

# Standardized Test Analysis: SAT

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# What are we investigating?

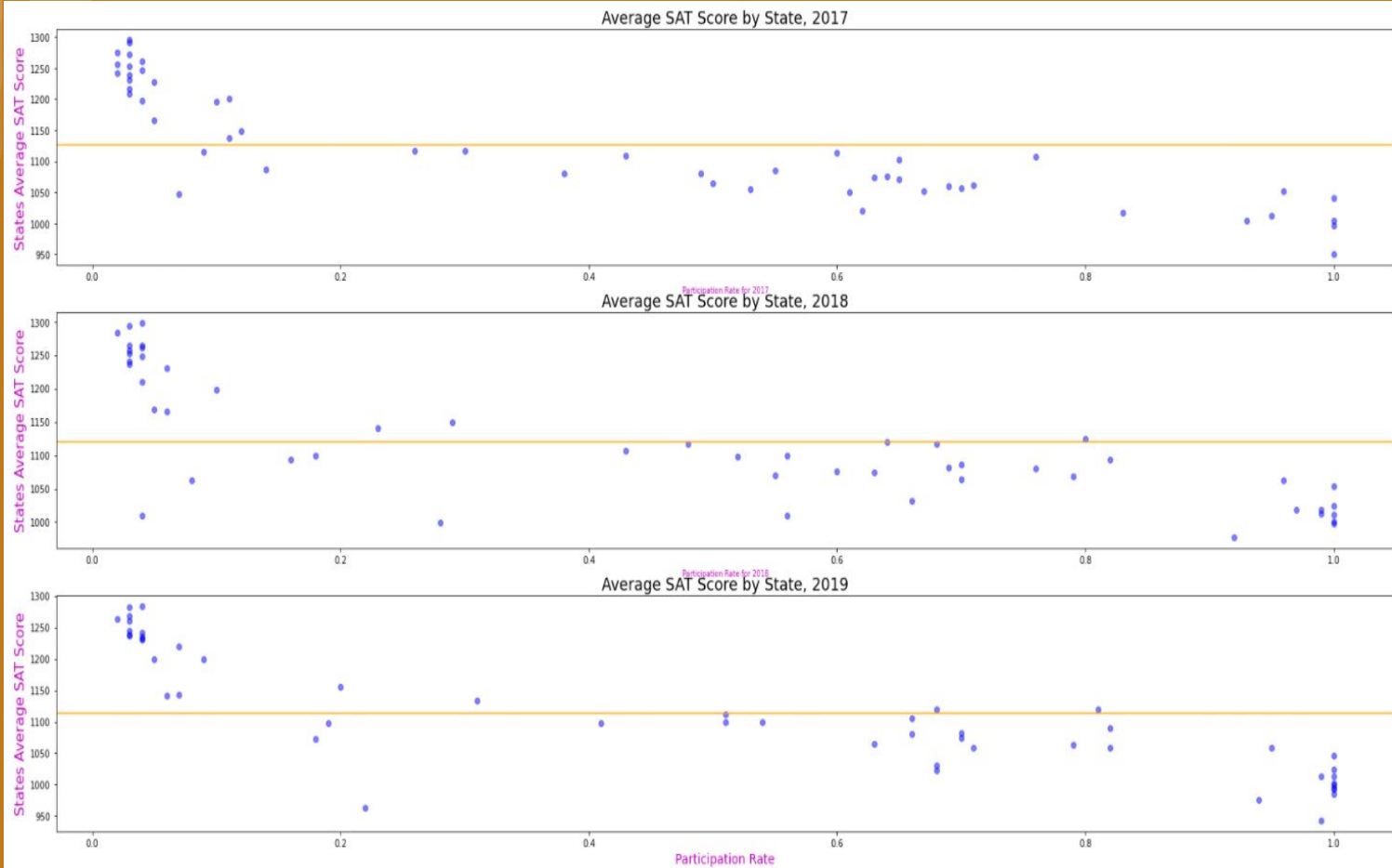
This project aims to study SAT scores and compare them to their counterparts. More specifically we will be looking at the major west coast states (CA, OR, WA) and compare their SAT scores and statistics to a few east coast states that are not mandated to take the SATs. We hope to find strengths/weaknesses of the states test takers and decide which one needs help allocating resources to improve test scores.





## The dataset:

Feature	Type	Dataset	Description
state	object	Name of states	50 states of USA and District of Columbia
participation_2017	float	SAT 2017 Data	The participation rate of students that took the SAT in 2017 in that state (unit is in decimal, where .50 represents %50)
reading_writing_score_2017	int	SAT 2017 Data	Mean score of the reading & writing score of students that took the SAT in 2017
math_score_2017	int	SAT 2017 Data	Mean score of the math score of students that took the SAT in 2017
sat_total_2017	int	SAT 2017 Data	Mean score of the students combined score of math score & reading/writing score for the SAT in 2017
participation_2018	float	SAT 2018 Data	The participation rate of students that took the SAT in 2018 in that state (unit is in decimal, where .50 represents %50)
reading_writing_score_2018	int	SAT 2018 Data	Mean score of the reading & writing score of students that took the SAT in 2018
math_score_2018	int	SAT 2018 Data	Mean score of the math score of students that took the SAT in 2018
sat_total_2018	int	SAT 2018 Data	Mean score of the students combined score of math score & reading/writing score for the SAT in 2018
participation_2019	float	SAT 2019 Data	The participation rate of students that took the SAT in 2019 in that state (unit is in decimal, where .50 represents %50)
reading_writing_score_2019	int	SAT 2019 Data	Mean score of the reading & writing score of students that took the SAT in 2019
math_score_2019	int	SAT 2019 Data	Mean score of the math score of students that took the SAT in 2019
sat_total_2019	int	SAT 2019 Data	Mean score of the students combined score of math score & reading/writing score for the SAT in 2019



The above image shows SAT data from 2017 - 2019. Each dot represents a state. As participation rate increases for the SATs, the average score will go down.

# West Coast vs East Coast

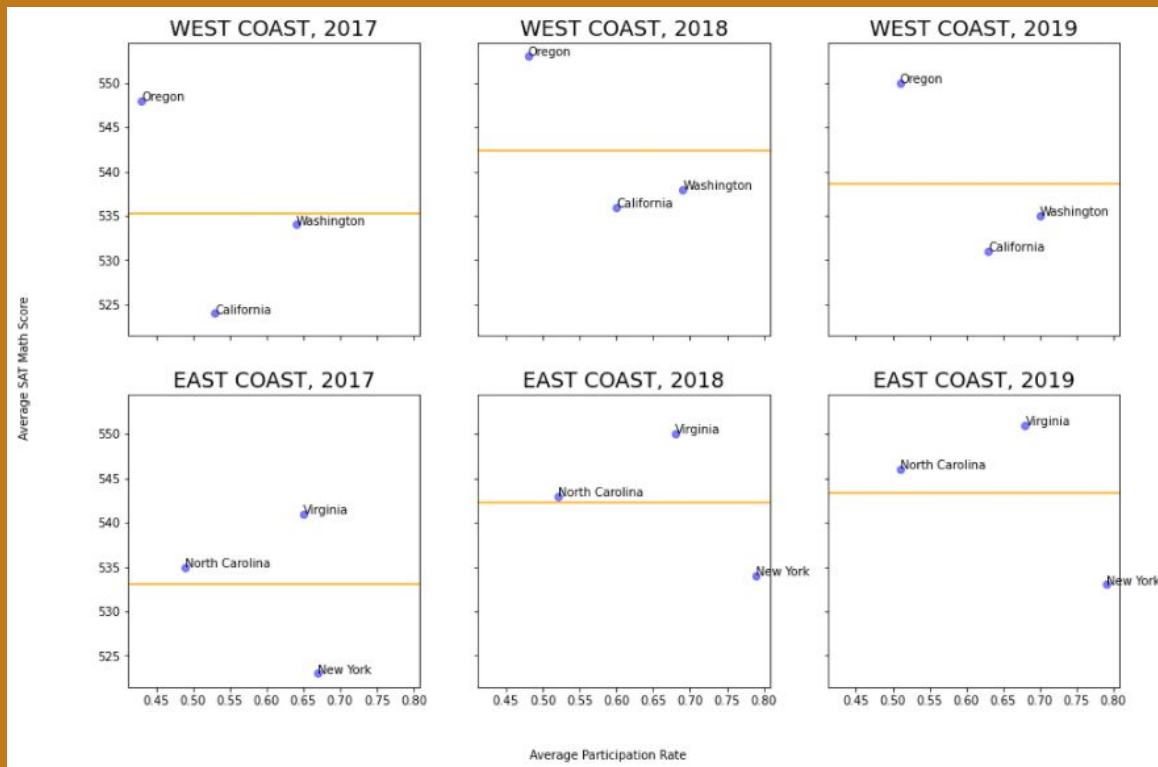
California  
Oregon  
Washington

*Versus*

New York  
Virginia  
North Carolina

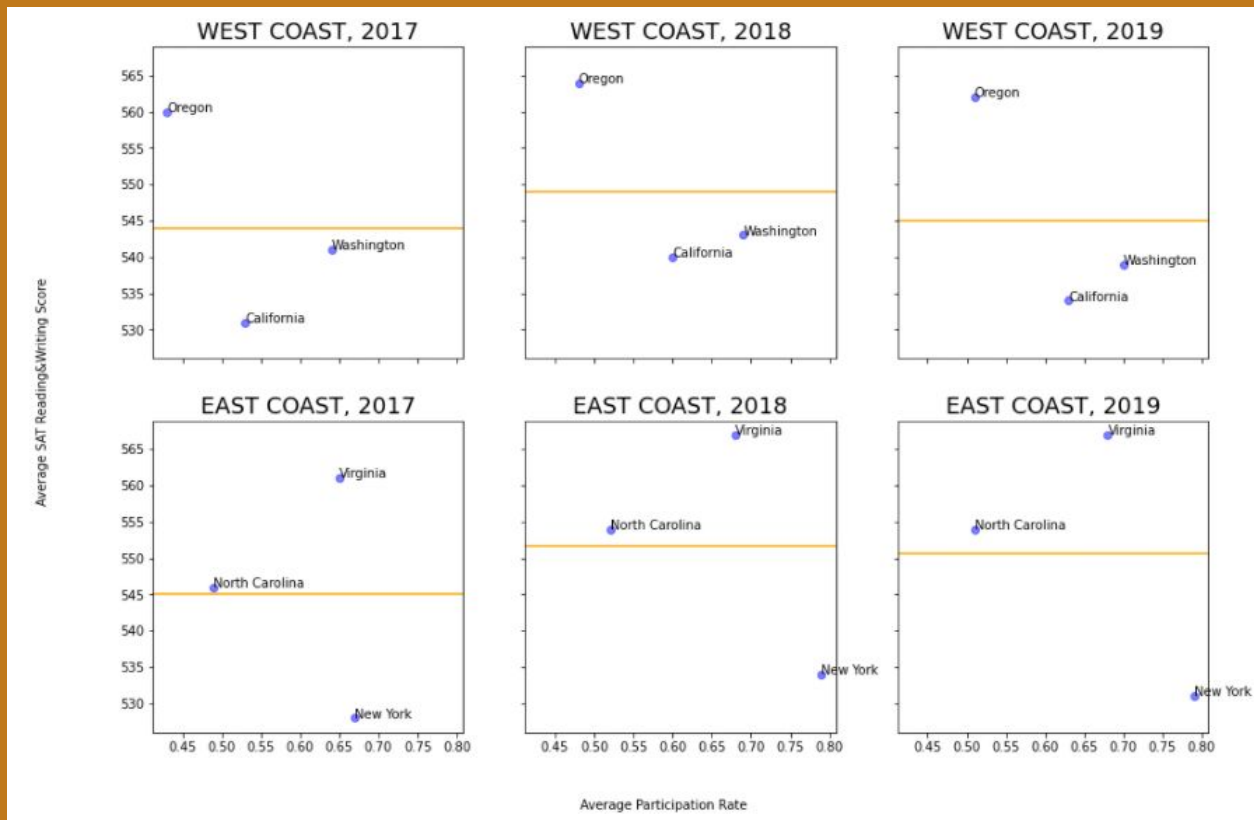


# Round 1: Math



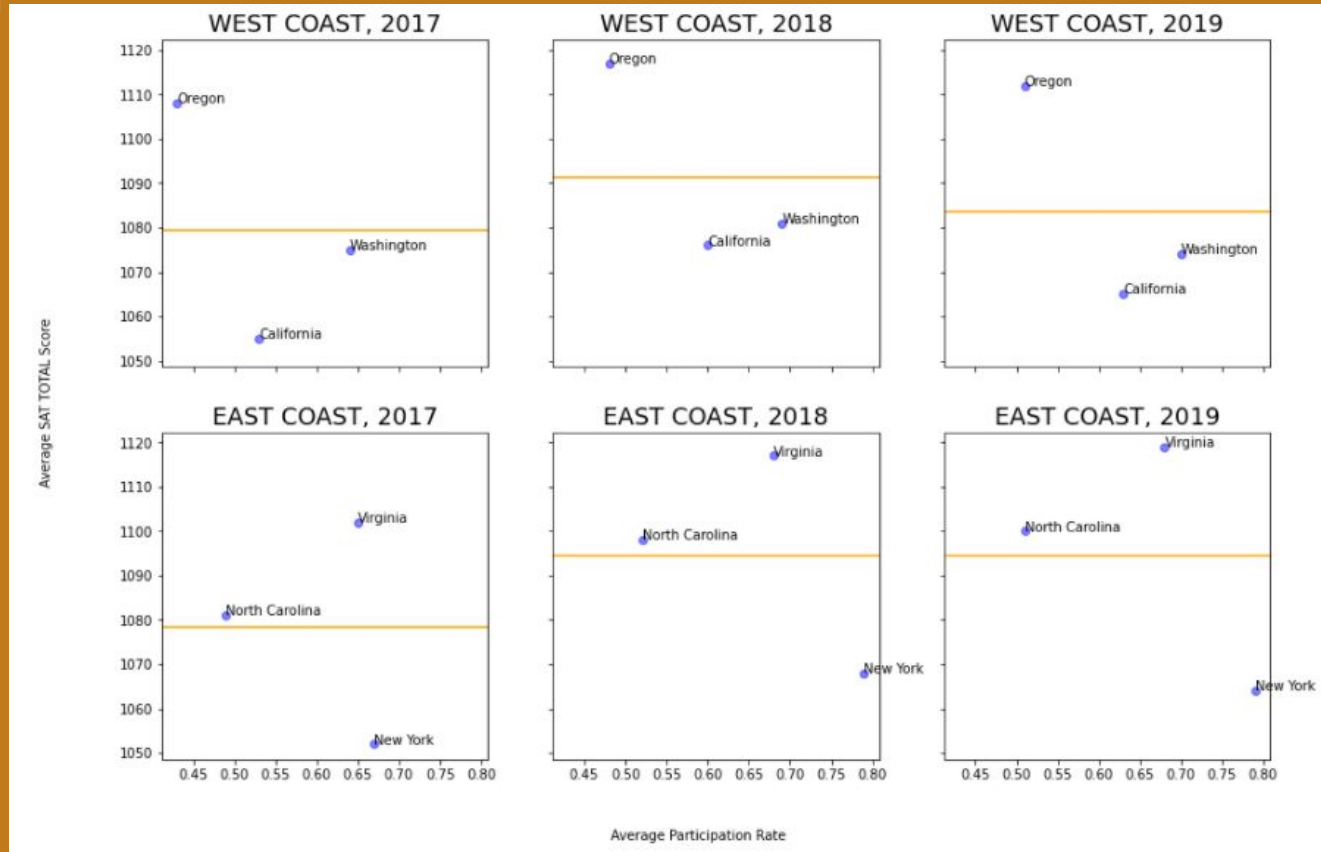
The above image shows SAT data from 2017 - 2019 for west coast states (CA, OR, WA) and east coast states (NY, VA, NC). Each dot represents a state. East coast states beat west coast states in average SAT Math score.

# Round 2: Reading and Writing



The above image shows SAT data from 2017 - 2019 for west coast states (CA, OR, WA) and east coast states (NY, VA, NC). Each dot represents a state. East coast states beat west coast states in average SAT Reading & Writing score.

# Round 3: Total SAT Score



The above image shows SAT data from 2017 - 2019 for west coast states (CA, OR, WA) and east coast states (NY, VA, NC). Each dot represents a state. East coast states beat west coast states in average SAT total score.



# 2018 SAT Data

## California: 262,228 Testers

Total Score		
1400–1600	20,799	8%
1200–1390	52,839	20%
1000–1190	90,139	34%
800–990	77,516	30%
600–790	20,620	8%
400–590	315	
Mean	1076	
SD	205	

[2018 California SAT Suite of Assessments Annual Report \(collegeboard.org\)](#)

## Oregon: 17, 476 Testers

Total Score		
1400–1600	1,229	7%
1200–1390	4,541	26%
1000–1190	7,210	41%
800–990	3,955	23%
600–790	532	
400–590	9	
Mean	1117	
SD	180	

[2018 Oregon SAT Suite of Assessments Annual Report \(collegeboard.org\)](#)

## Washington: 48, 574 Testers

Total Score		
1400–1600	3,191	7%
1200–1390	10,926	22%
1000–1190	17,843	37%
800–990	12,630	26%
600–790	3,841	8%
400–590	143	
Mean	1081	
SD	201	

[2018 Washington SAT Suite of Assessments Annual Report \(collegeboard.org\)](#)

## New York: 162, 551 Testers

Total Score		
1400–1600	10,598	7%
1200–1390	33,998	21%
1000–1190	56,915	35%
800–990	45,409	28%
600–790	15,234	9%
400–590	397	
Mean	1068	
SD	205	

[2018 New York SAT Suite of Assessments Annual Report \(collegeboard.org\)](#)

## Virginia: 61,576 Testers

Total Score		
1400–1600	5,179	8%
1200–1390	15,602	25%
1000–1190	24,169	39%
800–990	14,250	23%
600–790	2,350	4%
400–590	26	
Mean	1117	
SD	189	

[2018 Virginia SAT Suite of Assessments Annual Report \(collegeboard.org\)](#)

## North Carolina: 54,987 Testers

Total Score		
1400–1600	3,391	6%
1200–1390	12,907	23%
1000–1190	22,163	40%
800–990	14,176	26%
600–790	2,336	4%
400–590	14	
Mean	1098	
SD	183	

[2018 North Carolina SAT Suite of Assessments Annual Report \(collegeboard.org\)](#)

explained  
personal related results  
particular thoughts  
tips unnecessary details restated purpose issue briefly  
importance buttons action arguments general useful  
considered introduction topic points written everything  
rewrite possible need readers ideas support type  
single Basic case Restate provide don avoid section ve consists  
synthesis  
stated  
answered  
words  
choose context  
conclusions  
focusing sections clear re statement Note main opinion ask method  
tone subject suggest future papers things  
informal prices explain writing effective aimed social reading  
elements actions already Discuss aimed social reading  
approaches agenda decided easiest exactly focused  
concise narrowed

# Conclusion

## Research