

COLLEGE ENTRANCE EXAMS IN CALIFORNIA

An analysis of ACT and SAT test data, per county, for the 2019 graduating year

PROBLEM STATEMENT

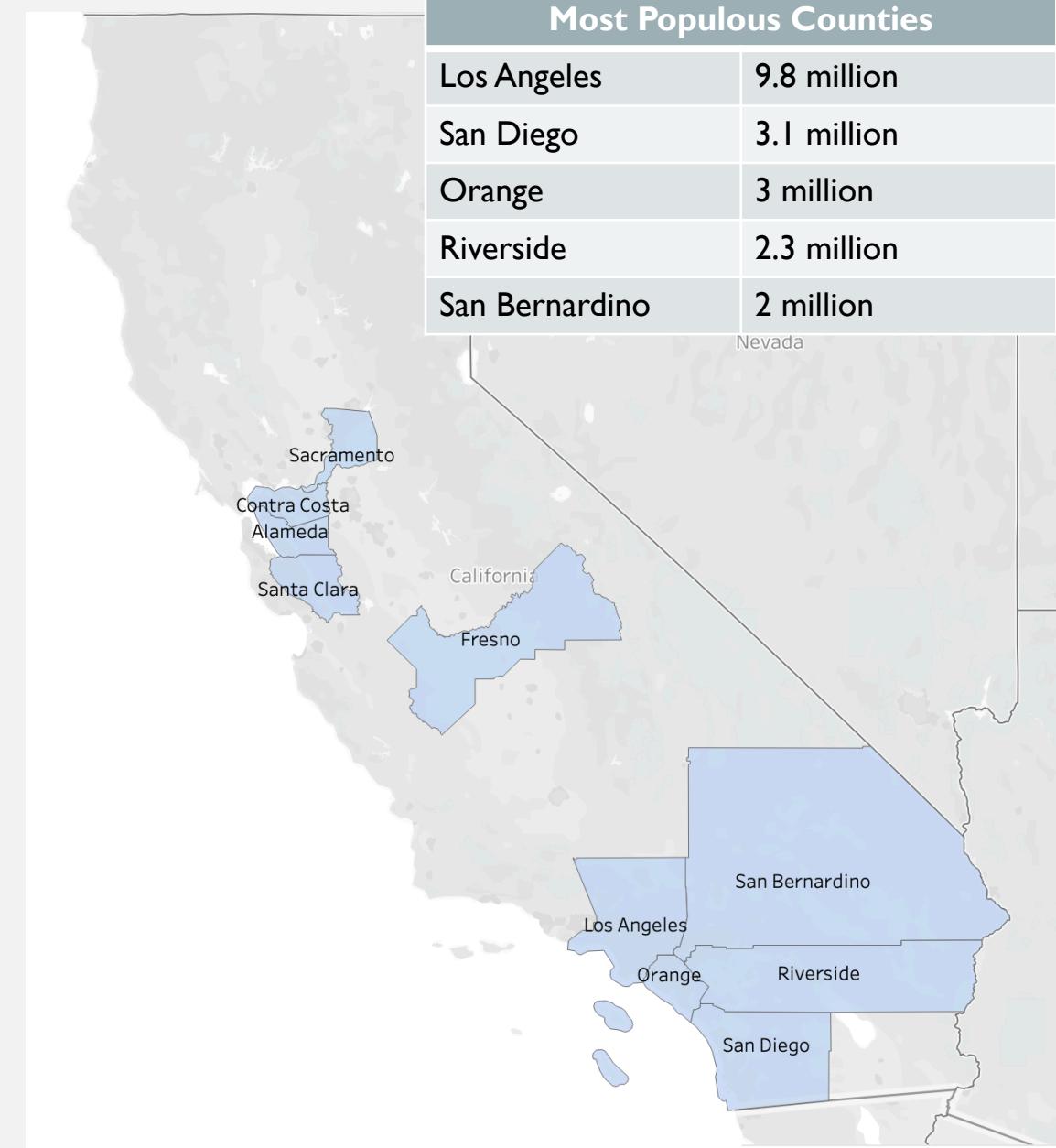
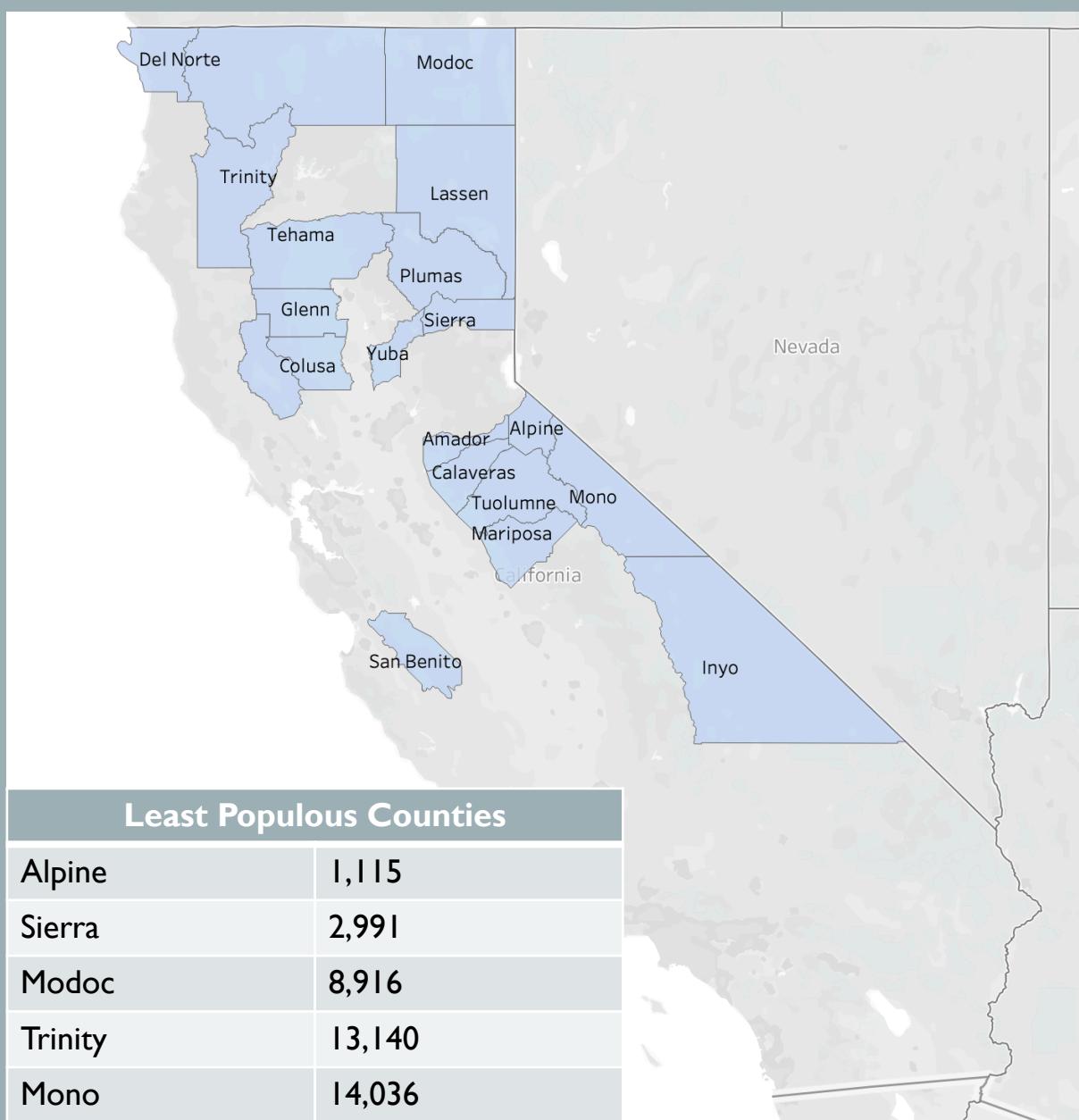
- The primary goal of this project is to help the State of California identify which counties need additional assistance with SAT/ACT test prep materials in order to prepare the highest percent of students possible for college entrance exams
 - A secondary analysis seeks to determine which of the two tests is more popular, and how likely students are to achieve a national benchmark on either the ACT or the SAT
 - Lastly, this study evaluates the subjects themselves to see which counties should focus their efforts more on Math or Reading/Writing



DATA SOURCES

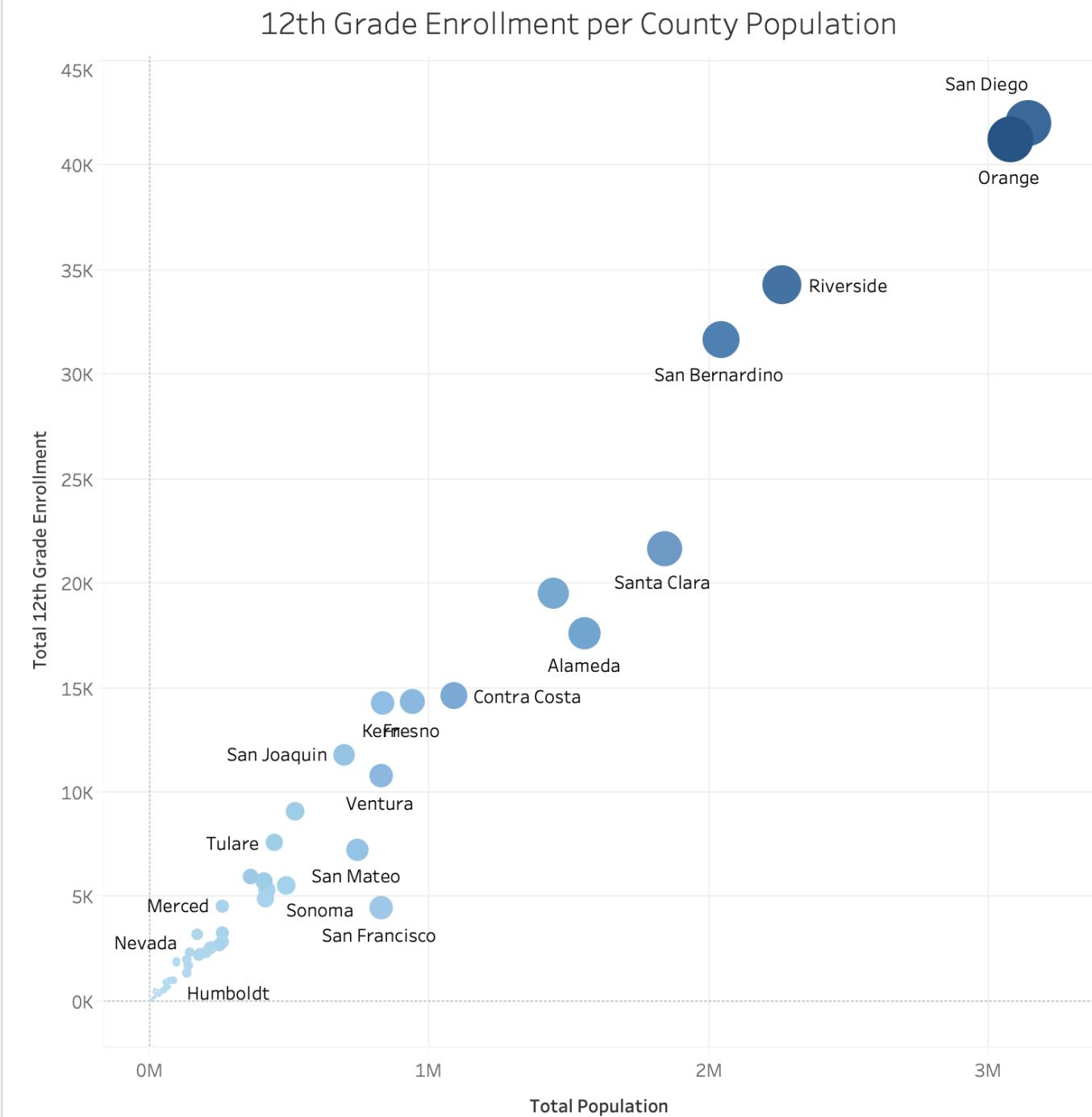
- SAT Test Results 2018 – 2019
 - California Department of Education ([link](#))
- ACT Test Results 2018 – 2019
 - California Department of Education ([link](#))
- Healthy Communities Data and Indicators Project
 - California Department of Public Health ([link](#))

PART I: UNDERSTANDING THE DEMOGRAPHICS



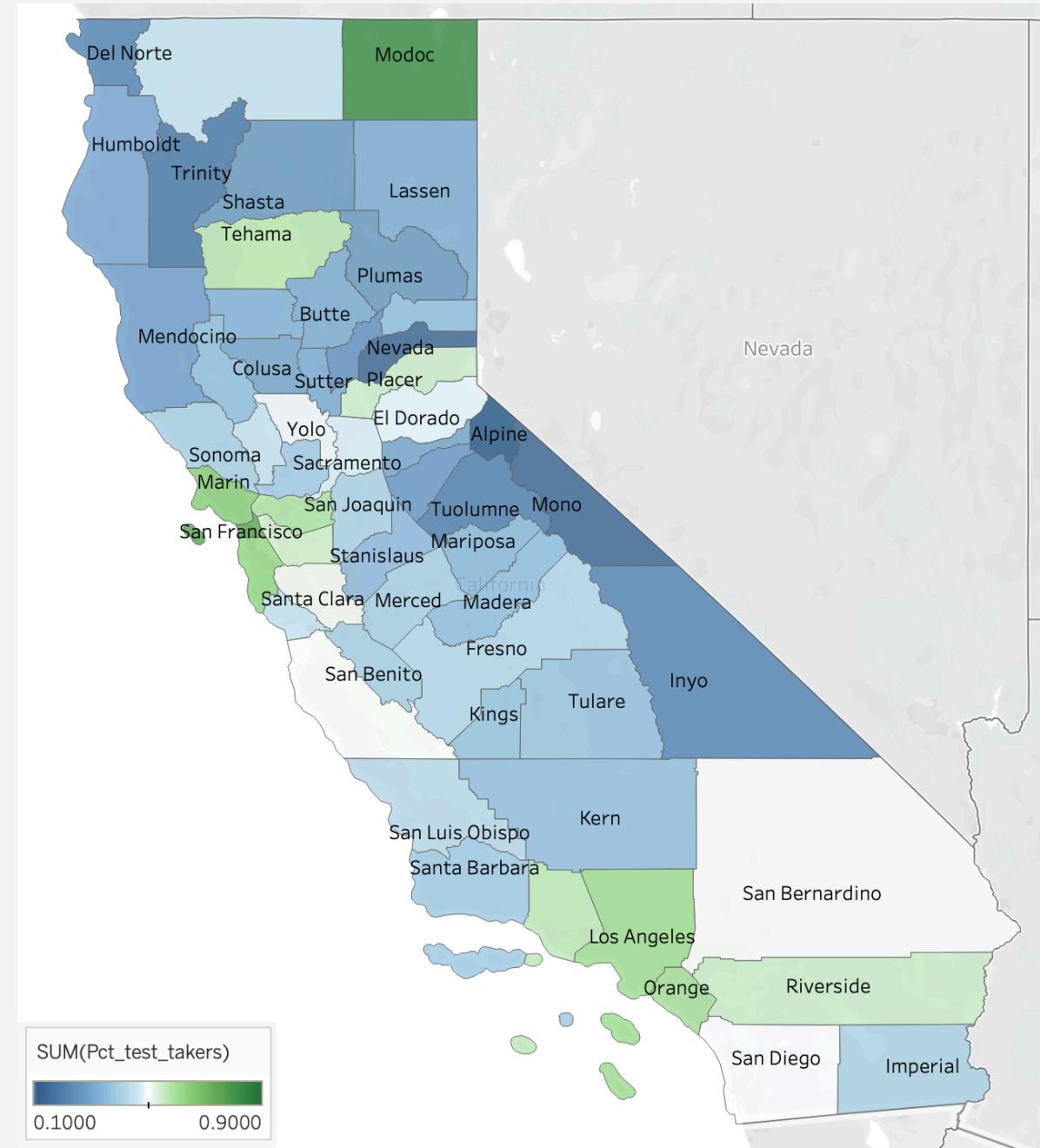
12TH GRADE ENROLLMENT

- As can be expected, there is a positive correlation between each county's population and it's total enrollment of 12th grade students
- At over 114,000 students enrolled in 12th grade in LA County, it was removed as an outlier



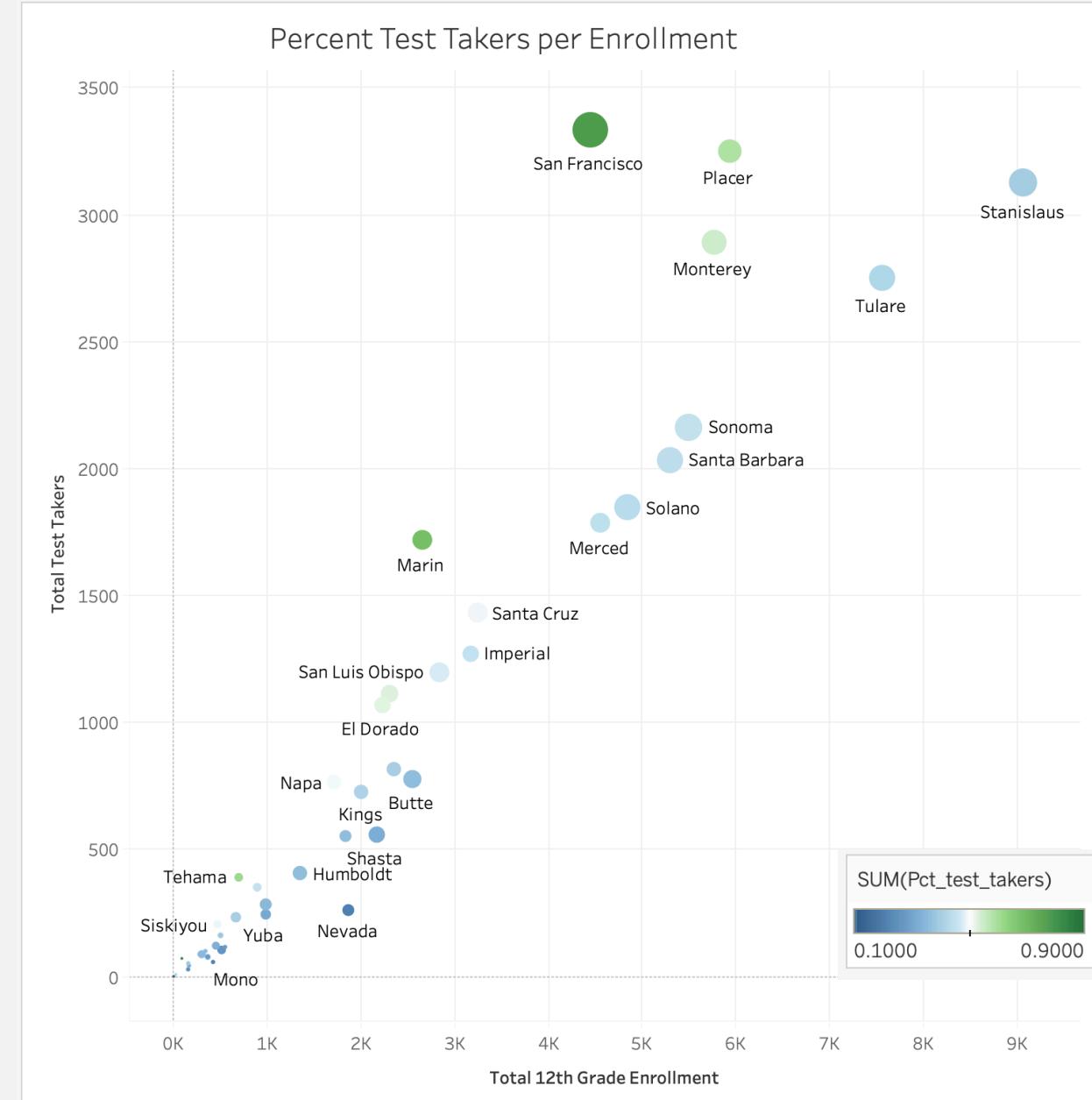
PERCENT STUDENTS TOOK EITHER TEST

- The counties with the highest percent participation in college entrance exams are suburbs of greater Los Angeles and San Francisco
- Despite the heavy emphasis on urban population centers, there are a few surprise standouts in the Northern Valley and Superior regions



TEST TAKING IN RURAL AREAS

- This is the region that could use the most improvement. Some counties such as Alpine have no test takers at all
- Just because a county has a lower number of students enrolled, doesn't mean it can't encourage a greater percentage of them to take college entrance exams

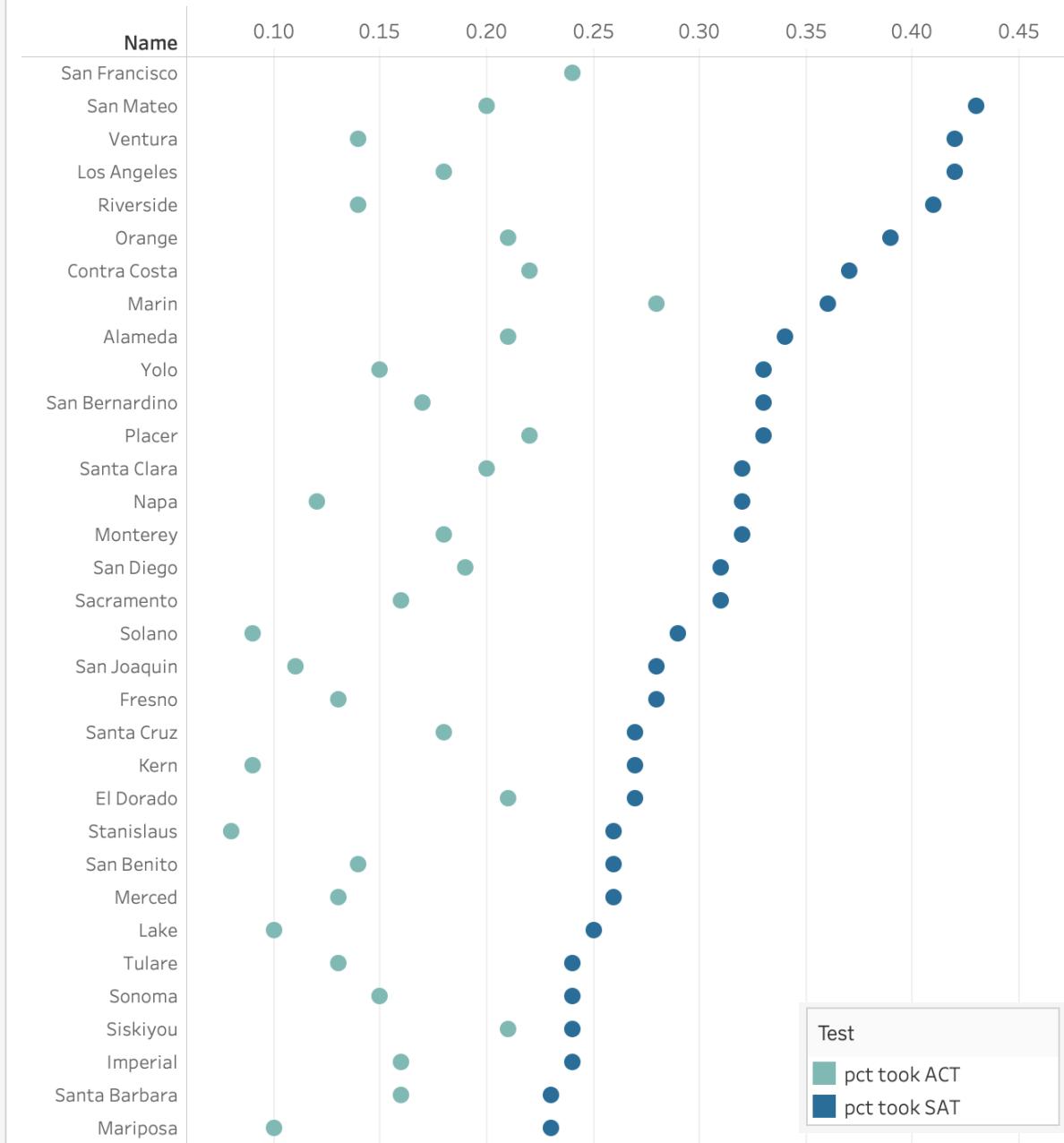


PART 2: WHICH TEST IS BETTER?

THE SAT IS MORE WIDELY AVAILABLE

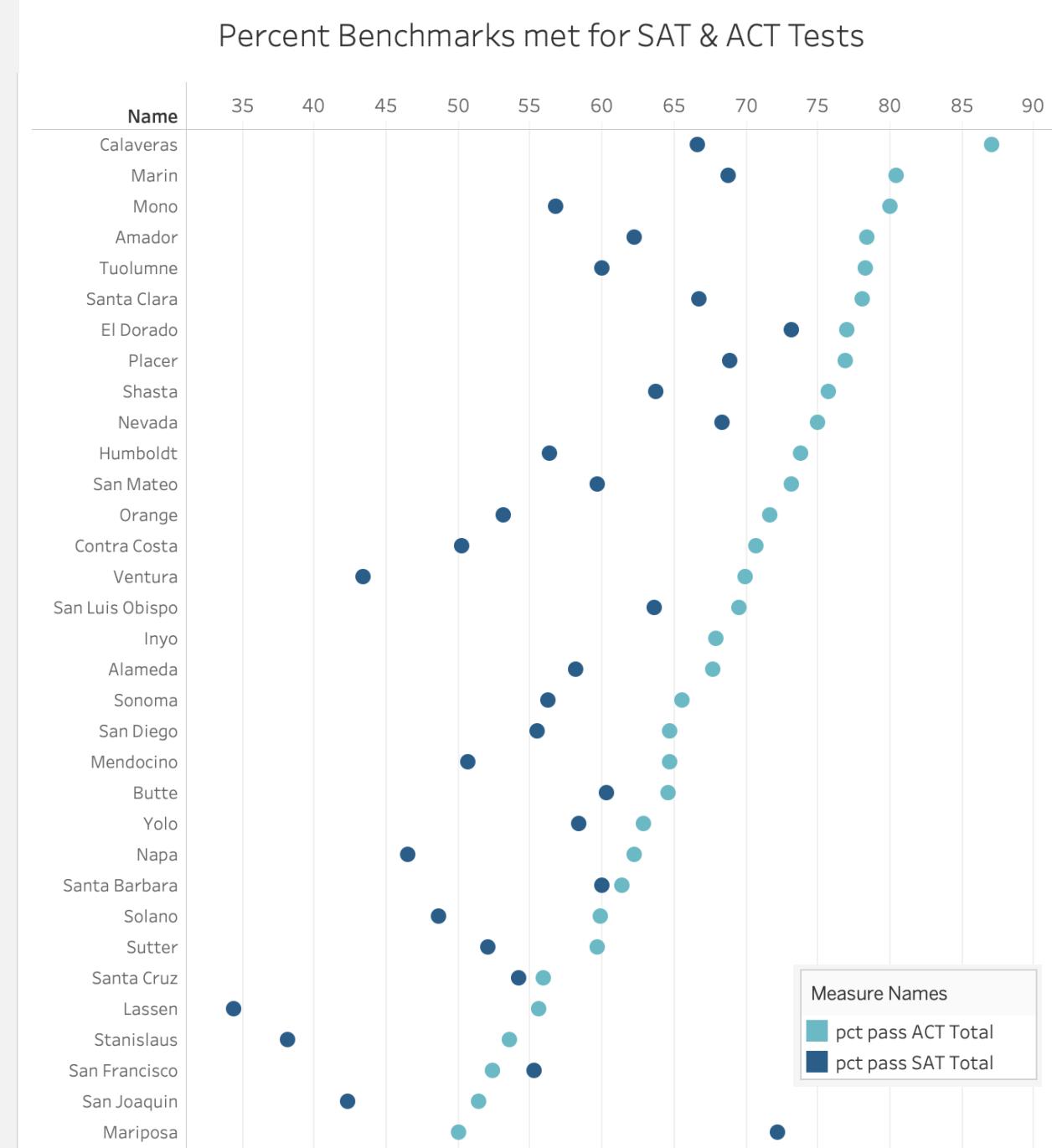
- Nearly every county had a higher percent of students take the SAT versus the ACT
- The range of participation in the SAT was around 20-40% of 12th grade enrollment
- Only three counties had more students take the ACT: Modoc, Tehama, and Trinity

SAT & ACT



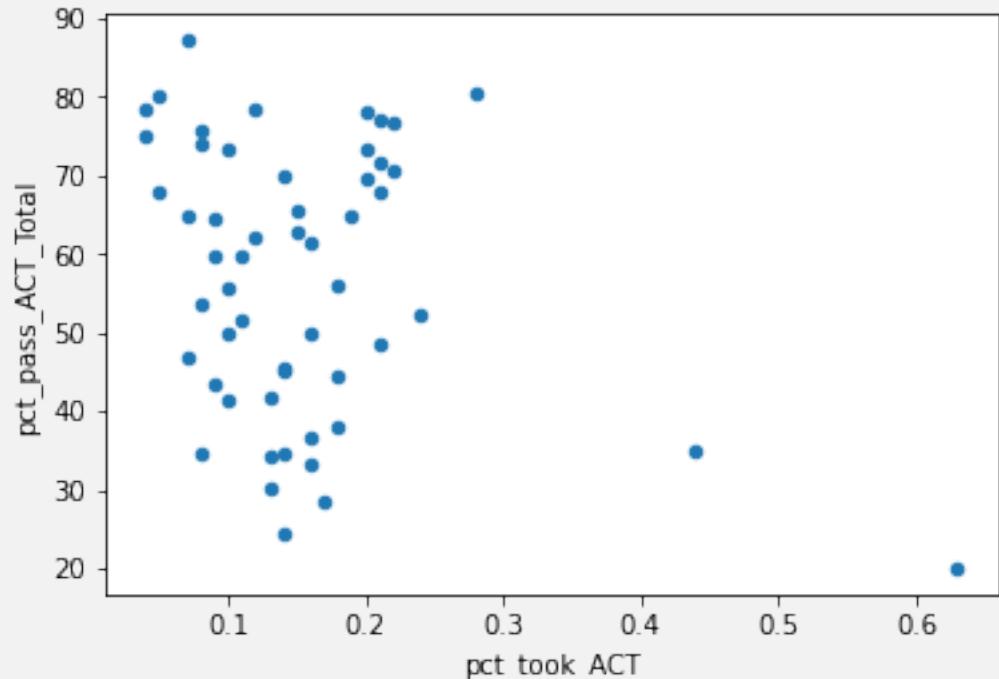
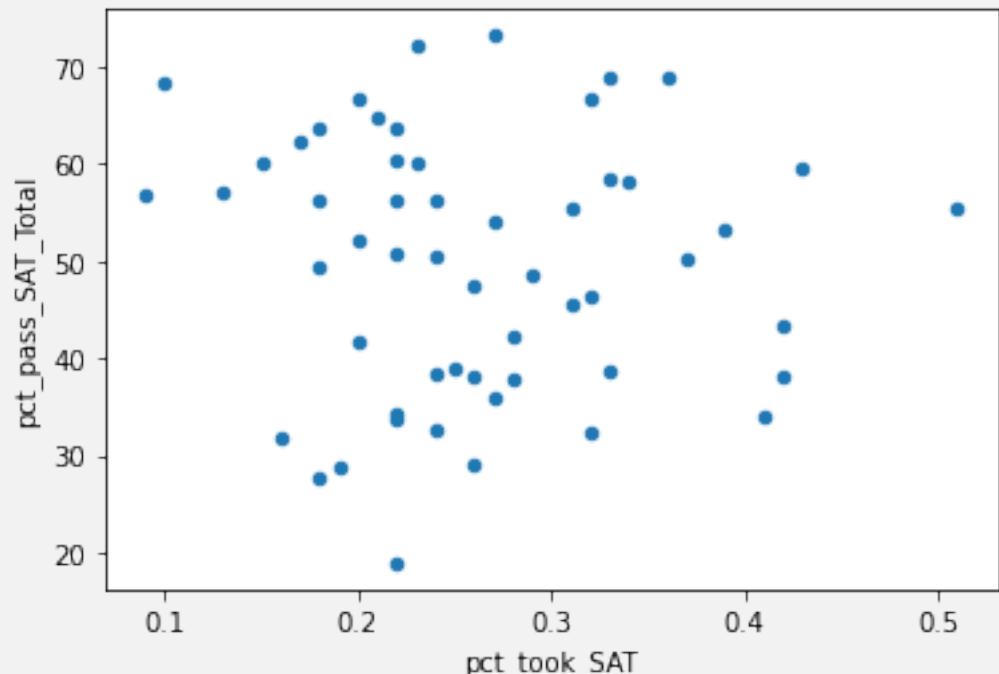
BUT STUDENTS SCORED HIGHER ON THE ACT?

- Surprisingly, of the students that elected to take the ACT, they were more likely to pass a national benchmark
- Could this be a result of lower competition on scaled scores?
- The ACT is scaled on a score of 1-36, with 21 considered the national average
- The SAT is scaled on a score of 200-800 per section, for a total score of 400-1600
 - The national benchmarks for this test are 480 for Reading/Writing and 530 for Math



NO CORRELATION BETWEEN PARTICIPATION & SCORES

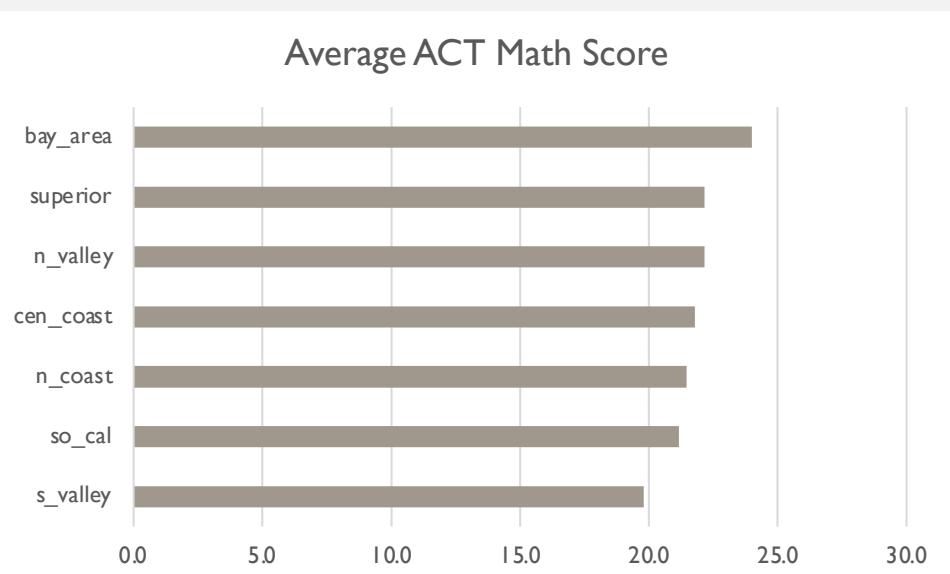
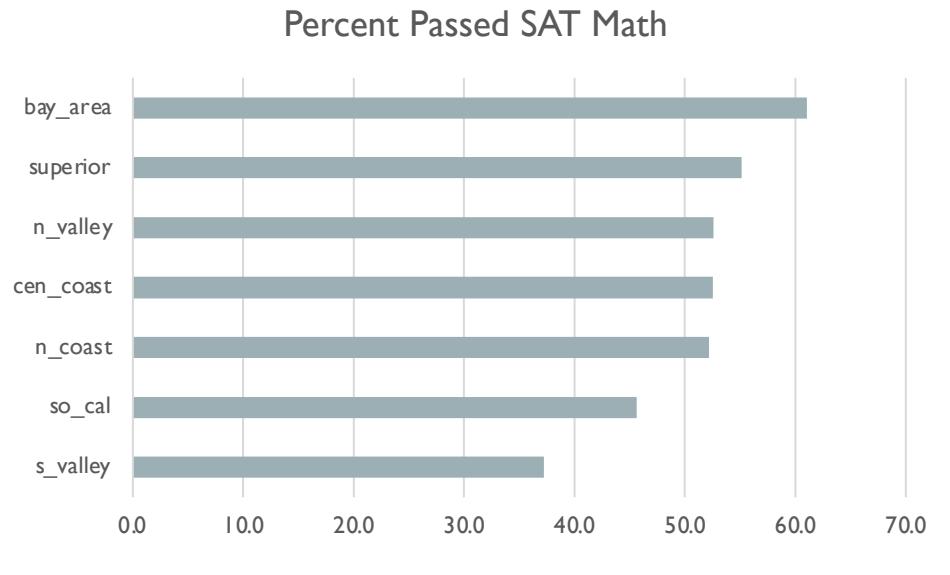
- As mentioned in the previous slide, the SAT was more commonly taken across all counties, but scores were all over the place
- The ACT had much lower participation (around 10-20% for most counties), but was likelier to see an increase in the percentage of students achieving a passing benchmark



PART 3: ON THE SUBJECTS

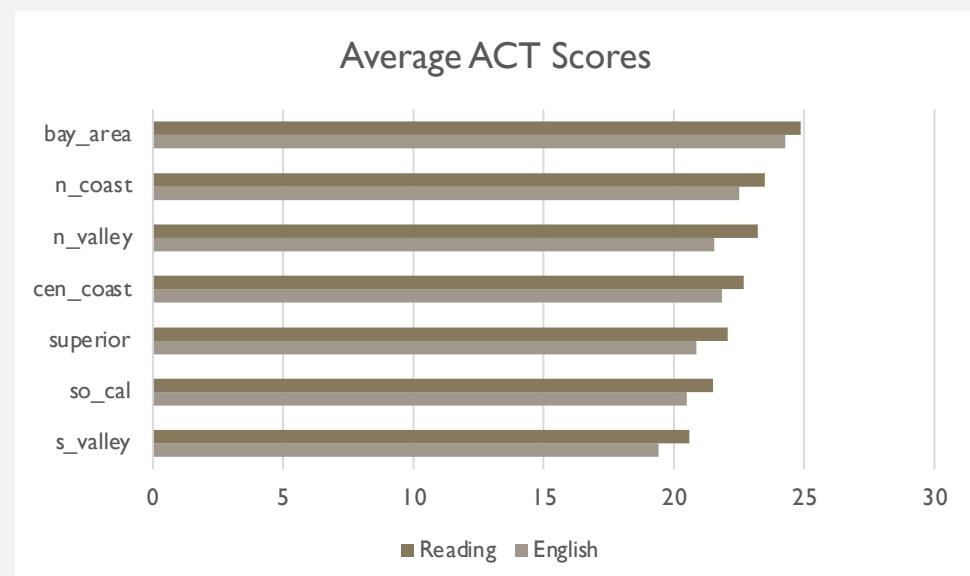
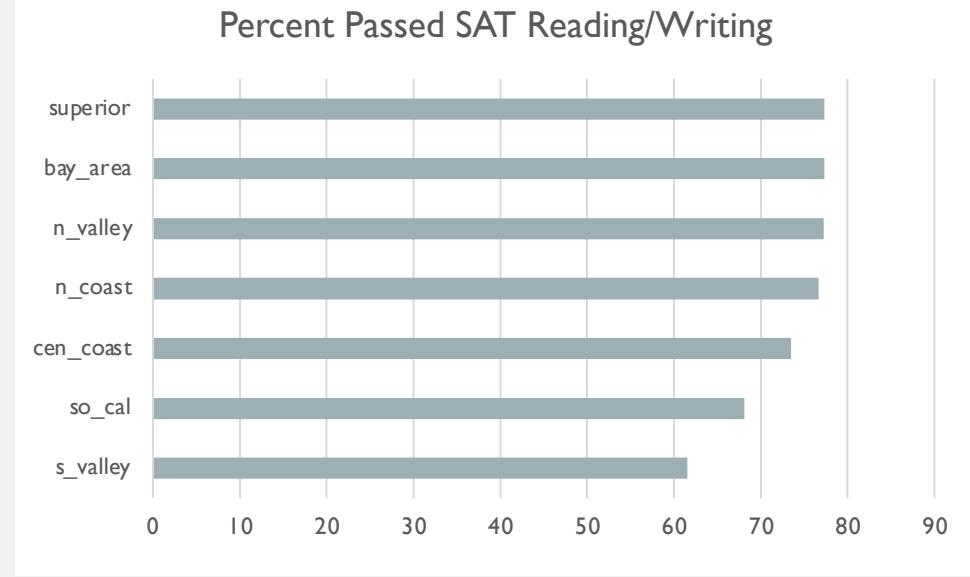
MATH SECTION

- The Bay Area region has the strongest scores in Math on both tests, whereas the Southern Valley has the worst.
- With the amount of federal and state resources already invested in southern California's largest counties, it seems a bit underwhelming that this region scores second to last on both tests
 - It's worth noting that less than 50% of students in Southern California pass the SAT Math test



VERBAL SECTION

- The same regional trend appears in the Verbal sections too, with the Bay Area scoring highest or near highest across both tests, and the Southern Valley scoring lowest
- For what it's worth, scores on the SAT Verbal section were on average 20% higher per region



SAT BEST & WORST

- It's interesting to see Riverside ranked the #9 worst for SAT Math. This county has a total population of 2.2 million people and a 12th grade enrollment of over 34,000 students.
- Los Angeles is also near the bottom for SAT Reading/Writing scores. That could be something to work on.

Rank	County	% Passed SAT Math
# 58	Colusa	20.27
# 57	Glenn	30.00
# 56	Madera	30.77
# 55	Merced	31.97
# 54	Monterey	34.99
# 53	Inyo	35.23
# 52	Tulare	35.54
# 51	Lassen	36.07
# 50	Riverside	36.40

Rank	County	% Passed SAT Verbal
# 58	Colusa	52.70
# 57	Inyo	53.41
# 56	Monterey	59.46
# 55	Riverside	60.92
# 54	Merced	61.51
# 53	Kern	61.53
# 52	Los Angeles	61.80

CONCLUSIONS & RECOMMENDATIONS

- Focus on increasing participation in college entrance exams in rural areas, particularly in the Superior and Southern Valley regions
- Lobby for more testing availability for the ACT, as students in less populous counties had a better chance of success on that test
- While the number of students taking college entrance exams in the Southern California region is high, there are specific trouble areas:
 - Math in Riverside County
 - Reading/Writing in Los Angeles