The Outliers

A Non-standardized Approach to Standardized Testing in California Schools

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57%

Approximate percentage of Schools in California that are unable to get more than half of their students to pass the SAT
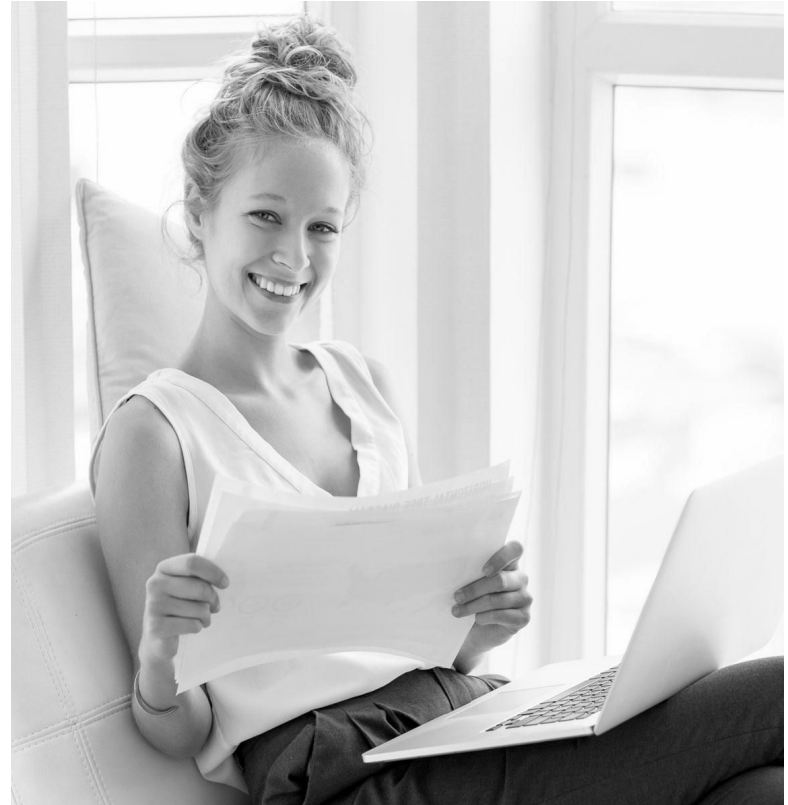
The Problem Statement

Over **57%** of California schools fail to get a simple majority of their students to pass their SATs. This presentation aims to **identify characteristics** of these schools and **utilize the outliers** to recommend solutions to the Californian Government.

Our Data Assumptions

We assumed that the total unduplicated count of students who meet household income or categorical eligibility criteria for **free or reduced meals (FRPM)** could be utilized as measure of student's poverty level.

Our Approach

STEP 1
Researching the topic via blog articles and interviews

STEP 3
Cleaning Data to ensure we have the right information

STEP 5
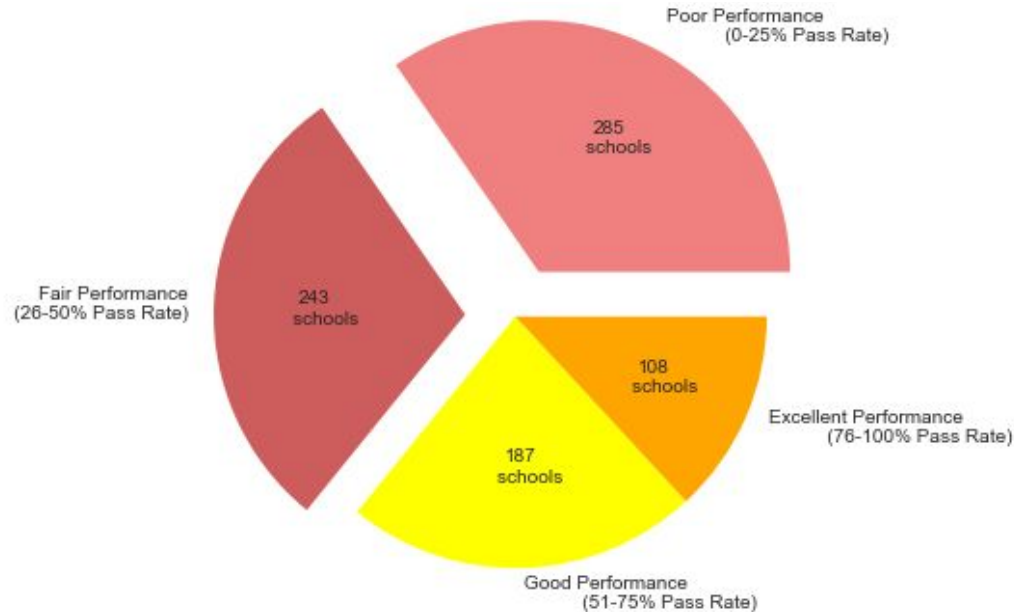Presenting our recommendations and observations

STEP 2
Searching for additional external data
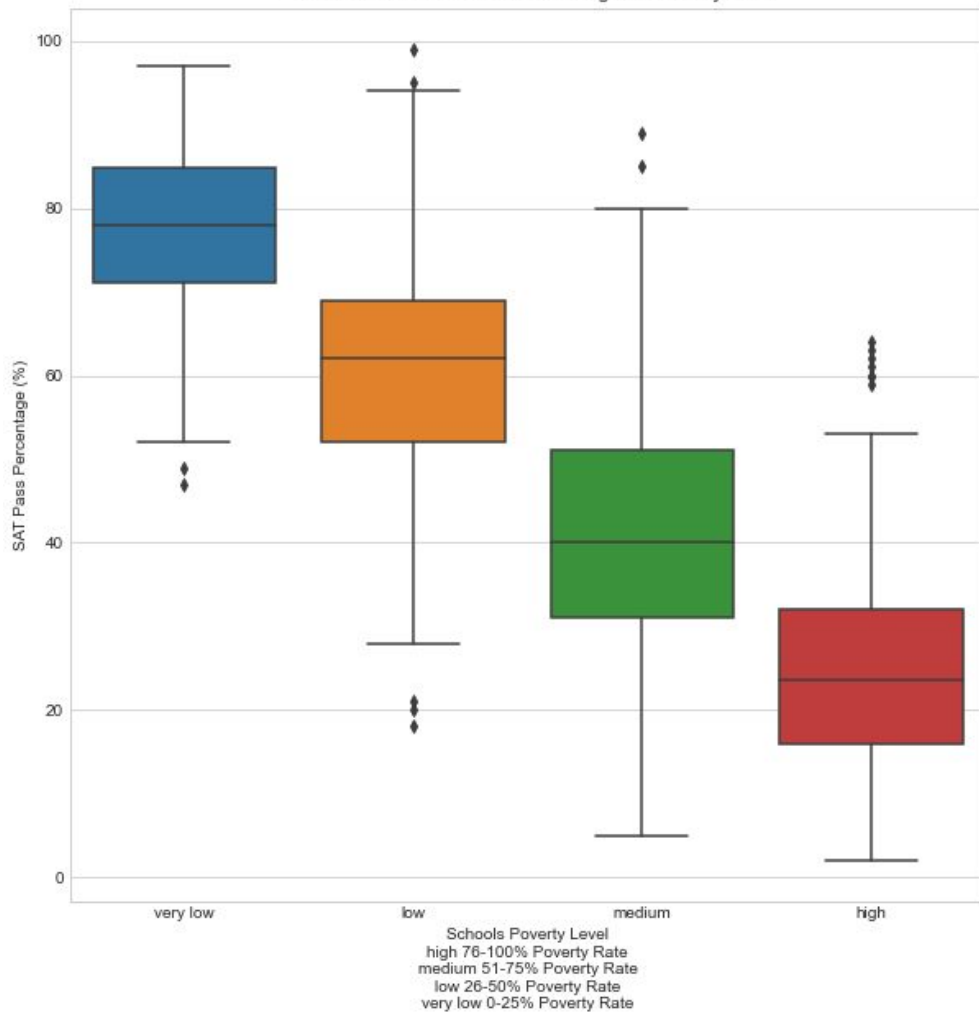
STEP 4
Analyzing our Data to deduce patterns

Our Observations

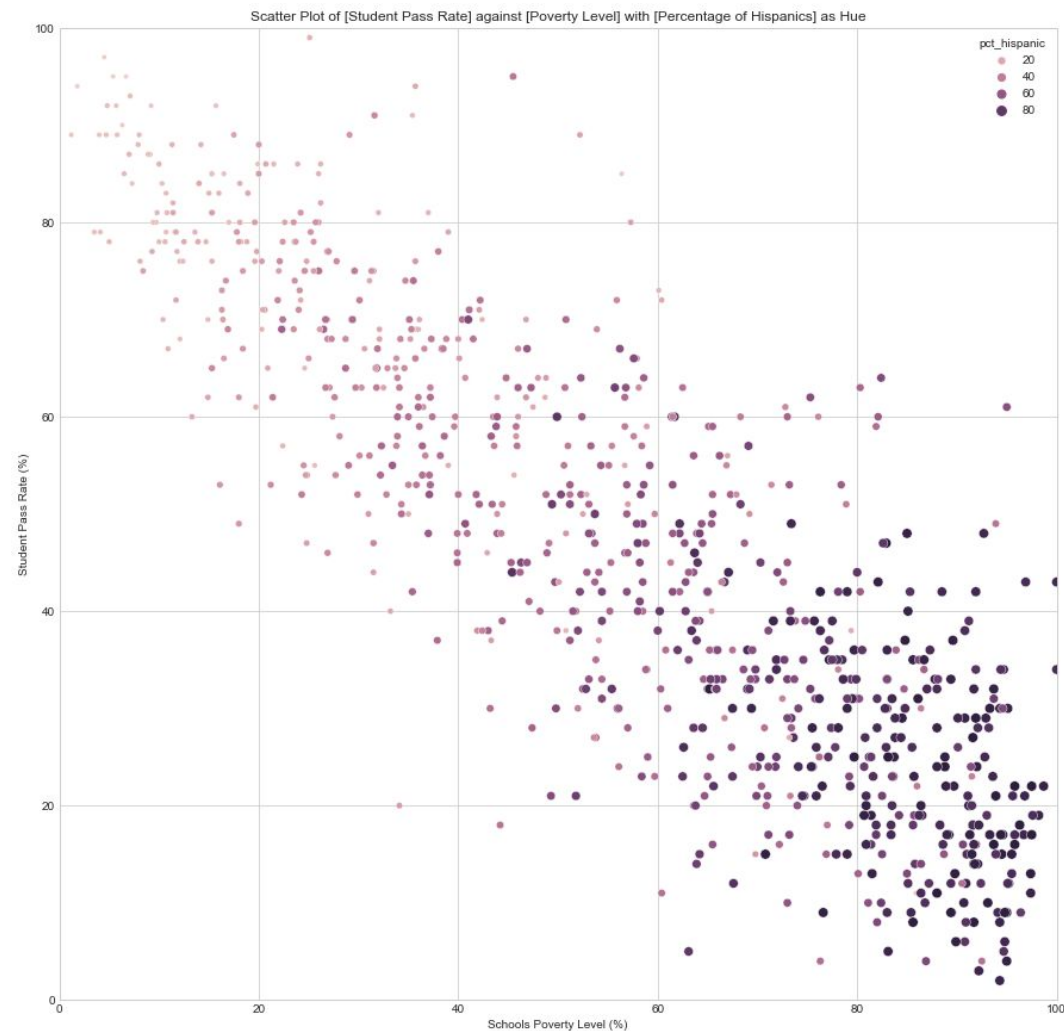California Schools 2018/19 Standardized Test Performance
Percentage of Schools (%)

Poor Performance
(0-25% Pass Rate)

285
schools

Fair Performance
(26-50% Pass Rate)

243
schools

108
schools

Excellent Performance
(76-100% Pass Rate)

187
schools

Good Performance
(51-75% Pass Rate)

The image shows that the number of schools with SAT pass rates <50% are substantially more (by 233) than schools with SAT pass rates >50%

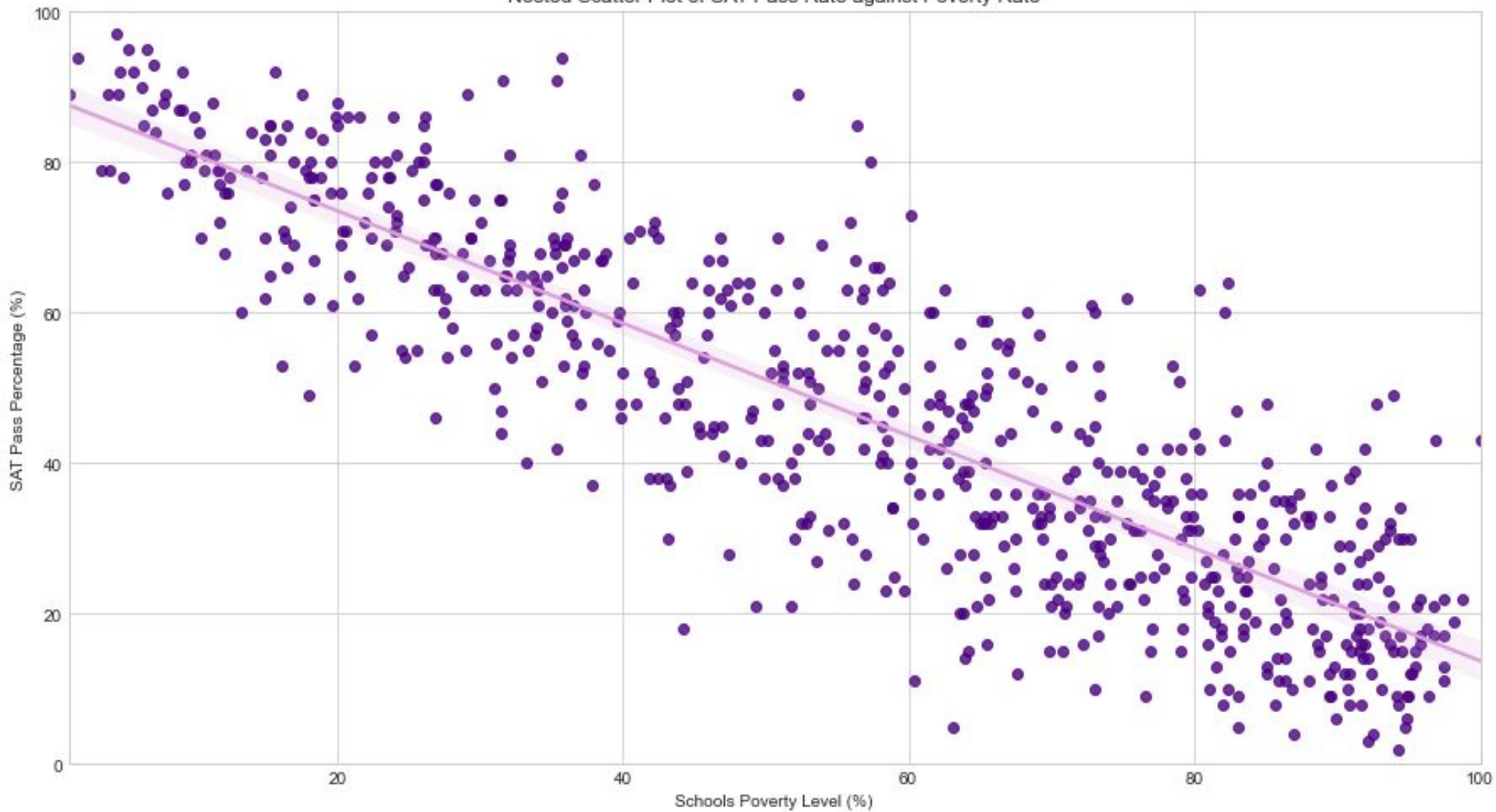Nested Box Plot of SAT Pass Rate against Poverty Level

This shows that schools with high poverty rate have the most number of outliers, while the schools with low-poverty scores have the lowest spread of data

Scatter Plot of [Student Pass Rate] against [Poverty Level] with [Percentage of Hispanics] as Hue
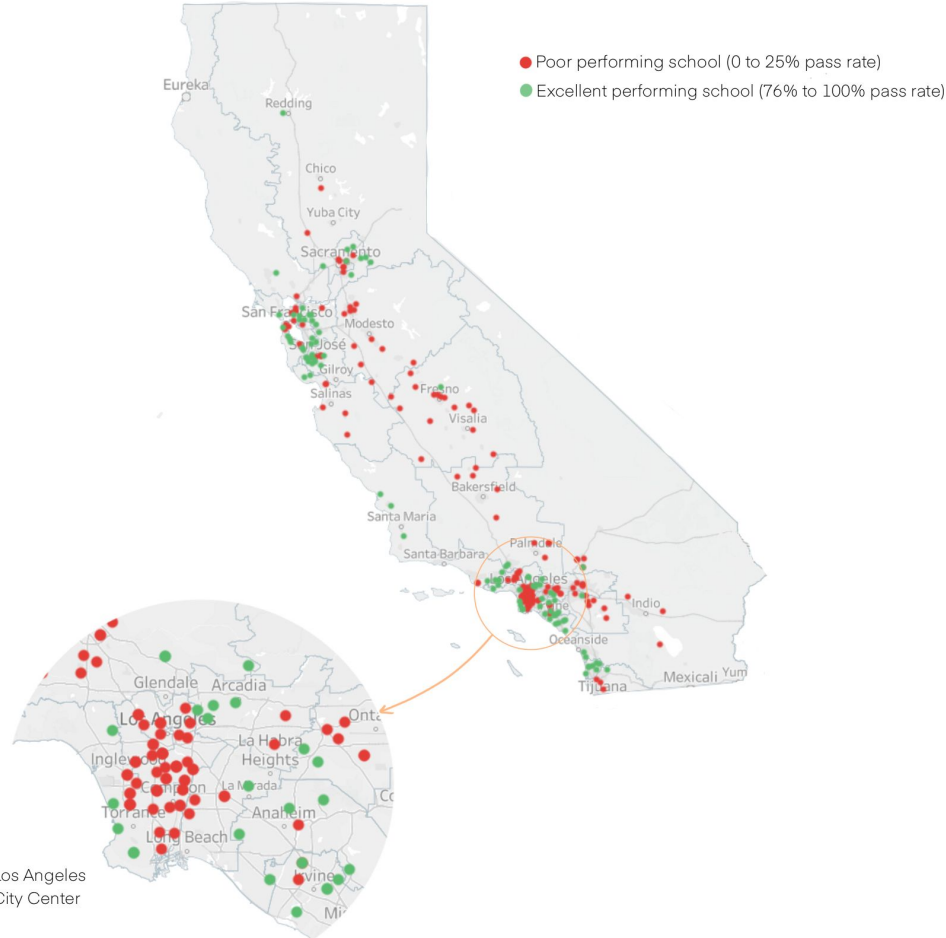
The shows the strong negative correlation **85%** of School Poverty Rates to School SAT Percent pass rates. As well as how Hispanic Students relate to this correlation **80%**.

Nested Scatter Plot of SAT Pass Rate against Poverty Rate

Map of California Showing Locations of Top Performing and Poor Performing Schools on the SAT

- ● Poor performing school (0 to 25% pass rate)
- ● Excellent performing school (76% to 100% pass rate)

Los Angeles City Center

The above image shows that the highest number of poor performing schools are clustered in the **Los Angeles City Center**.
With excellent performing schools located on the Out-Skirts of Town

Our Recommendations

Talk to
Principal Esau
Berumen

The Positive Outliers

SCHOOLS	SAT PASS RATE (%)	POVERTY RATE (%)
Hawthorne Math and Science Academy	64	82
Rosemead High	63	80
Van Nuys Senior High	62	75

Recommendations
because not everything can be done with Technology

FOOD STAMP LIMIT
a law should be passed that caps the limit of students on food assistants programs at each school to 50%. The excess students should be bussed to other schools, this would help even out the number of students within the poverty group per school.

GO BEYOND TECH
The State of California Education ministry should officials to the outlier schools to study what the schools are doing right. As well as bringing Principals, staff and students from these successful schools together to develop a potential standardized playbook to help schools in similar circumstances replicate their strategies for success.

Thanks!

Does anyone have any questions?

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