

Problem Statement:

How to increase Participation Rates for the SAT/ACT tests



ALASKA

Step 1: Obtain the Data

- Acquired 2017 and 2018 data for the ACT/SAT tests
- Cleaned up the data
- Merged them together

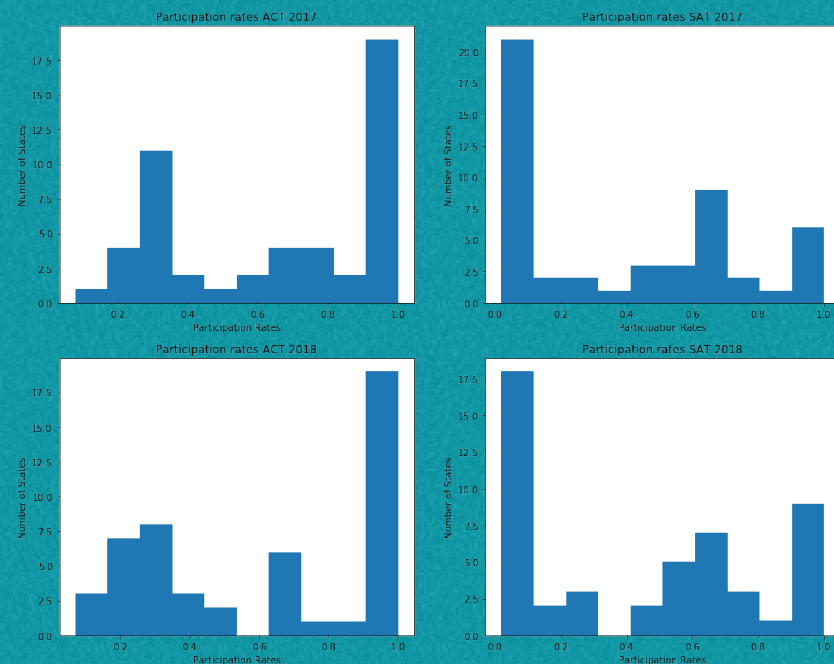
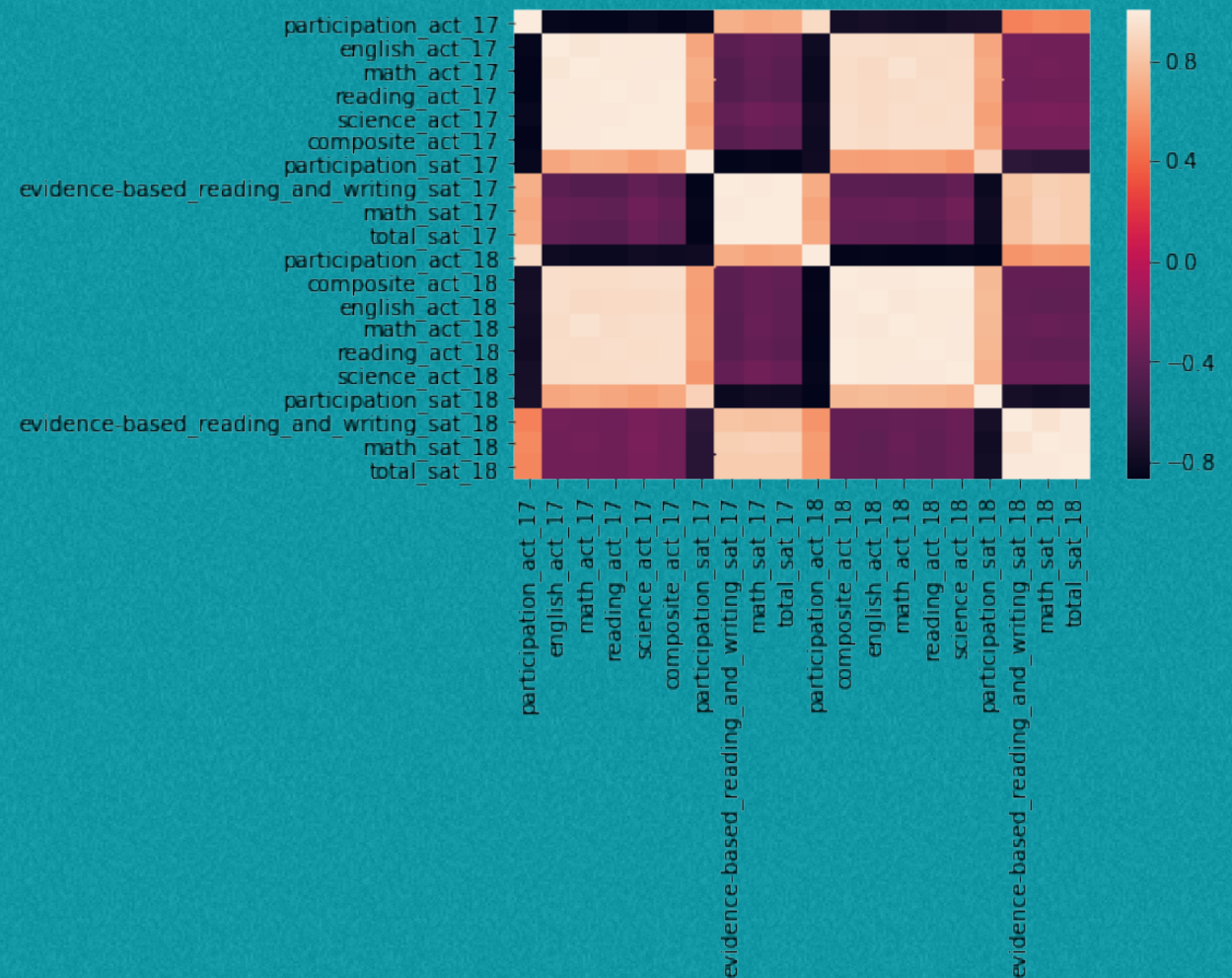
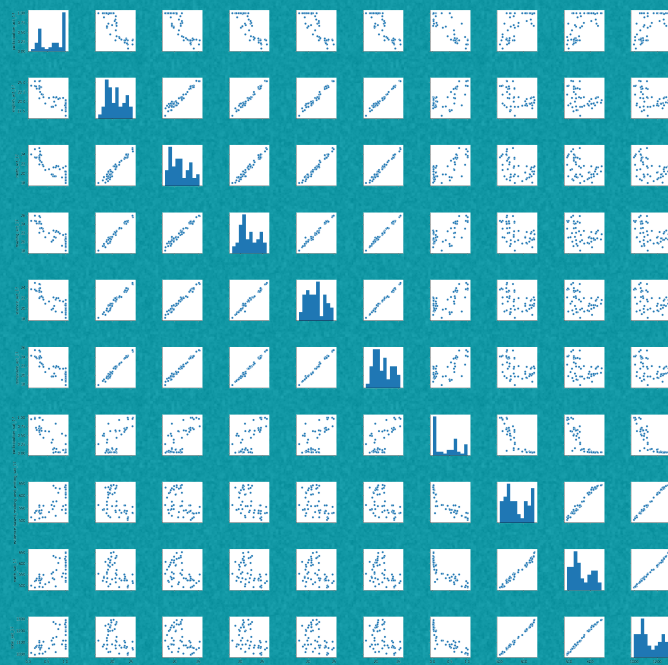
```
In [280]: # Merged combined dataframes and save to CSV
final = pd.merge(combined_2017, combined_2018, on = "state")
final.to_csv("../data/final.csv")
final.head(10)
```

Out[280]:

	state	participation_act_17	english_act_17	math_act_17	reading_act_17	science_act_17	composite_act_17	participation_sat_17	based_reading_and_wri
0	Alabama	1.00	18.9	18.4	19.7	19.4	19.2	0.05	
1	Alaska	0.65	18.7	19.8	20.4	19.9	19.8	0.38	
2	Arizona	0.62	18.6	19.8	20.1	19.8	19.7	0.30	
3	Arkansas	1.00	18.9	19.0	19.7	19.5	19.4	0.03	
4	California	0.31	22.5	22.7	23.1	22.2	22.8	0.53	
5	Colorado	1.00	20.1	20.3	21.2	20.9	20.8	0.11	
6	Connecticut	0.31	25.5	24.6	25.6	24.6	25.2	1.00	
7	Delaware	0.18	24.1	23.4	24.8	23.6	24.1	1.00	
8	Florida	0.73	19.0	19.4	21.0	19.4	19.8	0.83	
9	Georgia	0.55	21.0	20.9	22.0	21.3	21.4	0.61	

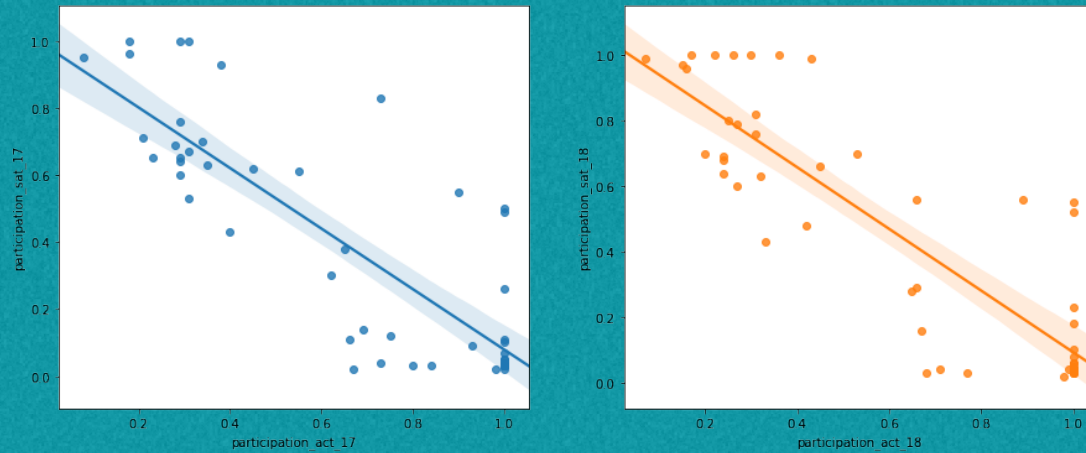
10 rows x 21 columns

Step 2: Visualise the Data

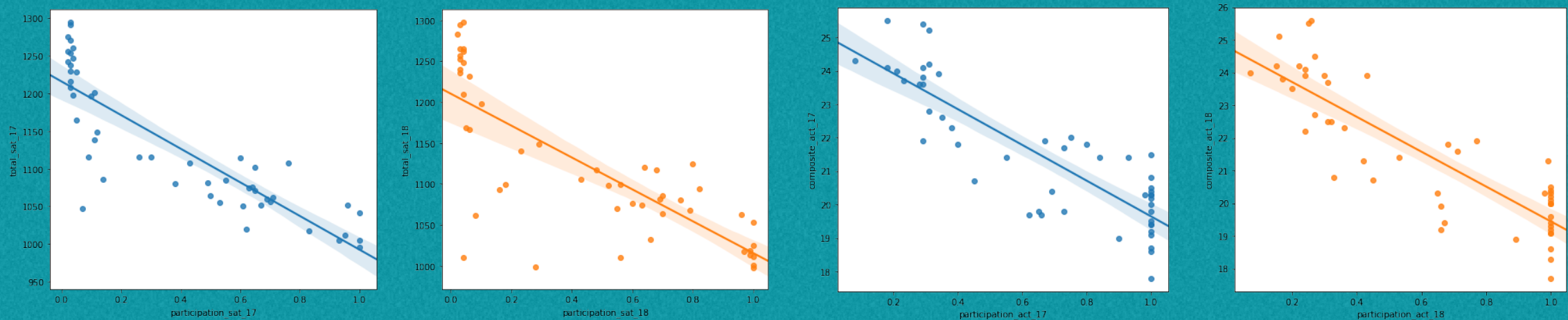


Step 3: Discovery

- Students either took SAT or ACT test.

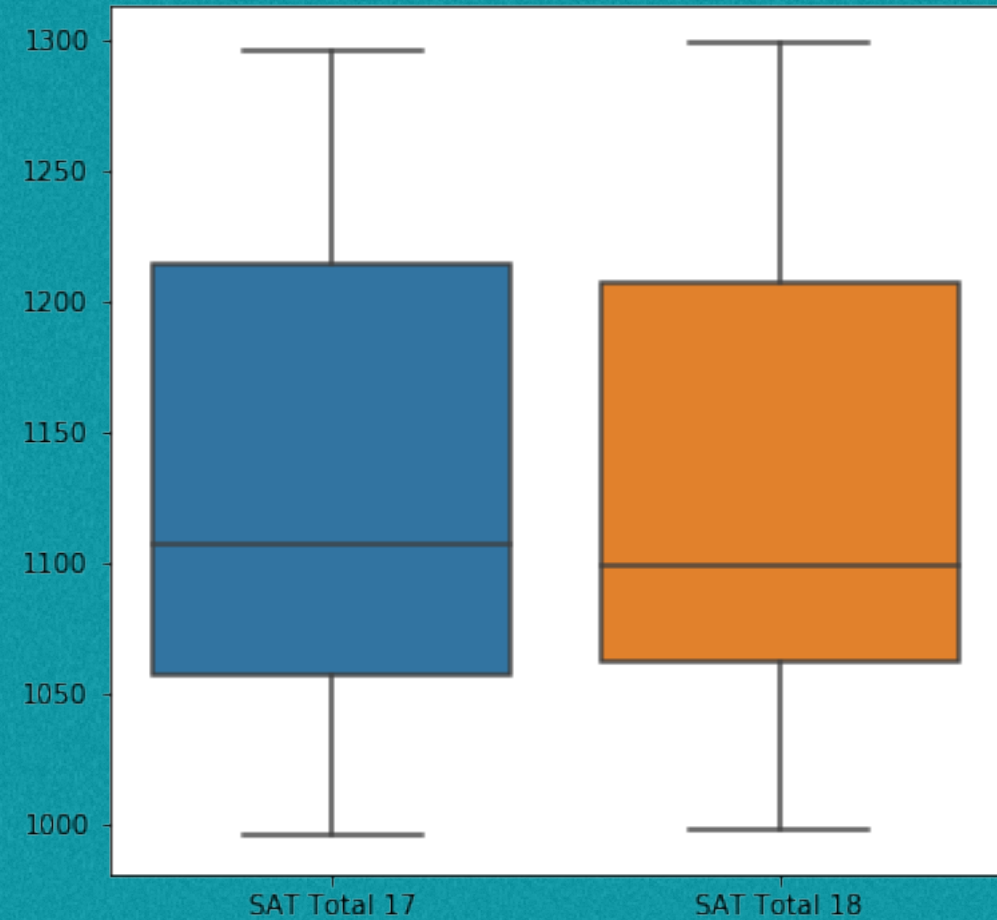
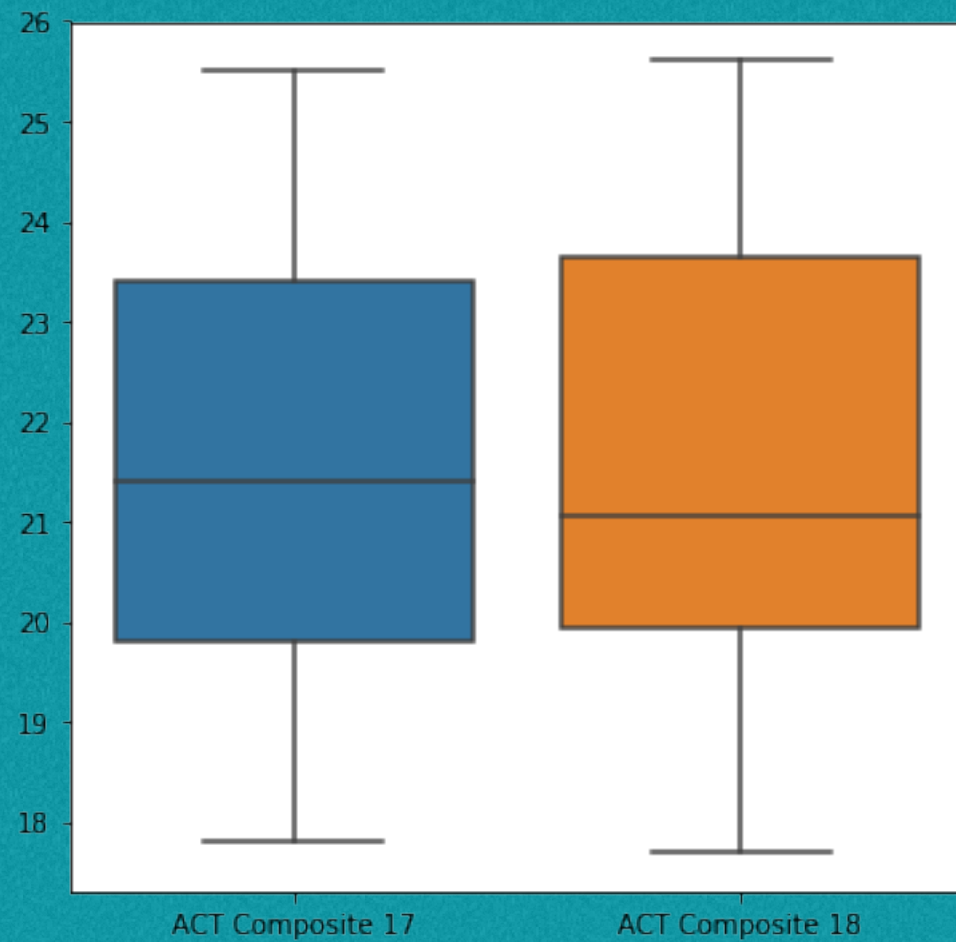


- States with lower participation perform better



Step 3: Discovery

- Students have been performing poorer in 2018 compared to 2017



Step 4: Back to the Problem

- 1) High School Graduates are no longer required to take SAT/ACT to acquire diploma
- 2) The scores of the student who takes the tests are below the country's average score.
- 3) The universities in Alaska still require the students to submit their SAT and ACT scores, this mean that there are lesser students going for their degrees in Alaska

Step 5: Recommendations

- 1) Offer **Free** SAT or ACT School day events
- 2) The Collage Board could start implementing SAT/ACT exams preparation lessons and courses in the high-schools for the students to better prepare them for the exams
- 3) The collage board should start promoting and reemphasising the importance of getting a collage education

Thank You

References

<https://www.orlandosentinel.com/news/education/os-ne-act-sat-florida-scores-20181024-story.html>

<https://www.adn.com/alaska-news/education/2016/06/30/students-no-longer-need-national-tests-to-graduate/>