



2017 - 2018 Analysis of SAT Scores

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Problem Statement

- Collegeboard has informed us that there has been a sudden drop in overall average SAT scores in some states from the year 2017 to 2018. Whether this is a random phenomena or not, we wanted to use statistical analysis to derive if there is any particular reason behind such phenomena.

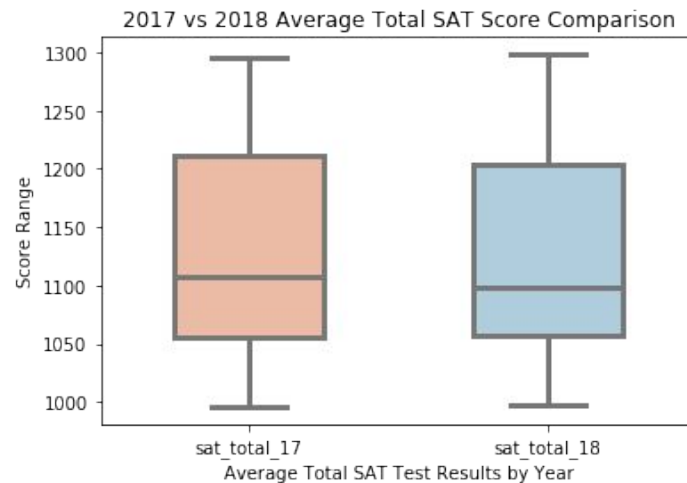
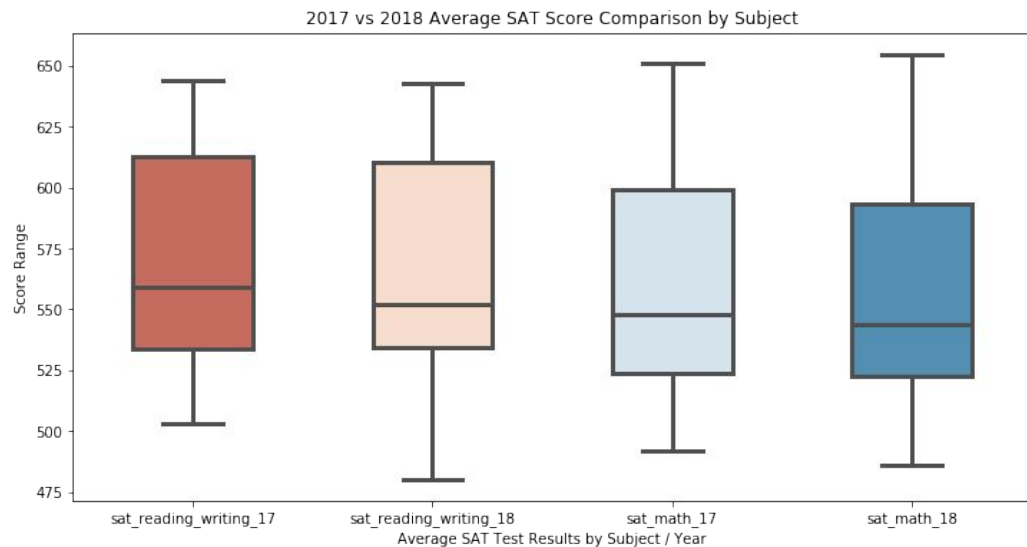
Methodology

- Confirm data originally proposed theory (is there really a drop in average SAT scores?)
- Sort through the states to identify particular problematic States
- Verify whether there is a correlation between the significant drop in SAT scores vs. participation rate from 2017 to 2018

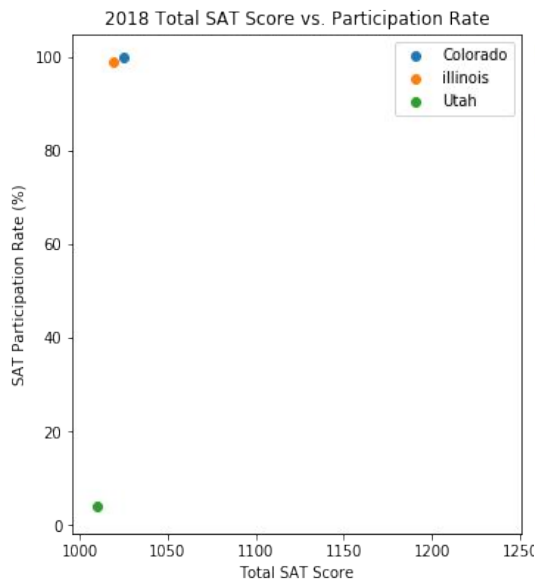
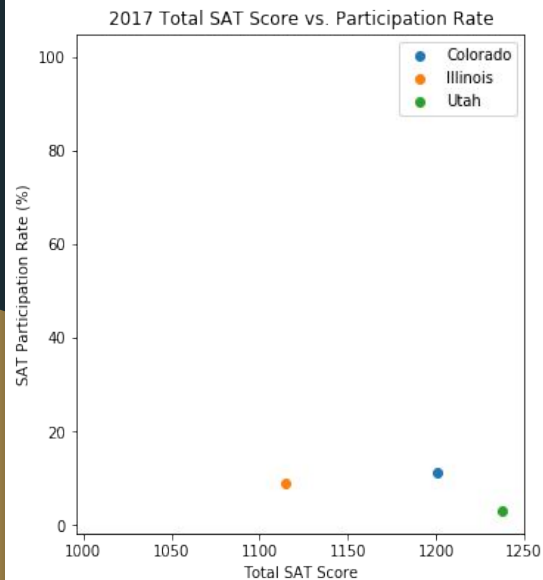
Data Source :

- 2017 & 2018 Average SAT Scores by State (Collegeboard : Official SAT Conducting Organization)

Average SAT Test Results (Subject / Overall)



Total SAT Score Comparison (2017 vs. 2018)



Utah (2017) Source : <https://reports.collegeboard.org/pdf/2017-utah-sat-suite-assessments-annual-report.pdf>

Total and Section Scores

Total Score			ERW			Math		
1400–1600	278	22%	700–800	326	28%	298	23%	
1200–1390	515	40%	600–690	511	40%	441	35%	
1000–1190	337	28%	500–590	298	23%	380	30%	
800–990	138	11%	400–490	120	9%	132	10%	
600–790	9		300–390	22		26		
400–590	0		200–290	0		0		
Mean	1238		Mean	624		614		
SD	185		SD	96		102		

Utah (2018) Source : <https://reports.collegeboard.org/pdf/2018-utah-sat-suite-assessments-annual-report.pdf>

Total and Section Scores

Total Score			ERW			Math		
1400–1600	314	22%	700–800	337	24%	351	25%	
1200–1390	510	38%	600–690	551	39%	403	28%	
1000–1190	429	30%	500–590	368	28%	470	33%	
800–990	157	11%	400–490	146	10%	165	12%	
600–790	15		300–390	23		36		
400–590	0		200–290	0		0		
Mean	1230		Mean	618		612		
SD	191		SD	95		108		

Conclusion

- Colorado & Illinois : Strong correlation between the two specific state's to new policy mandating the SAT examination as a high school graduation requirement and the drop in the overall average of their respective SAT scores.
- Utah : we were able to conclude the sudden drop in SAT scores was due to misinformation provided by the Collegeboard's dataset through further research.

Recommendation

- Students need more time to adjust as well as more of a formal education regarding the SATs to better prepare them

Furthermore . . .

- We would like to investigate other implications on the specific subjects of the SAT given that we have a reliable dataset.