



SAT & ACT ANALYSIS

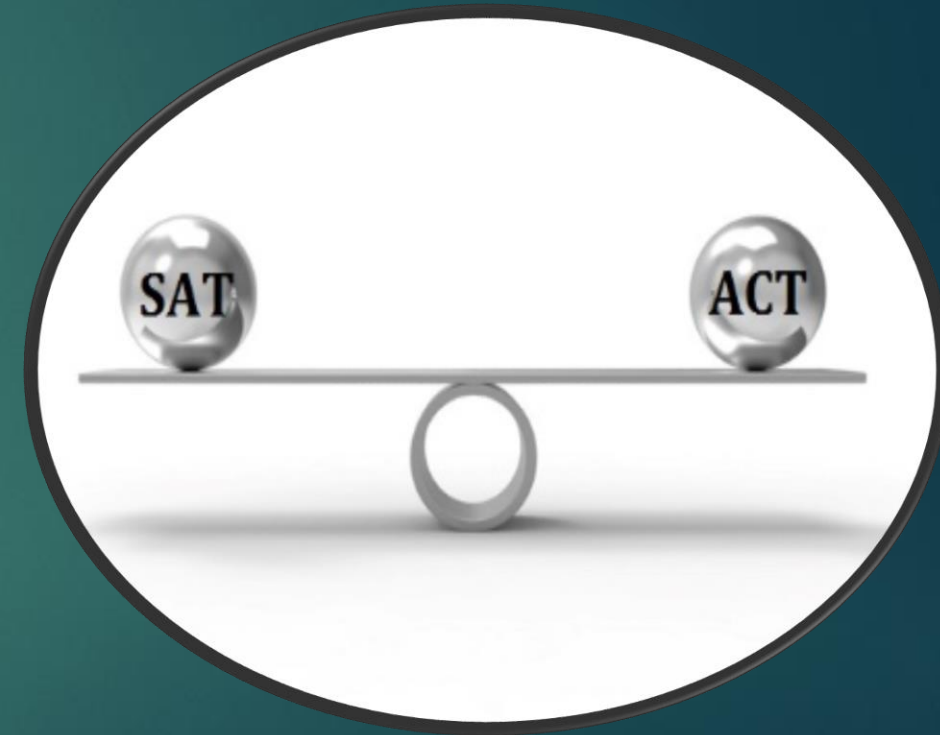
GENERAL ASSEMBLY

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Problem Statement:

What entrance exam should I take?

- ▶ Both ACT and SAT scores are used for college admissions decisions and awarding merit-based scholarships. But the difficulty for the student in how to choose between these two exams. As a journalist, I will provide a set of information to the college board so that they can make a decision through a set of data, and then they can help the students in how to choose between the two exams.
- ▶ At the outset, we will note the reason for choosing the data for the year 2017 because The SAT college exam was undergo sweeping changes on what's tested among these changes The test was a shift from its current score scale of 2400 back to 1600, and the College Board will partner for the first time with Khan Academy to provide free test preparation materials .
- ▶ we can take the results obtained after a full year of these changes, and also we will calculate the percentage of graduate students from us colleges in the year 2021, so the date for graduating students of the class of 2017 will be.



PROCEDURE & METHODS

What ?

SAT & ACT Scores

SAT & ACT participation results

Where ?

US states

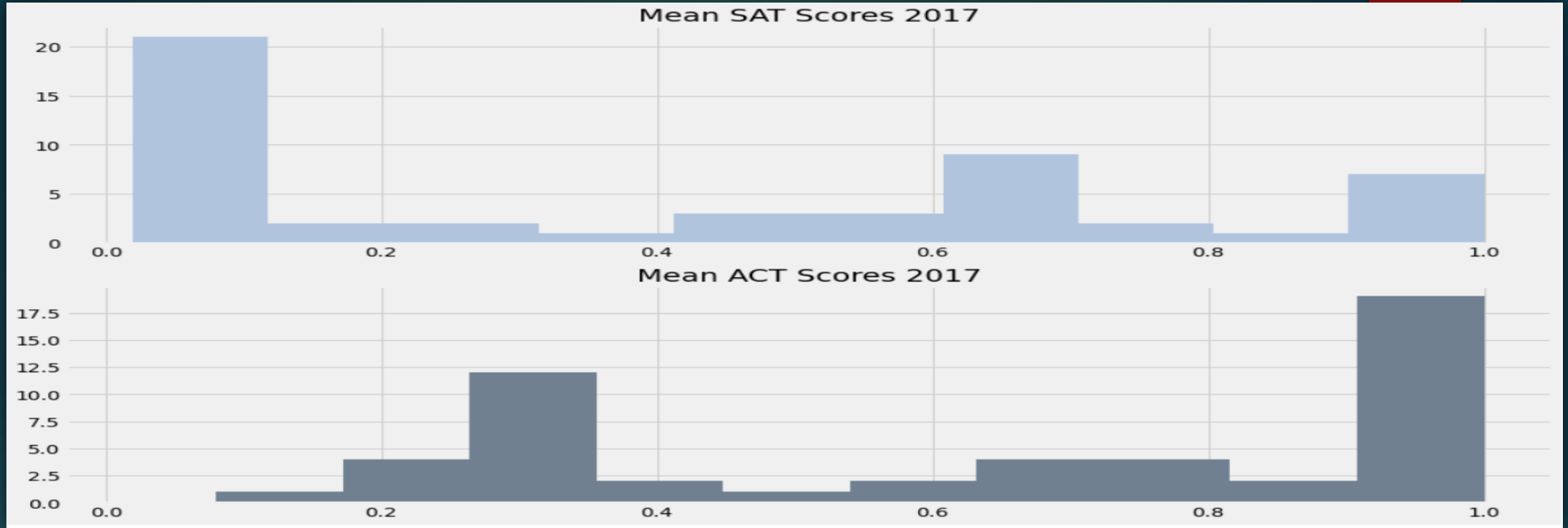
When ?

2017 test results

How ?

Python to analyze data





SAT Participation 2017

The spread of the data is from 2 to 100 with a central tendency (mean) of 38. There is no visible shape but we can say that it is slightly right skewed since the median falls to the left of the mean.

ACT Participation 2017

The spread of the data is from 8 to 100 with a central tendency (mean) of 66. There is no visible shape but we can say that it is slightly left skewed since the median falls to the right of the mean.

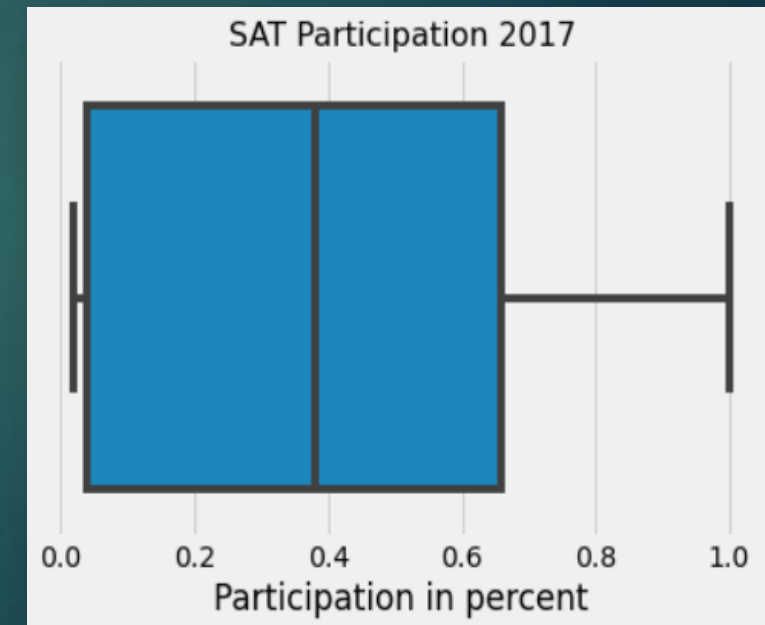
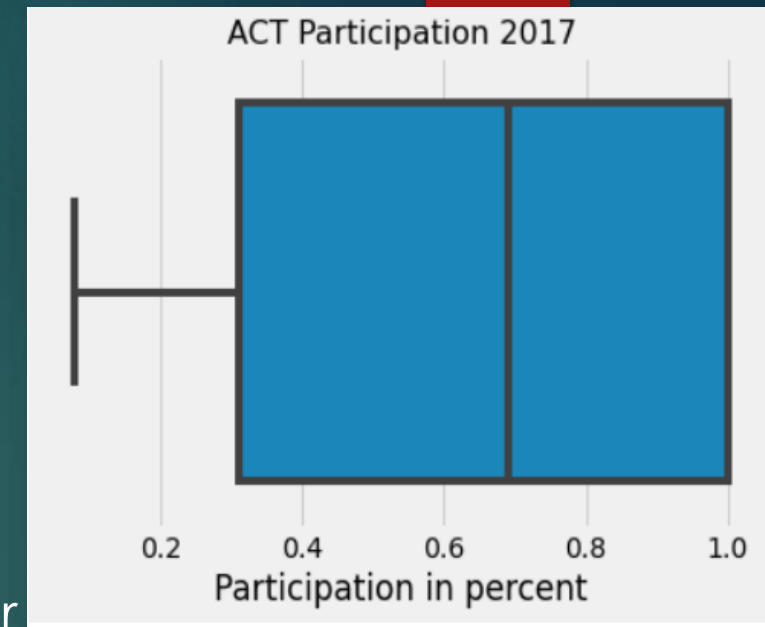
college graduation rates 2021

▶ SAT college graduation rates 2021

- ▶ **Delaware** 65.4% of bachelor's degree recipients graduate from public institutions.
- ▶ **District of Columbia** 36.3% graduate with bachelor's degrees each year.
- ▶ **Connecticut** 53.4% graduate with bachelor's degrees each year
- ▶ **Michigan** 52.8% graduate with bachelor's degrees each year.

▶ ACT college graduation rates 2021

- ▶ **Wisconsin** 59.6% graduate with bachelor's degrees each year.
- ▶ **Alabama** 53.6% of students earn bachelor's degrees each year
- ▶ **Colorado** 53.4% graduate with bachelor's degrees each year
- ▶ **Louisiana** 57.6% graduate with bachelor's degrees each year



CONCLUSION

NEXT STEP: MORE INVESTIGATION



- ▶ By studying the data for the year 2017, it became clear that we have states that require ACT for state testing and have very high if not 100% participation rates. These States are important for the College Board to know about (Alabama, Arkansas, Colorado, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Montana, Nevada, North Carolina, Oklahoma, South Carolina, Tennessee, Utah, Wisconsin, Wyoming)
- ▶ And To be fair, We must compare the states in which both exams are located, because the participation rates between SAT and ACT are negatively correlated, meaning that if one state tends to have high SAT participation, then it probably will have low ACT participation and vice versa.
- ▶ -After studying the data of the two exams and studying the distribution of each of them to the states, I see that there is no need for SAT exam, for many reasons:
- ▶ -Through our study of the distribution of marks, as it became clear that the student's marks in the ACT exam were better than SAT exam
- ▶ -Also, through our study of external research, it was found that the percentage of graduates in 2021 in states that accept ACT is better than the percentage of students in states that accept SAT.
- ▶ -And away from the distribution the main difference between the SAT and the ACT is that the ACT includes a science section and the SAT does not. In my opinion, scientific subjects are the most important subjects that a student can attend before entering college

THANK YOU!



Feel free for any question