# College Tests Outcomes across geographically areas in California

### **Problem Statement**

Quantify the overall college test performance and participation for 12th graders in

rural, suburban, and urban areas in California



### **Questions**

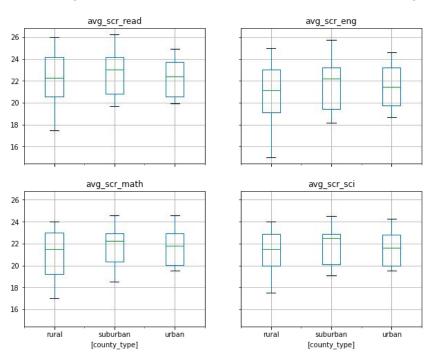
- Which counties have SAT or ACT scores that are below the national average?
- Is there a difference between English vs Math?
- What is the student participation rate in ACT and SAT tests?

### **Data set Information**

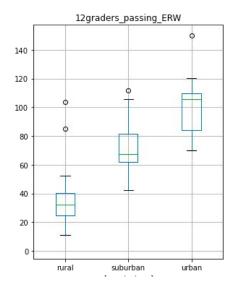
- ACT Data for California 12th graders for 2019
- SAT Data for California 12th graders for 2019
- 57 counties included in the analysis
- 1646 schools included in the analysis

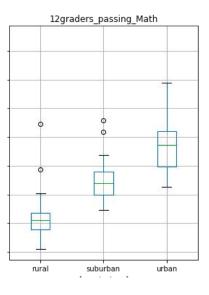
# **Results for test categories**

For Average ACT scores, there is not much difference between categories

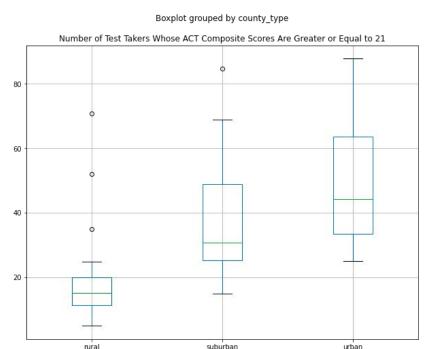


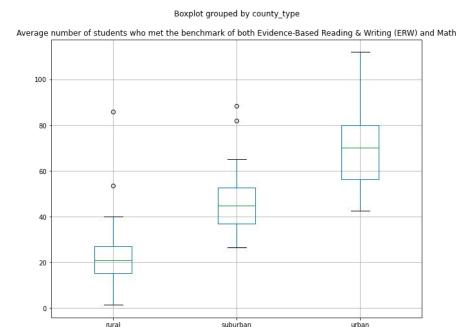
Average Number of students meeting or exceeding the benchmark established by the College Board. Higher results in ERW with Urban counties scoring higher





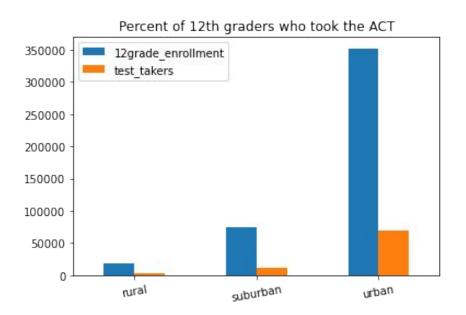
# Average number of students with a passing score

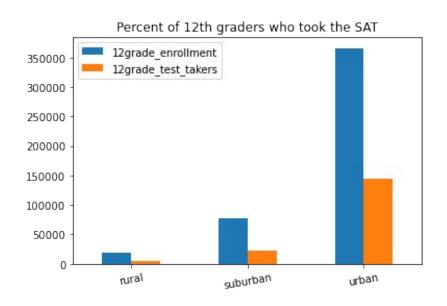




The number of students in rural counties passing the ACT/SAT is very low!

# Students taking the ACT and SAT in rural, suburban, and urban counties





Less than 20% take the ACT test

Less than 40% take the SAT test

### **Conclusions**

- The average number of students in rural counties having a good score in the SAT or ACT is considerably lower than the average number of students having a good score in urban and suburban counties.
- There is no much difference in the average of scores across the test categories in the ACT. For the SAT, the average number of students having a passing score is greater for English/Reading/Writing than Math.
- Student participation rate in ACT and SAT testing is the same across rural, suburban, and urban areas across California

## **Next Steps**

- The low test performance in rural counties is a red flag. Need to evaluate this
  further by analyzing the data of other school performance metrics for students
  (ideally across all grades) in rural counties and compare this with the data from
  suburban and urban school metrics.
- Analyze what factors can be affecting testing performance in rural counties such as school funding, school programs, and teacher qualifications.
- Investigate and determine the needs of students in rural counties interested in taking the ACT or SAT.

#### References

- School Performance, California Department of Education https://www.cde.ca.gov/ds/sp
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   <a href="https://towardsdatascience.com/defining-a-data-science-problem-4cbf15a2a461">https://towardsdatascience.com/defining-a-data-science-problem-4cbf15a2a461</a>
- Counties geographically classification in California https://www.counties.org/sites/main/files/file-attachments/2020-june3-countycaucu sesinfographic-4-final.pdf