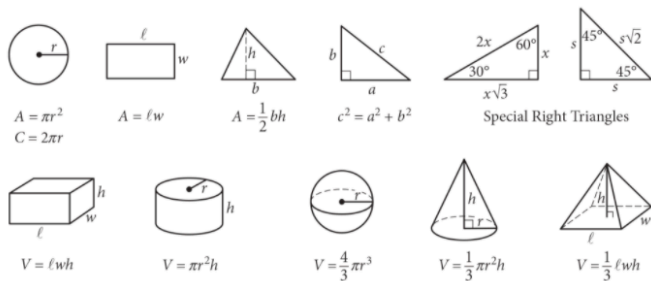


If $f(x) - f(x+1) = 2x - 5$ and $f(6) = 12$, what is the value of $f(5)$?

- A) 5
- B) 7
- C) 17
- D) 19

SAT/ACT Project

By: Edward "Dward" Mendoza



The number of degrees of arc in a circle is 360.

The number of radians of arc in a circle is 2π .

The sum of the measures in degrees of the angles of a triangle is 180.

Background

- College preparatory exams such as the SAT's and ACT's have played a huge determining factor for the success of California high school students throughout their college career; where high school faculty and parents alike have poured millions of dollars collectively in ensuring young adults achieve the best score possible.
- Although there have been massive backlash against college preparatory testing, (i.e. if they truly measure intelligence, the unfair advantage that students with a higher socio-economic background can spend hundreds, even thousands of dollars for SAT tutors and prep classes, there are still beneficial reasons why California should invest in, such as:



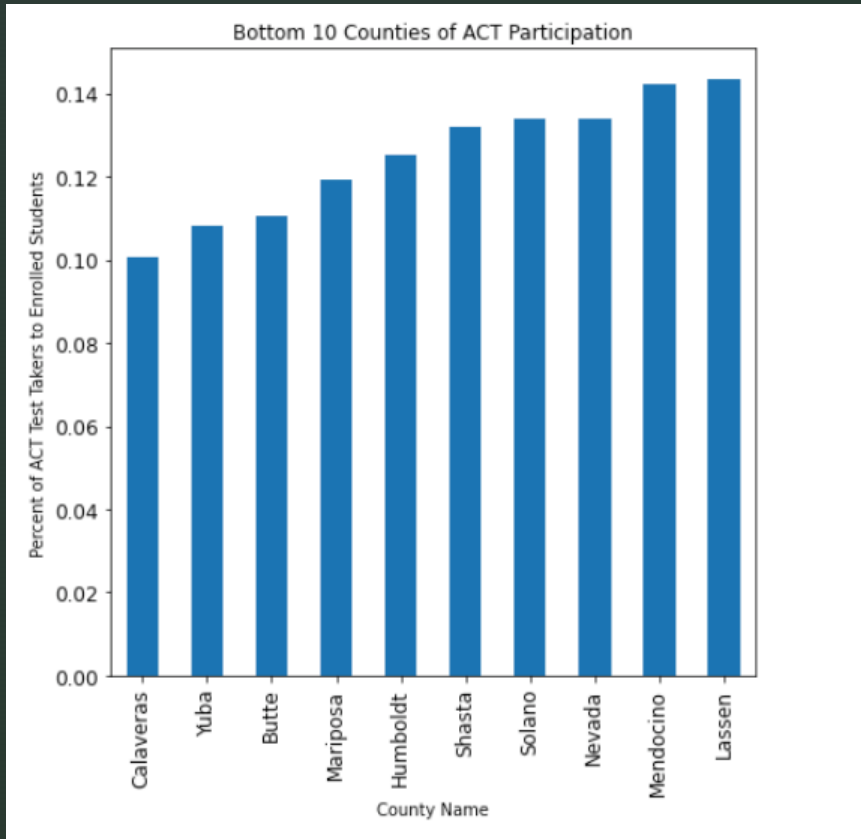
- 1. Being exempt from certain remedial courses in college/university
- 2. A High SAT/ACT score can offset a lower GPA
- 3. SAT/ACT scores can help enhance a sparse resume
- 4. Increase access to scholarship opportunities

- *Source: <https://www.collegedrive.com/5-reasons-taking-the-sat-and-act-matters-for-more-than-college-admission/>

Problem Statement

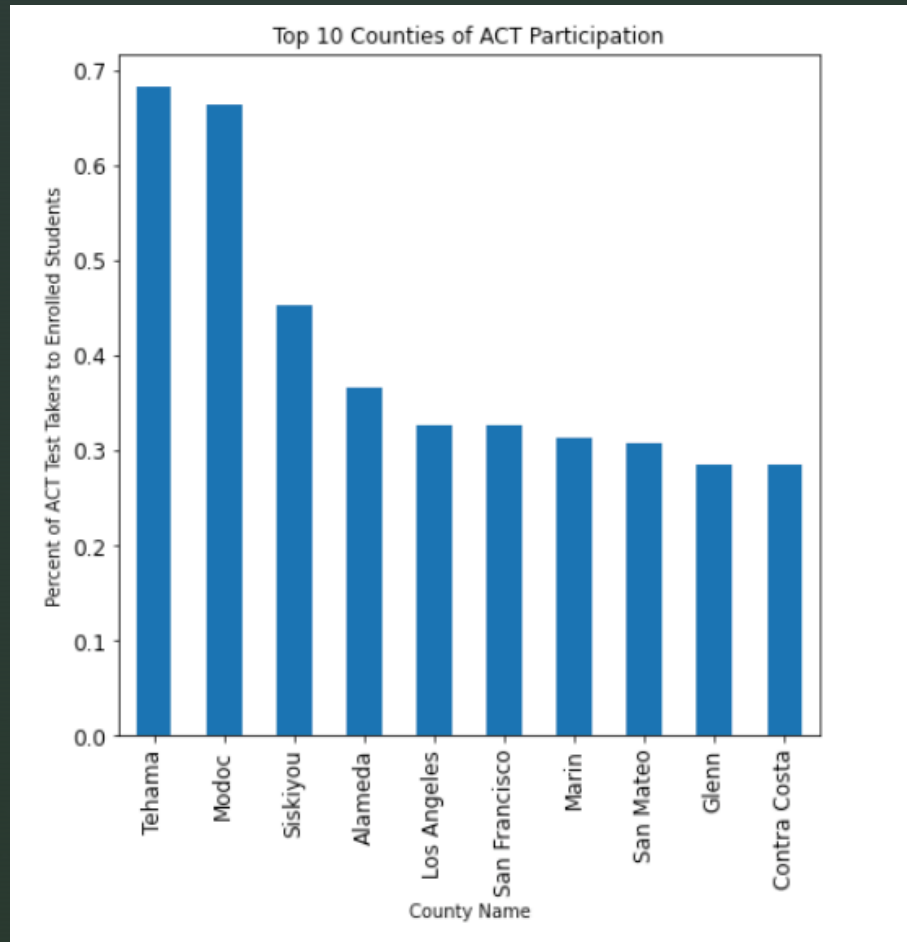
- I, as an aspiring data scientist, have been hired by the great State of California to identify its counties who have high participation rates for these tests, low participation rates for these tests, find plausible explanations why this is the case, as well as figure out solutions on how the state can allocate their budget/resources to provide students the programs necessary to ace this exam

Let's Take a Look at the ACT...



- Calaveras, Yuba and Butte unfortunately take the cake in terms of the lowest participation rates of this exam, whereas

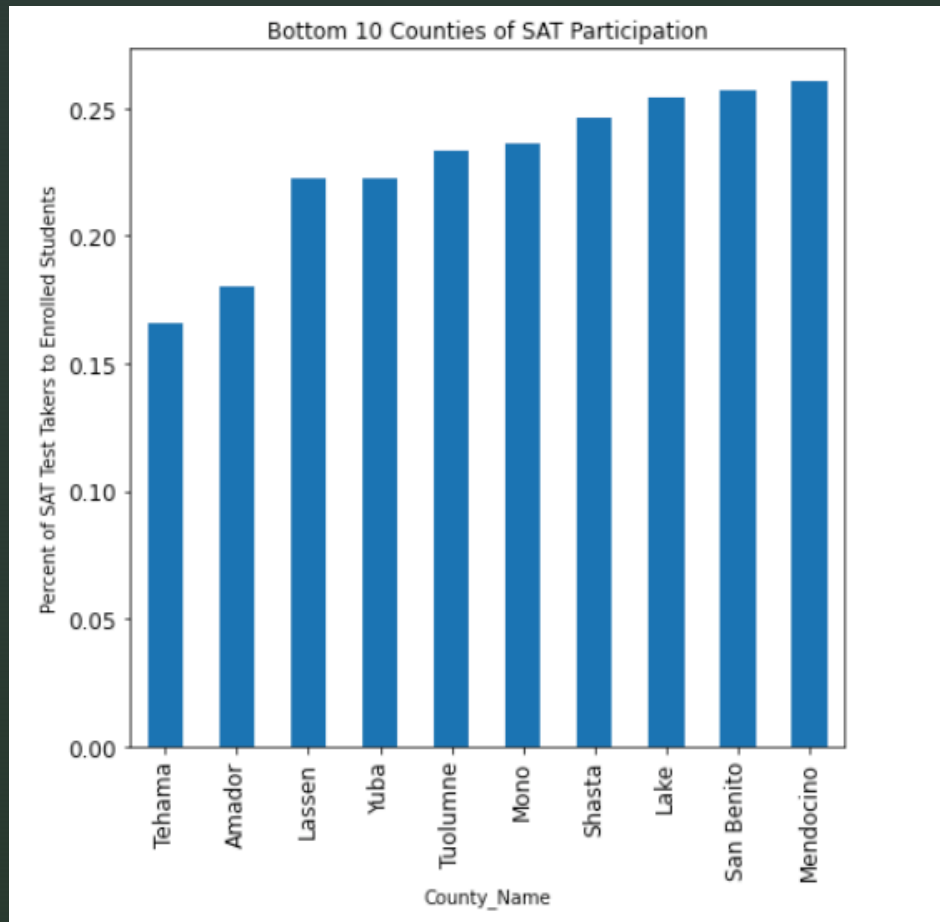
Let's Take a Look at the ACT...



- Surprisingly, through my analysis, counties such as Tehama, Modoc, and Siskiyou have high ACT participation rates. This could be explained that a higher percentage of students might have taken the exam with an already lower number of students enrolled in these districts

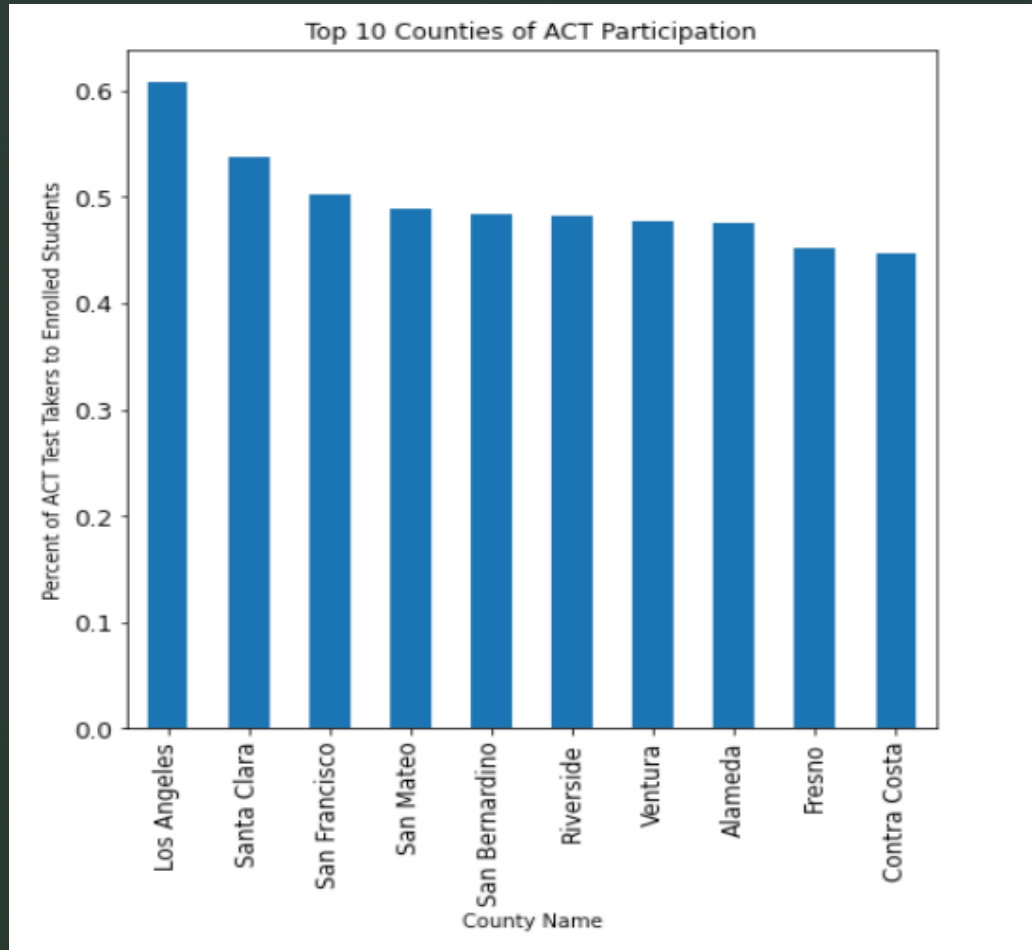
However, not surprisingly, counties like Alameda, Los Angeles, and San Francisco County have a large number of students taking this exam

Onto the SAT's



- It appears smaller, more rural counties have lower participation rates of students taking the SAT's...

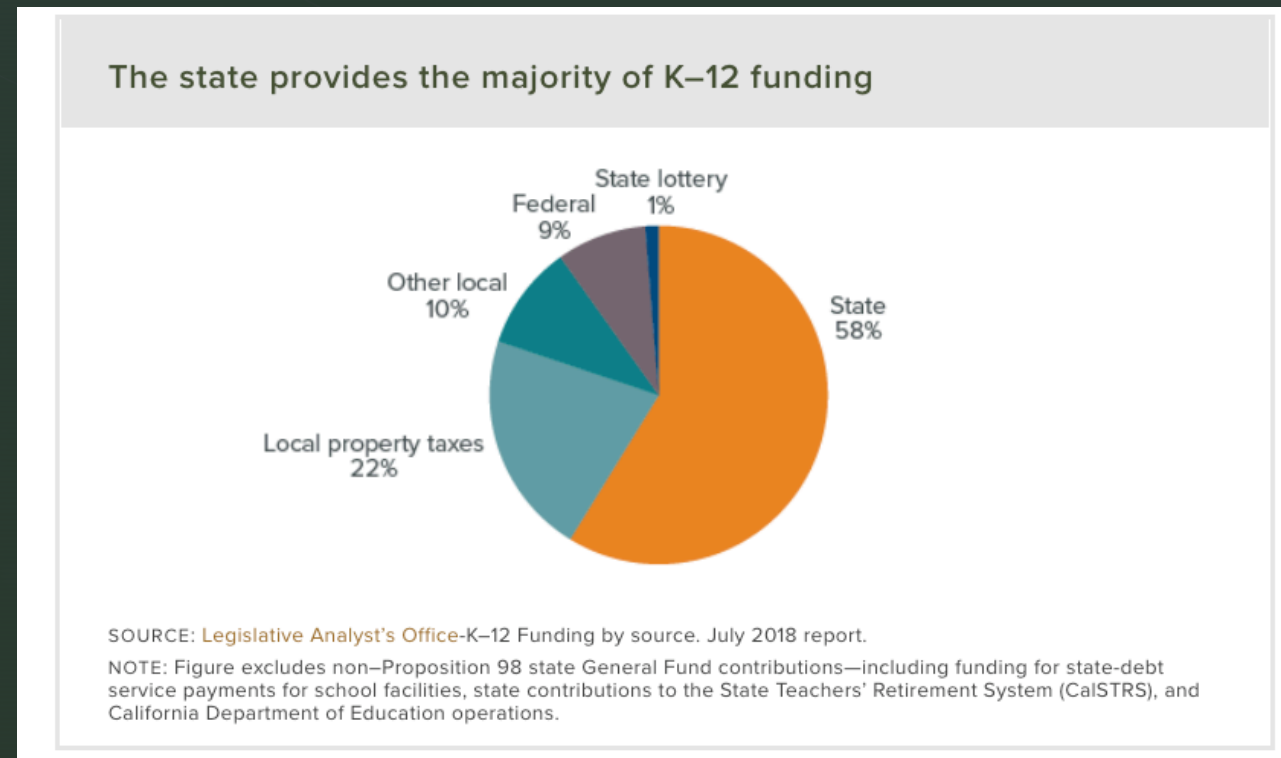
Onto the SAT's



- Whereas more densely populated counties appear to have more students taking the SAT's

My Recommendations

As per an article from the Public Policy Institute of California, California K-12 public schools received a total of \$97.2 billion in funding, where the sources come from the following:



My Recommendation

- I believe what would benefit California high school students into getting the knowledge and acumen necessary to acing the SAT/ACT is by creating a new elective course (Like a foreign language or art class) dedicated to preparing students of taking these exams.
- This could be achieved by either increasing tax revenue from the state lottery, requesting a larger chunk of the pie from the federal government, or by increasing local property taxes by a marginal amount to help fund this program