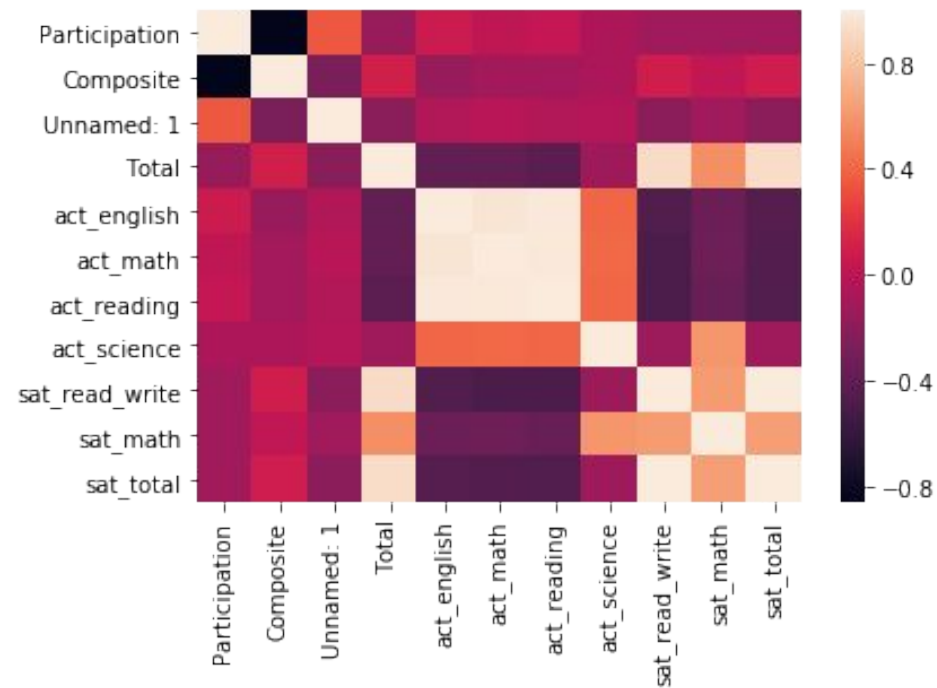


# Project 1

## SAT & ACT Analysis

**Andre Jimenez**



Data science problem: What factors influence participation rates and scores in various states

## Cleaning the data

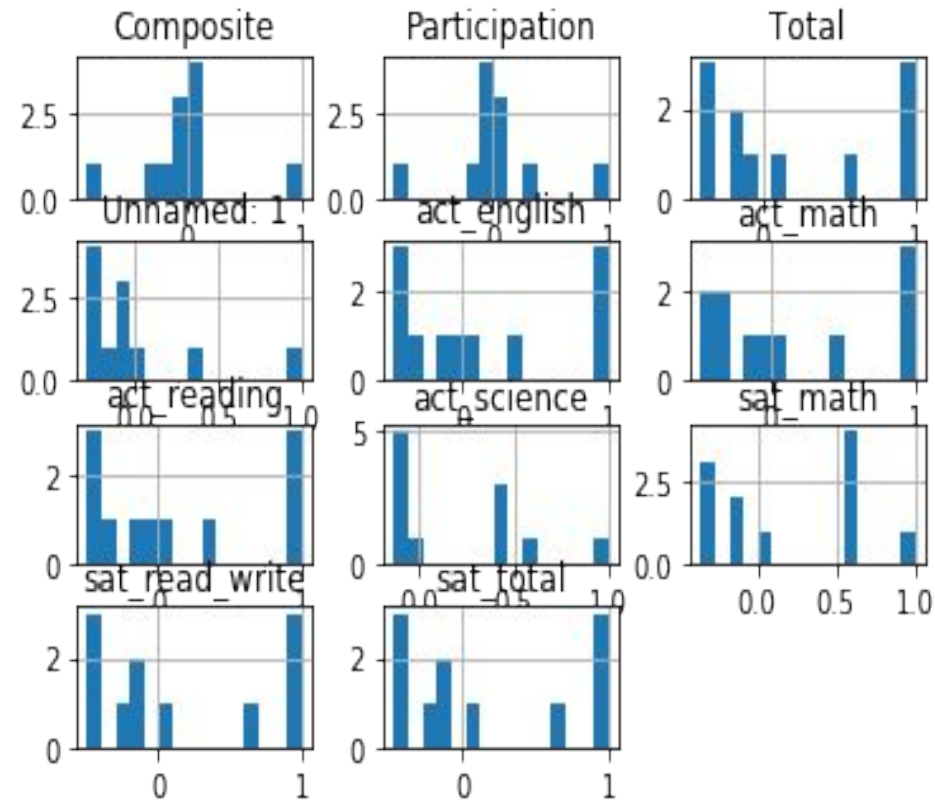
- The lowest average 2017 SAT math score in the nation (Maryland) is way too low (in comparison to all of the other states) and this observation is reinforced by its 472 deficit from reaching its reported total score of 1060.
- the lowest average 2017 ACT science score in the nation (also Maryland) is way too low (in comparison to all of the other states) and this observation is reinforced by its 20.9 deficit from reaching its reported composite average score of 23.6

## Procedure/Methodology

### DATA CLEANING

Important Step: Formatting  
the data into the right  
step

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Which states have the highest and lowest participation rates for the:

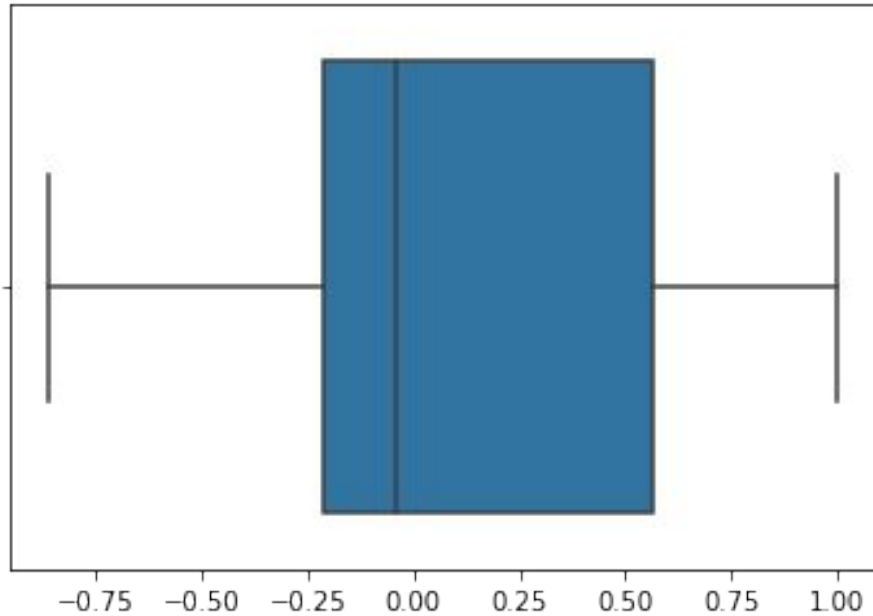
- 2017 SAT? Minnesota
- 2017 ACT? New Hampshire
- 2018 SAT? Minnesota
- 2018 ACT? Connecticut

Which states have the highest and lowest mean total/composite scores for the:

- 2017 SAT? District of Columbia
- 2017 ACT? Nevada
- 2018 SAT? District of Columbia
- 2018 ACT? Nevada

Feature	Type	Dataset	Description
sat_state	object	SAT	State where 2017 SAT Tests were administered
sat_participation	int	SAT	2017 SAT state participation percentage rate
sat_read_write	int	SAT	the average 2017 SAT reading+writing scores
sat_math	int	SAT	the average 2017 SAT math scores
sat_total	int	SAT	the total of the 2017 SAT math & reading+writing scores of students in each US state

Feature	Type	Dataset	Description
act_state	object	ACT	State where 2017 ACT Tests were administered
act_participation	int	ACT	the 2017 ACT participation percentage rate
act_english	float	ACT	the average 2017 ACT English scores
act_math	float	ACT	the average 2017 ACT math scores
act_reading	float	ACT	the average 2017 ACT reading scores
act_science	float	ACT	the average 2017 ACT science scores
act_composite	float	ACT	the composite (average) of the 4 2017 ACT Sections (English+math+reading+science) of students in each US state



I would recommend money is best spent on Nevada and Washington DC to improve SAT participation rates to in a state.

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