SAT Analysis

Prathik Chukkapalli

Purpose and Problem Statement

- Students studying for the SAT have many different commitments.
- Looking for how students can efficiently study and improve their SAT scores.
- An article on Piqosity, which is a personalized learning website for standard testing, explains how the best way to improve scores is to focus on improving the sections you did weaker on.

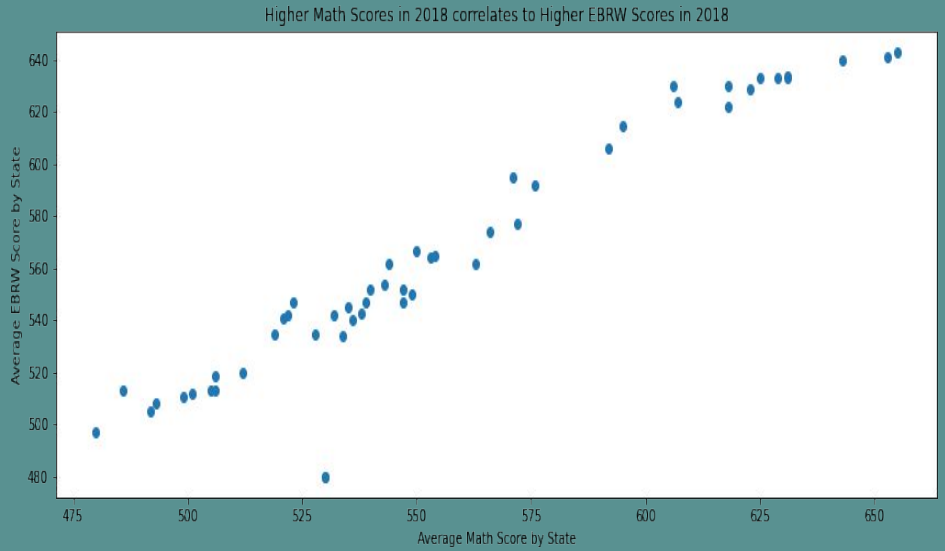
Data Dictionary

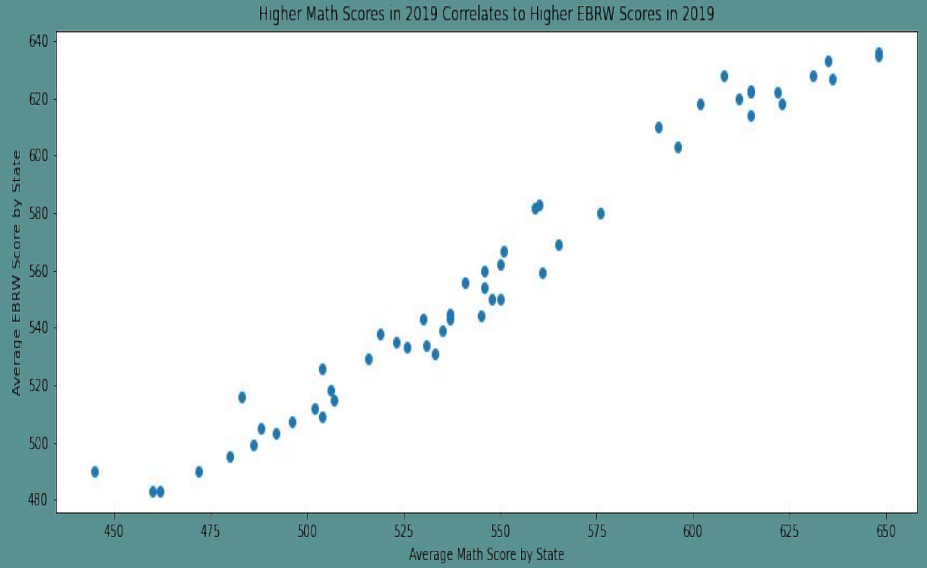
Feature	Type	Dataset	Description
state	object	sat_2018_fixed	List of states
ebrw	int	sat_2018_fixed	Avg. ebrw scores by state in 2018
math	int	sat_2018_fixed	Avg. math scores by state in 2018
total	int	sat_2018_fixed	Avg. total SAT score in 2018
state	object	sat_2019_fixed	List of states
ebrw	int	sat_2019_fixed	Avg. ebrw scores by state in 2019
math	int	sat_2019_fixed	Avg. math scores by state in 2019
total	int	sat_2019_fixed	Avg. total SAT score in 2019

Boolean Analysis and SD Analysis

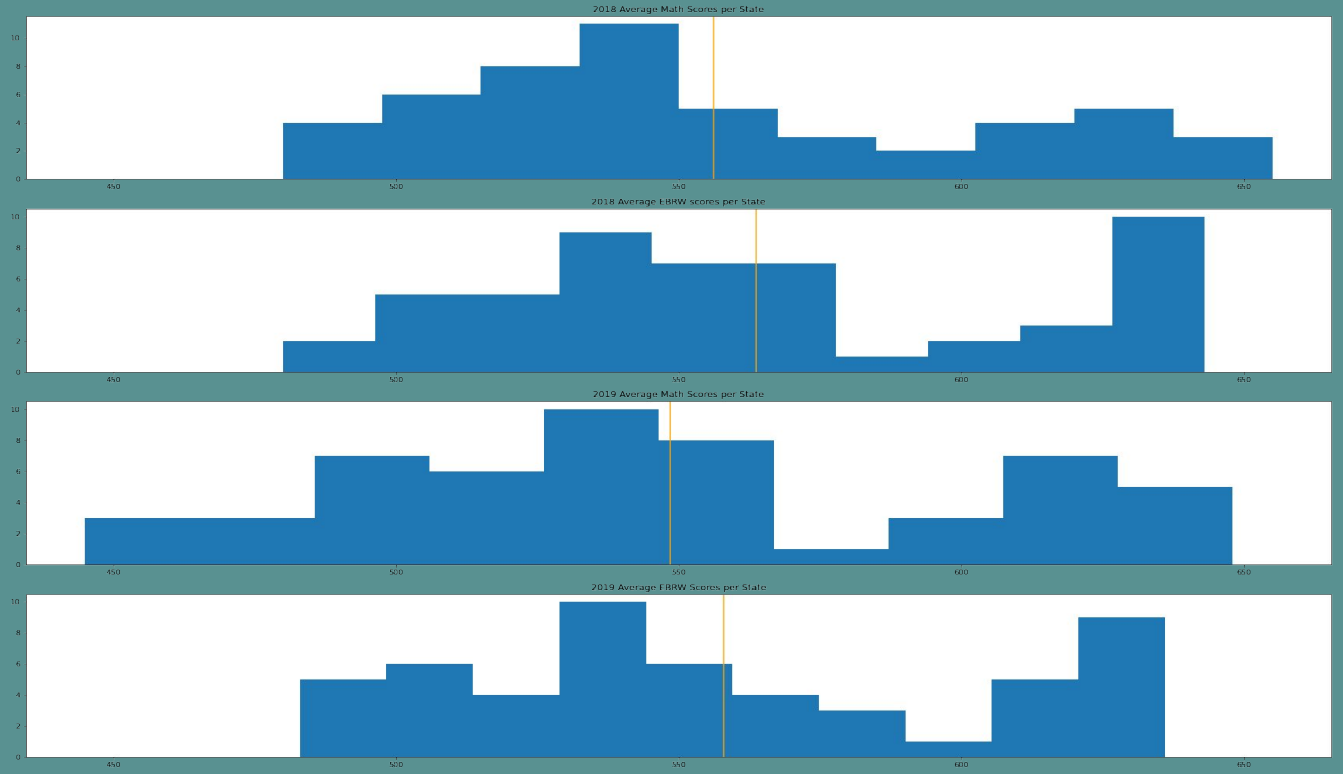
- In 2018 43/51 states had the average ebrw score higher than the math score.
- In 2019 41/51 states had the average ebrw score higher than the math score.
- 2018 had ebrw_SD = 47.04, math_SD = 47.30, and total_SD = 93.23
- 2019 had ebrw_SD = 47.10, math_SD = 53.28, and total_SD = 100.04

Scatterplot Analysis





Histogram Analysis



Conclusion

- Majority of states had a lower average math score than average EBRW score.
- There are a higher number of states that have a higher EBRW score than math score.
- Scatterplot shows correlation between higher math scores and higher EBRW scores.
- Based on the claim by piqosity, it is best for students to work on the lower scoring section.
- This is why I believe teachers and students should focus more on improving math skills and knowledge.