Project 1

Project 1: Standardized Test Analysis

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PROBLEM STATEMENT

Los Angeles Unified School District recently signed a contract with an external organization providing coaching to improve student college and career readiness for a select group of schools with a focus on reading/writing and math content areas. As a contractor, I am tasked with analyzing ACT/SAT standardized test performance data for 12th graders from previous school years (2019) to identify trends to assist LAUSD and the external organization in narrowing down their focus. Should coaches focus on one or both content areas and should school socioeconomic status be a factor in school selection?

Process

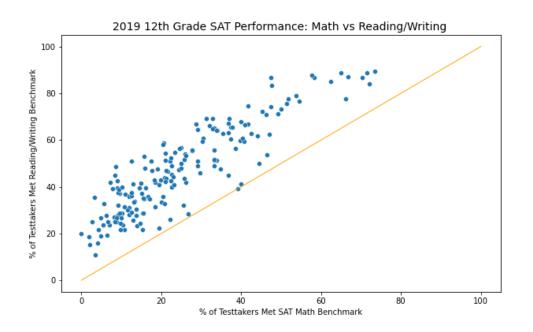
Collection Cleaning EDA Insights & Recommendations

Sourced the 2019 CA SAT, ACT, and Free & Reduced Price Lunch datasets from the California Department of Education website Cleaned each
dataset (nulls,
blanks, character
replacement, filters,
datatype changes)
and merged the
additional dataset
with the two main
datasets

Utilized a correlation heatmap to visualize correlations betwen features

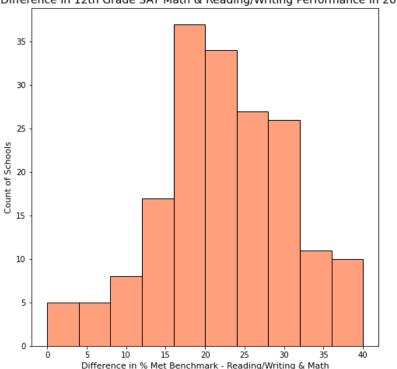
Explored basic statistical values to identify trends and uncover insights Coming up!

Overall, schools had stronger performance on the reading and writing portion of the SAT than math.

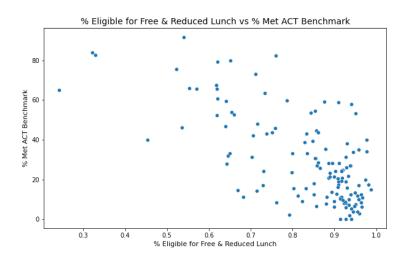


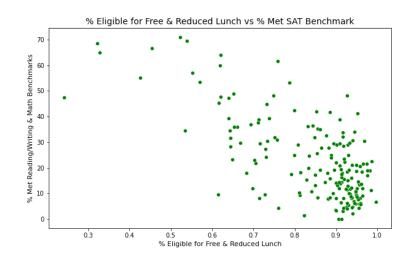
Gaps in reading/writing and math performance is concentrated in the 16-32 % difference range.



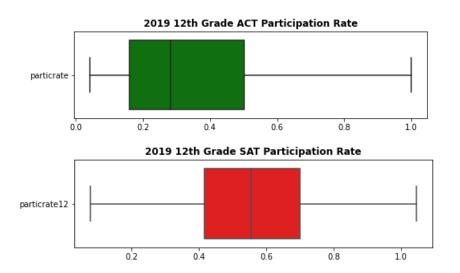


Schools with higher rates of students who qualify for free and reduced lunch correlate with lower ACT and SAT performance.





Student participation low for the ACT. 75% of schools where ACT testing was available for 12th graders had lower than 50% participation.



Recommendations

- 1. Coaching should focus mainly on math content
- % of students eligible for free & reduced lunch is a metric worth considering in narrowing down the list of schools to support through the partnership in addition to other metrics such as % ELL or % of students enrolled in AP courses
- ACT/SAT may no longer be the best assessment to measure college & career readiness
 - As of 2022, ACT/SAT no longer administered by the CA Department of Education
 - Many institutions no longer require
 ACT/SAT as prerequisites to application

Questions?

Sources

act 2019 ca.csv: 2019 ACT Scores in California by School (source)

<u>sat_2019_ca.csv</u>: 2019 SAT Scores in California by School (<u>source</u>)

<u>frpm1819.xlsx</u>: Unduplicated Student Poverty – Free or Reduced-Price Meals Data

2018–19 (<u>source</u>)