



Working on the SAT Format

An analysis to understand the averages of
the SAT Scores across all states for 2017
and 2018

Problem Statement

- Since the new SAT format was released in March 2016, the College Board would like to find out if there has been **any impact on the SAT scores** since the implementation of the format
- This project explores the trends in **SAT and ACT scores for 2017 and 2018** and endeavors to **identify states** which may need additional assistance to equip their students for better SAT preparation

SAT 2018 Scores

Blue: top 5 performers

Red: bottom 5 performers



SAT 2017 Scores

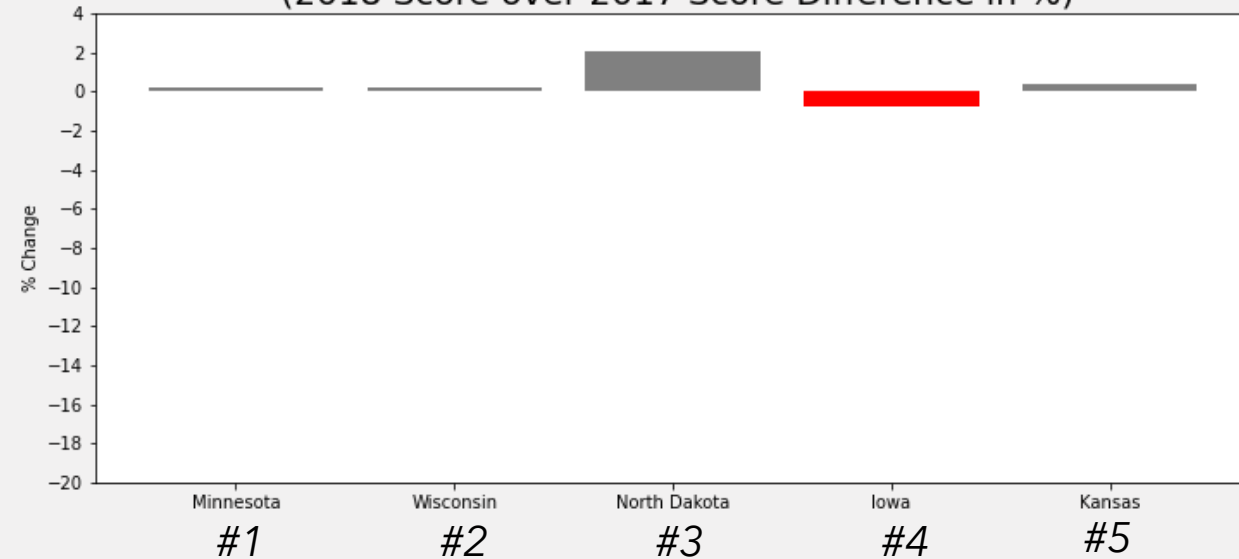
Blue: top 5 performers

Red: bottom 5 performers

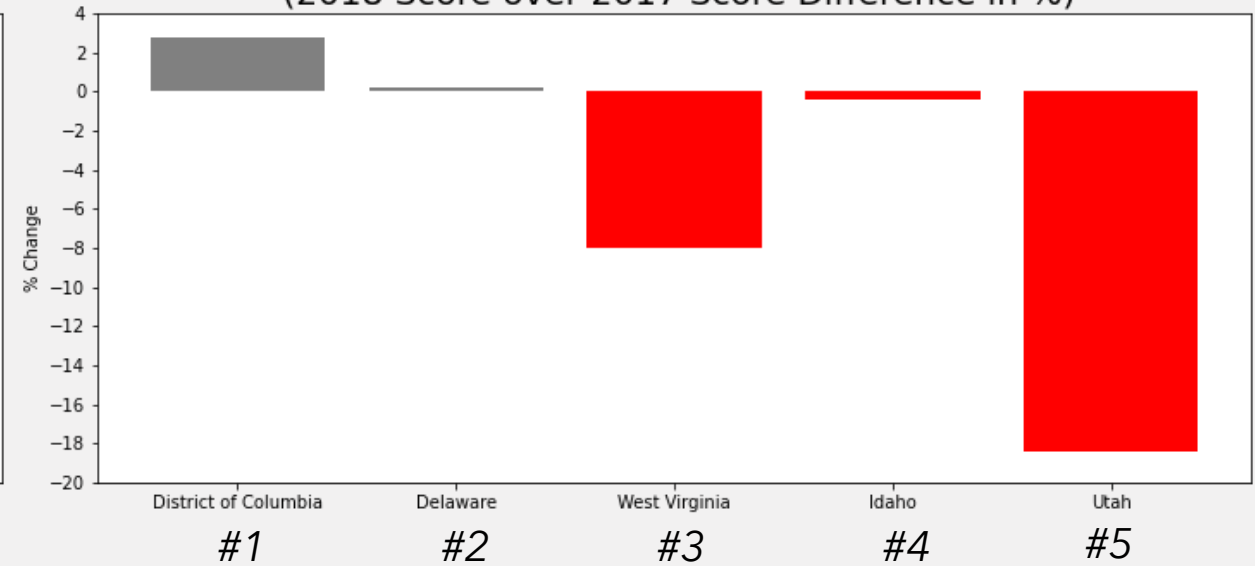


Top 5 states for SAT 2018 adjusted well to the new changes of the SAT format introduced in March 2016, but not for the bottom 5 states

SAT Average Score for Top 5 Performing States in 2018
(2018 Score over 2017 Score Difference in %)



SAT Average Score for Bottom 5 Performing States in 2018
(2018 Score over 2017 Score Difference in %)

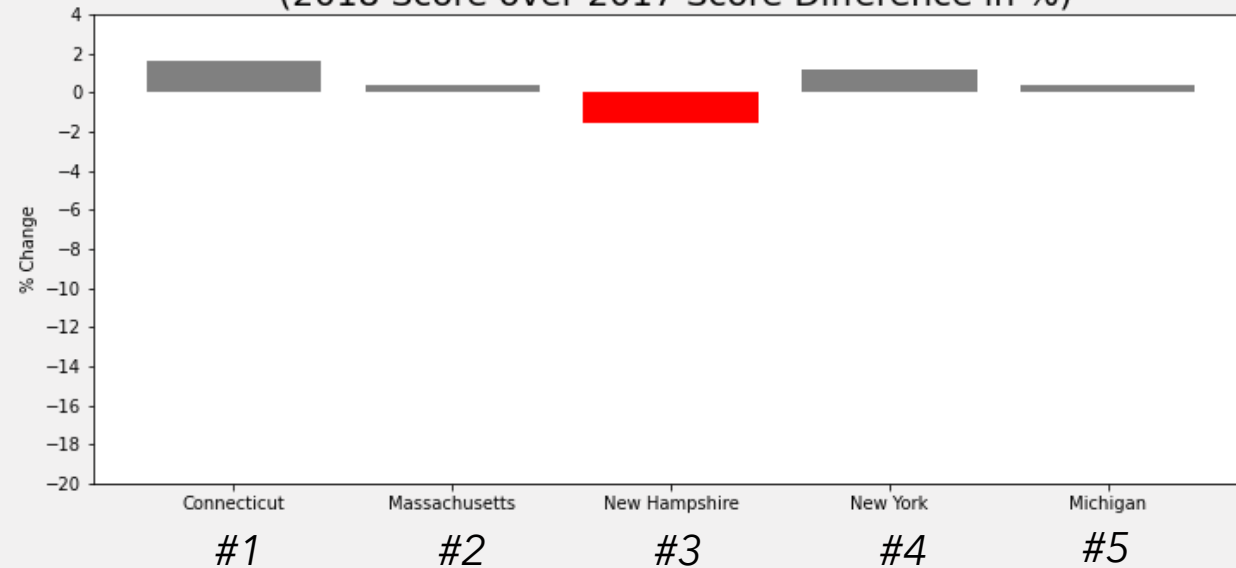


Grey bars reflect **positive** score change
Red bars reflect **negative** score change

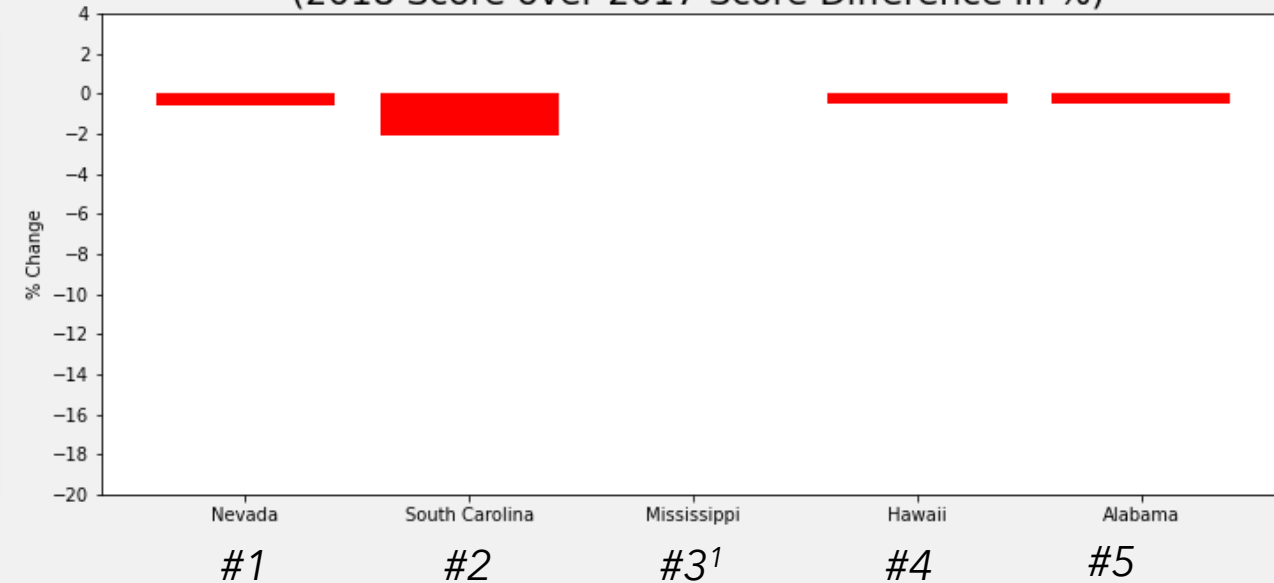
- Further zooming in on Utah's score, the negative change was driven by the Evidence-Based Reading and Writing section (dropped 144 points)
- For West Virginia's score, the negative change was equally driven by both the Evidence-Based Reading and Writing Section and Math Section (dropped 42 and 45 points respectively)

On the other hand, we see minimal changes to the ACT scores for top 5 and bottom performing states

ACT Average Score for Top 5 Performing States in 2018
(2018 Score over 2017 Score Difference in %)



ACT Average Score for Bottom 5 Performing States in 2018
(2018 Score over 2017 Score Difference in %)



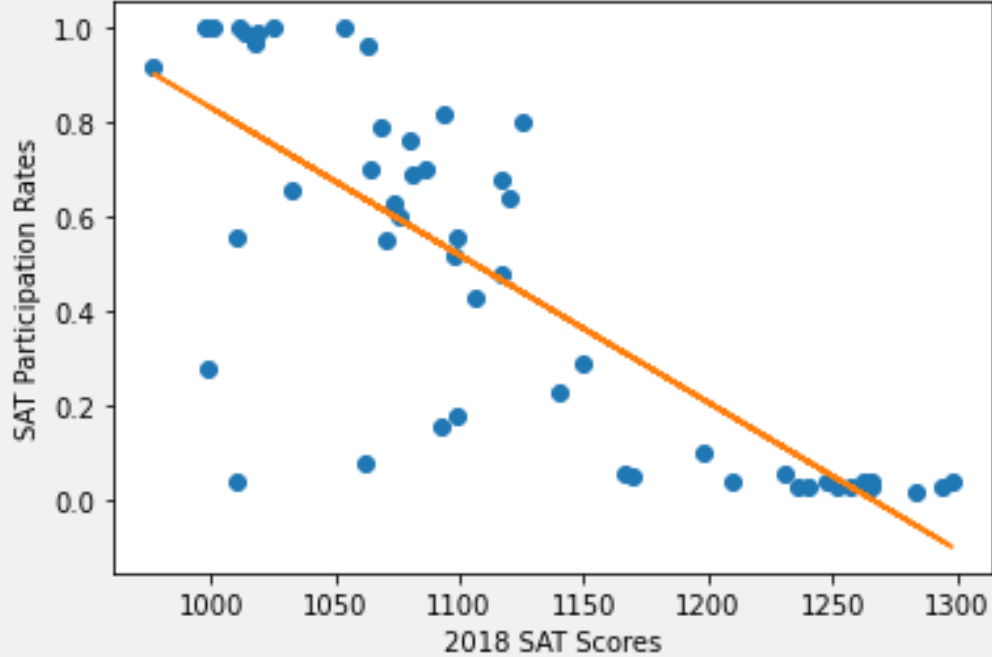
¹ Mississippi saw 0% change

Grey bars reflect **positive** score change
Red bars reflect **negative** score change

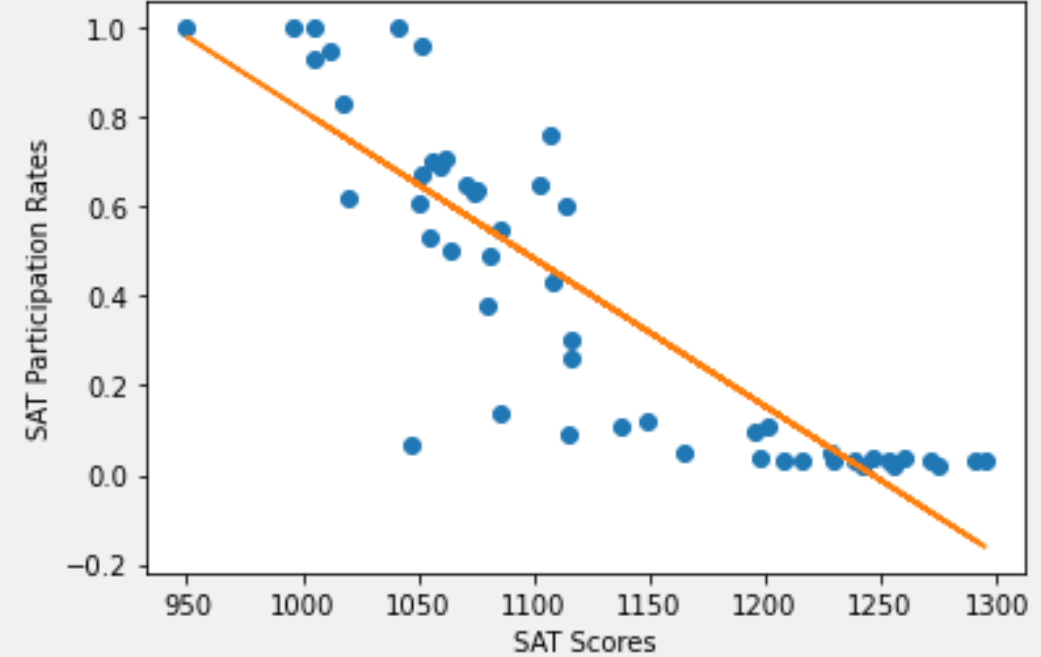
- As a comparison, 2018 **ACT scores** fluctuated between -2% to 2% over 2017 scores for both top 5 and bottom 5 performing states
- By comparing SAT and ACT scores, we could infer that the SAT scores were more influenced by the new SAT format introduced in 2016 and less due to students who were taking the tests

Participation rates influence SAT average scores of states for both 2017 and 2018

Relationship of SAT Scores & Participation Rates for 2018



Relationship of SAT Scores & Participation Rates for 2017



- Interestingly, we note that states with high SAT scores had very low participation rates
- This observation was applicable for both 2017 and 2018

Key Takeaways and Recommendations

Key Takeaways

- The new SAT format impacted the scores of bottom 5 performing states
- Top 5 performing states adapted well to the new SAT format
- Bottom 5 states saw drops in scores after the new format was implemented

Recommendation

- More SAT preparation support for the lowest 5 performing states, particularly for Utah which saw a noticeable drop in score
 - Specific support on Evidence-Based Reading and Writing SAT Section should be given to Utah students
- Improve the exam format based on continuous feedback after encouraging more participation across the states

Limitations

- Our data on SAT scores may not be an accurate measurement of students' ability in a particular state if participation rates vary widely