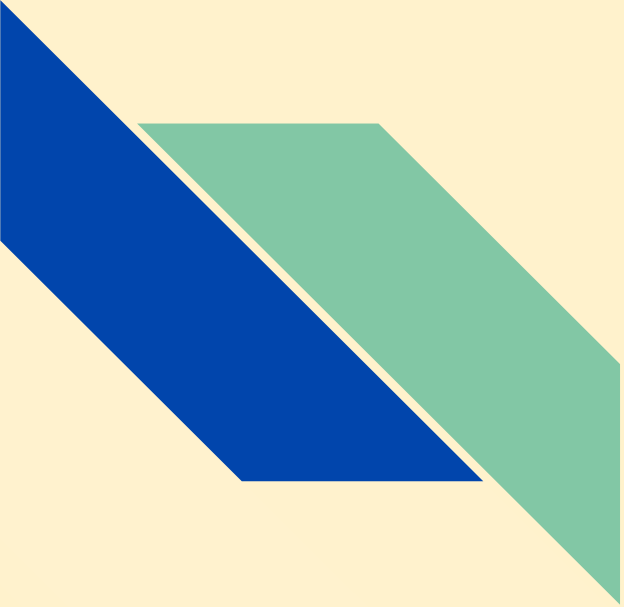





Context

- Data science professional for an education startup offering enrichment workshops
- Based in California, USA.
- Promote their classes to schools involved with both the SAT and ACT, since they could be bigger clients.
- Too many possible schools - Business Development team would like to know which ones, for fastest results.



Analysis of the performance of schools in California on the ACT and SAT


Eric Lim



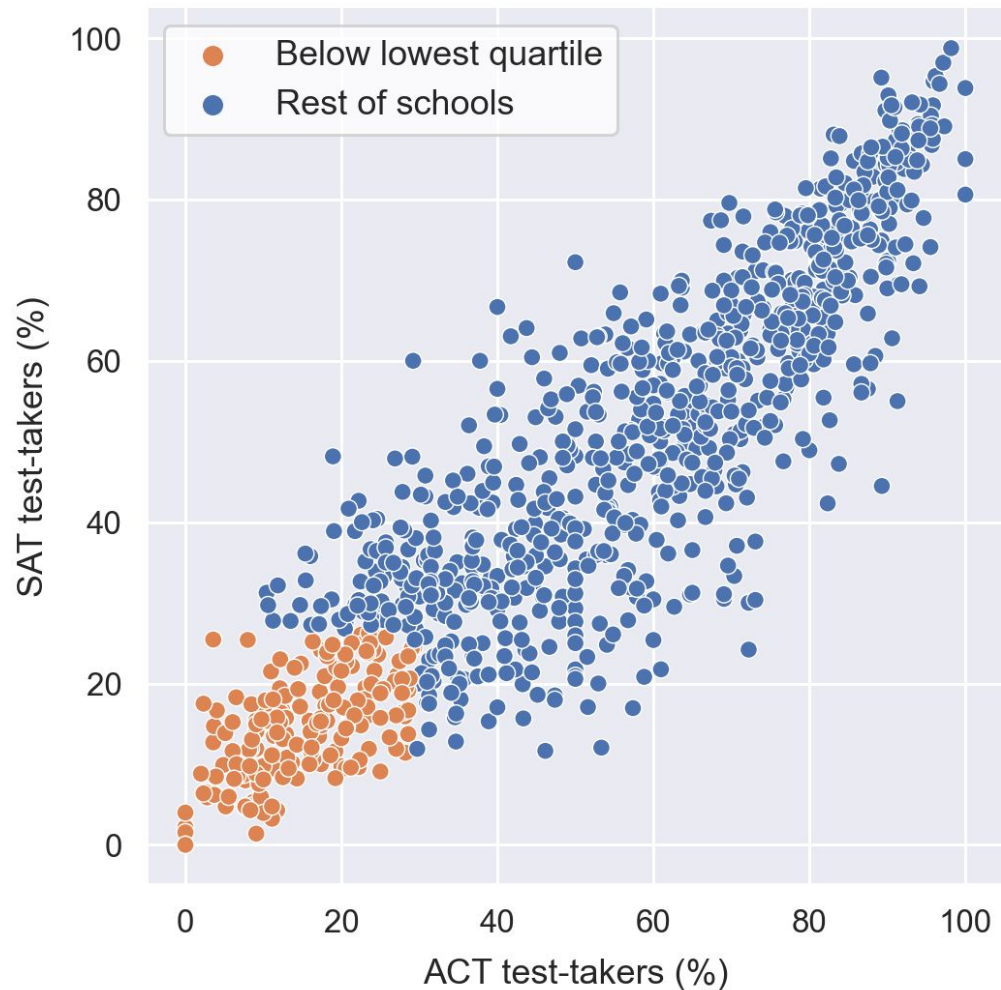
Out of schools in California administering both the ACT and the SAT,

This analysis aims to study which schools perform the worst on both these assessments, since these schools would have the greatest need for enrichment workshops.

Where do we start?

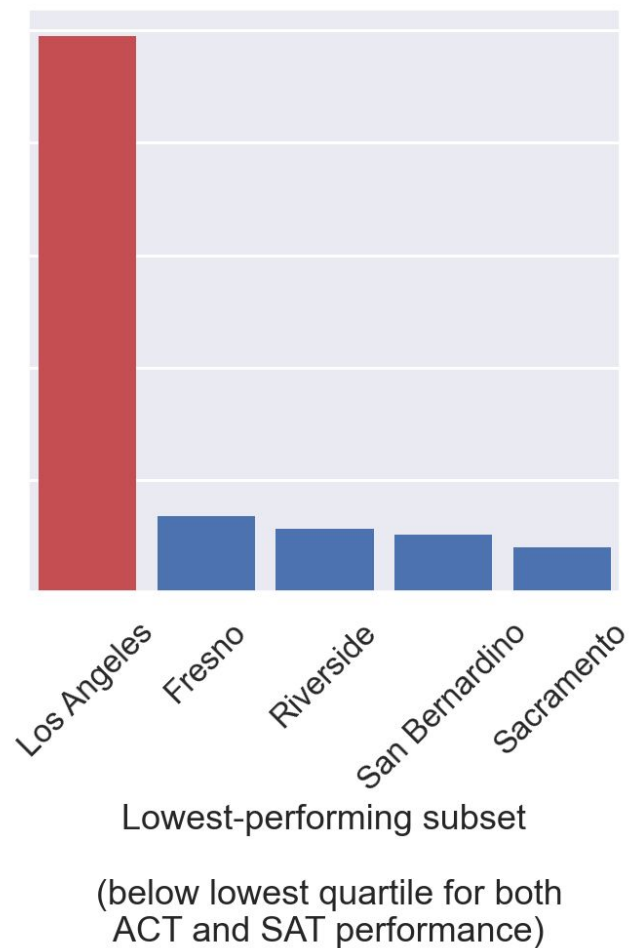
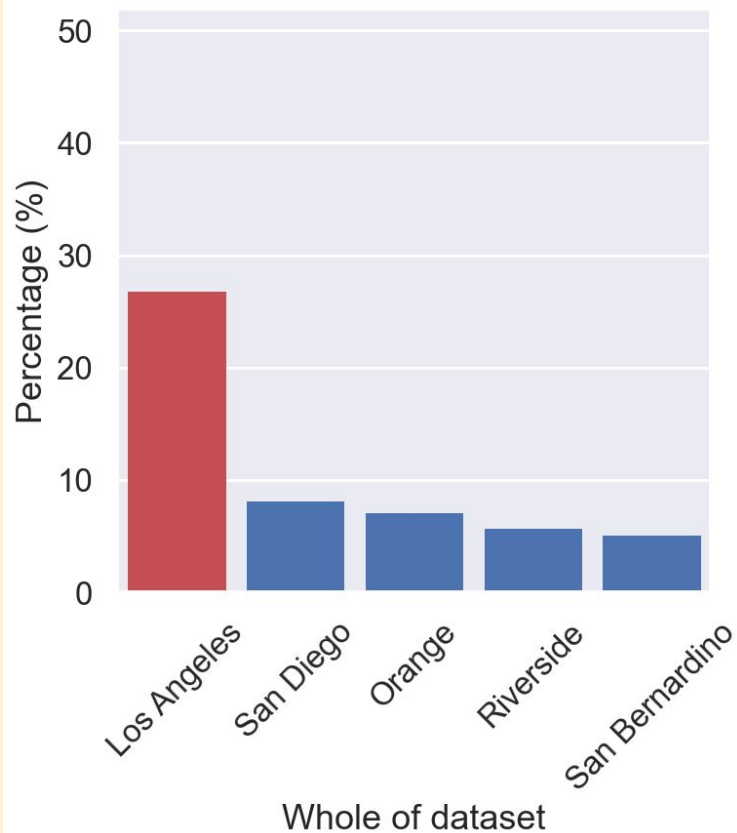
- 
- Data from the California Department of Education - filtered
 - **58 counties** in California, divided into school districts, and then schools
 - **ACT** - Percentage of Grade 12 ACT test takers in the school whose **ACT Composite Scores** were 21 or above
 - **SAT** - Percentage of Grade 12 SAT test takers in the school who **met the benchmark of both** the SAT Evidence-Based Reading & Writing (ERW) and Math tests by the College Board for Grade 12.

Proportion of Grade 12 test-takers per school who met benchmarks

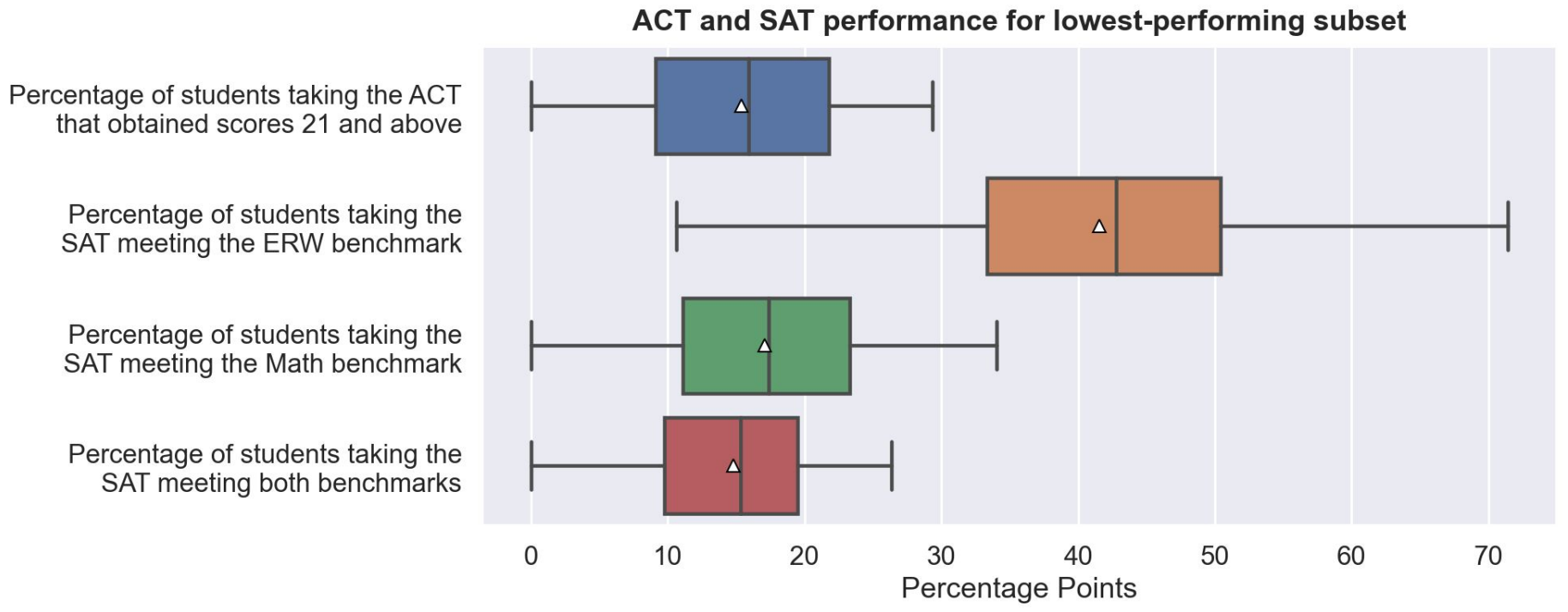


- Each school is a point
- High correlation ($r=0.9$)
- 49.4% from Los Angeles County in zone below lowest quartile
- However, a caveat!

Proportion of the top 5 counties represented in dataset

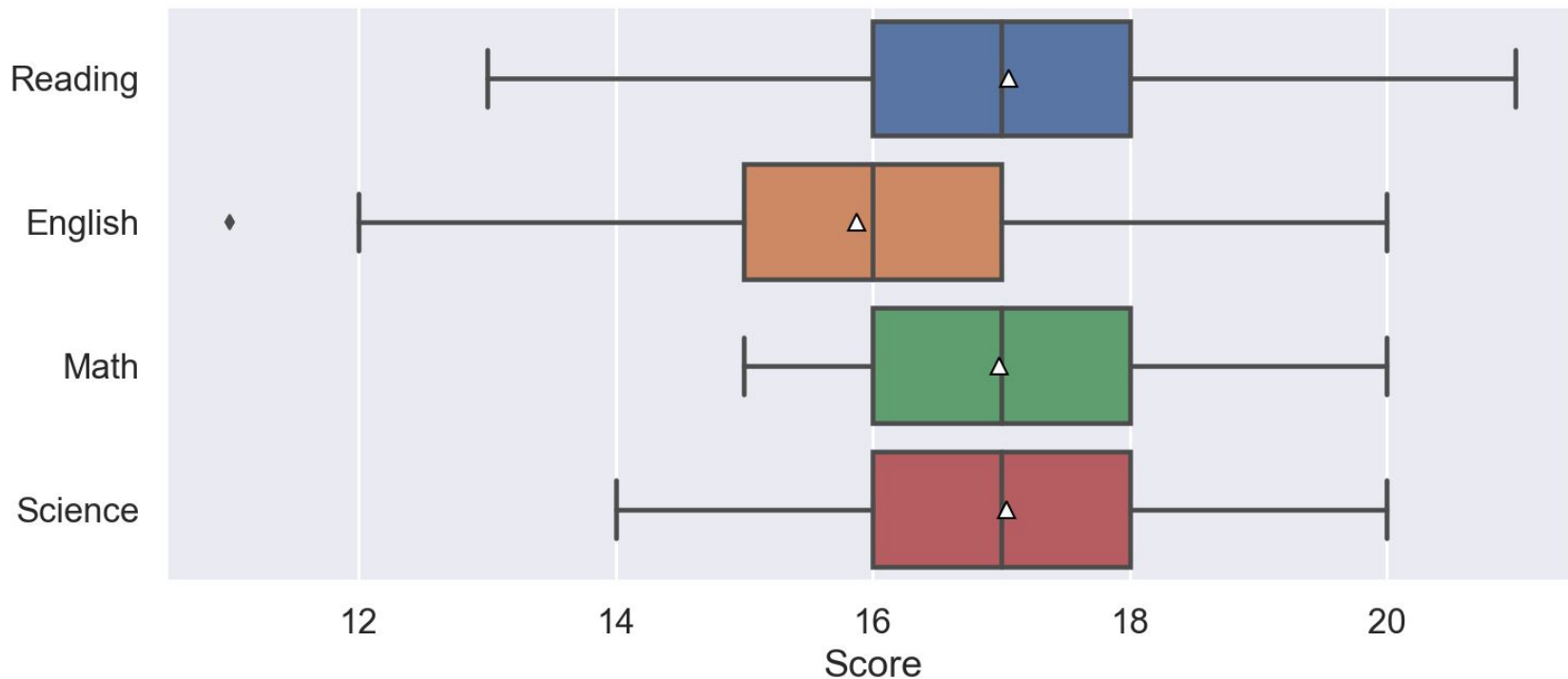


ACT and SAT - Percentages



ACT specifically - Scores

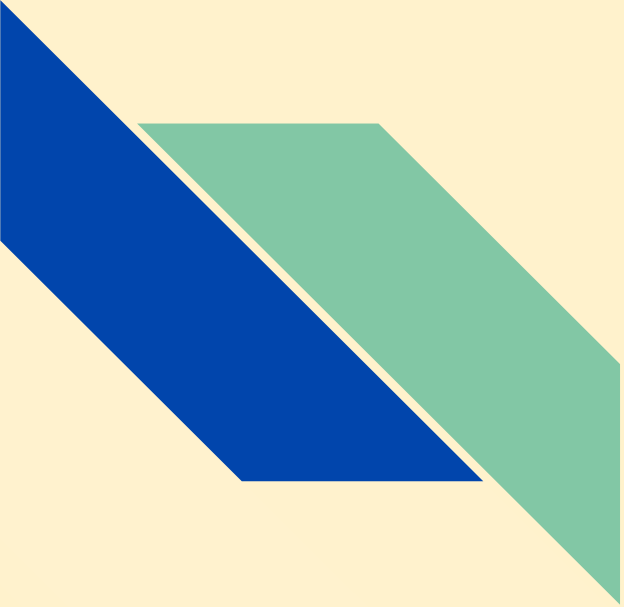
Average score of Grade 12 students for ACT components for lowest-performing subset





Conclusions and Future Directions

- Start with **Los Angeles** county - 89 schools, go down ranked list
- **ACT** - Emphasis on English, **SAT** - Emphasis on Math
- Twice the number of SAT test-takers as compared to ACT test-takers
- 1) Integrate Grade 11 data
- 2) District-level analyses
- 3) Geospatial analyses



Questions

Thank you