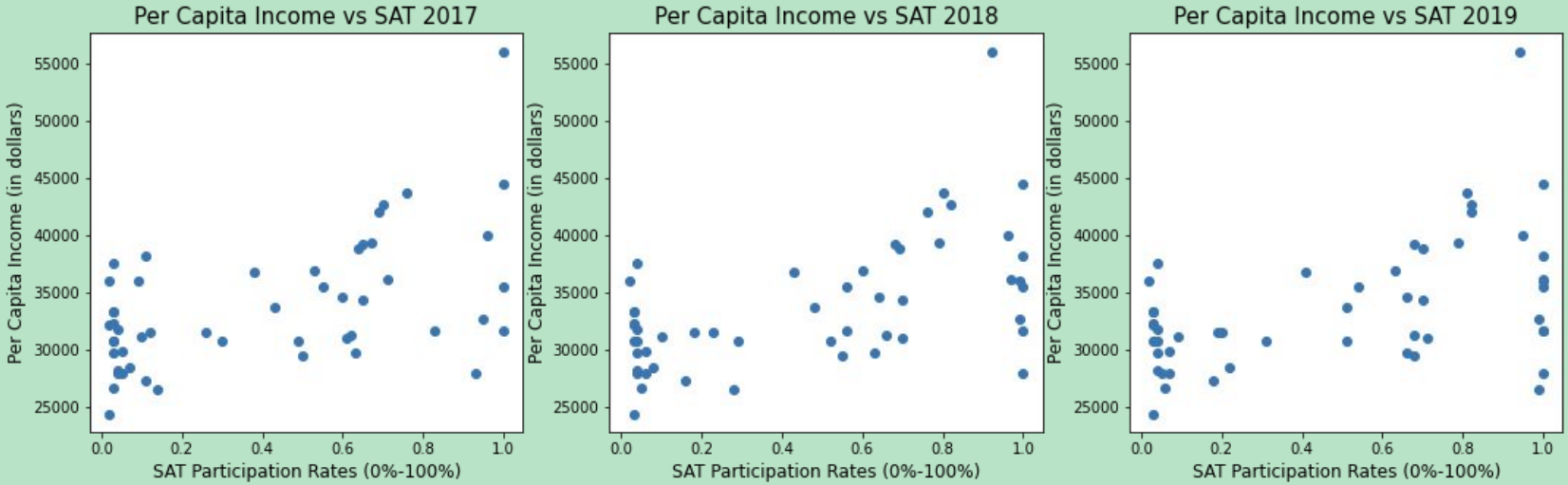


STATISTICS

- ACT & SAT participation rates are highly negatively correlated

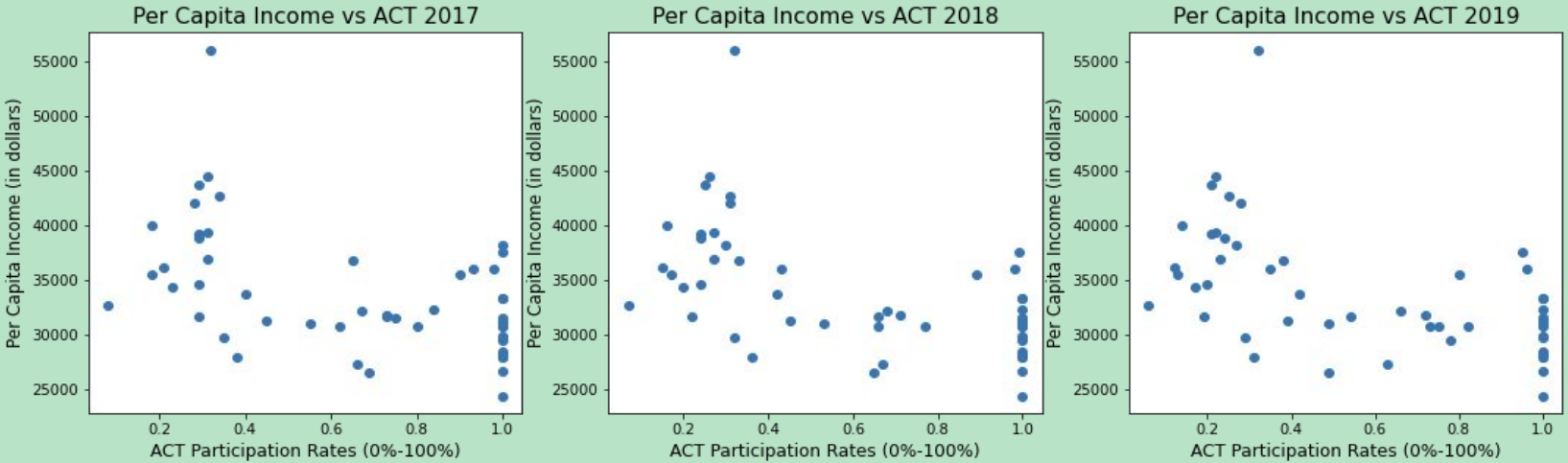


STATISTICS



- SAT participation rate and per capita income are positively correlated

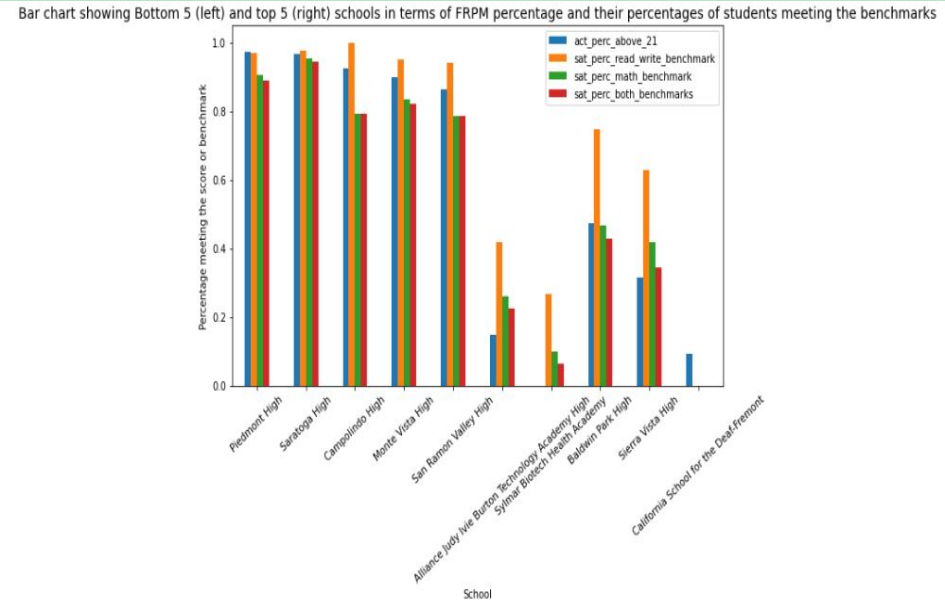
STATISTICS



- Conversely, ACT participation rate and per capita income are negatively correlated

The Free or Reduced Priced Meals program

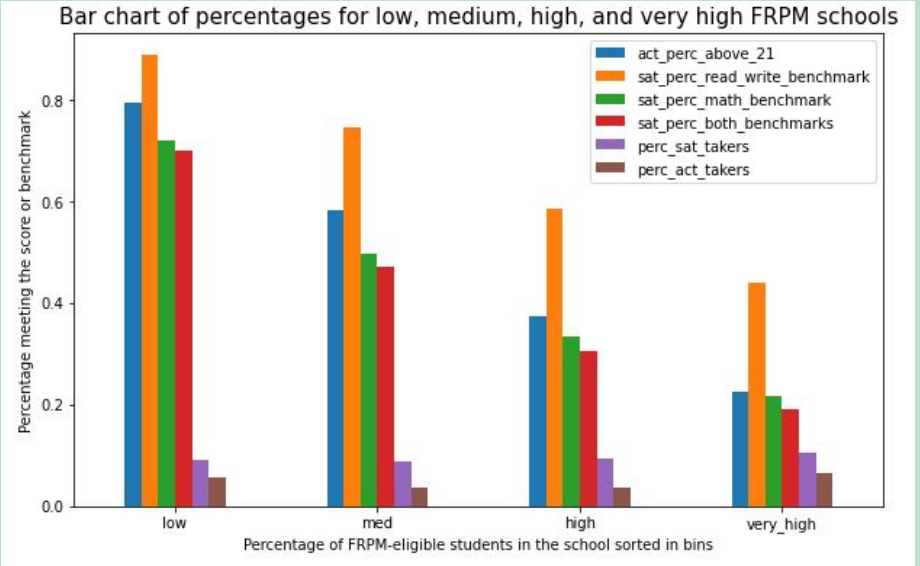
- Part of the National School Breakfast and Lunch Program for California
- Funded by the Department of Agriculture and other non-profit agencies
- Targeted to help low-income children in schools



STATISTICS

- Classified the schools by quartiles based on FRPM percentage
- As FRPM percentage increased, test performance decreased

- The 5 schools with the lowest percentage of FRPM eligible students also had the highest test performances
- Hence: Lower income led to lower test performance



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THE CONCLUSION

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- Lower participation rate = higher test performance
- Higher income = higher SAT participation rate
- Higher income = higher test performance

Recommendation:

- Target states with higher income to increase SAT participation rates
- Devote more resources to better preparation materials

THANKS!

Do you have any questions?