Test-Prep Market Insights 2022

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- Choice between ACT & SAT test
- Best/Poor Performing States





Our Purpose

Why the analysis?

KHANACADEMY













A Big & Growing Pie!

The SAT and ACT test prep was estimated to be a US\$ 17.5 billion industry in North America¹. Every year, parents can pay up to thousands of dollars just to help their kids to secure a place of their dream school.

Despite the recent movement towards making these tests optional, the industry is still projected to continue to grow at Compound Annual Growth Rate of 6.39%, which amounts to US\$11.93 billion of growth from 2022 to 2026².

The purpose of our project is to provide insights on the industry based on the recent SAT and ACT scores to help service providers leverage on this expanding market.

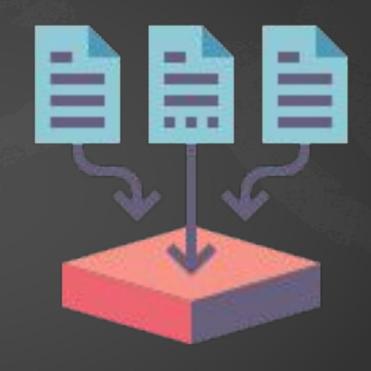
1https://www.bostonglobe.com/business/2016/03/04/new-sat-paying-off-for-test-prep-industry/blQeQKoSz1yAksN9N9463K/story.html

2https://www.prnewswire.com/news-releases/test-preparation-market-size-in-the-us-to-grow-by-usd-11-93-billion--increasing-use -of-analytical-tools-in-test-preparations-to-boost-growth--technavio-301541886.html



Our Data

Data Preparation



Data Processing



Phase 1

Research



Phase 2

Data Cleaning



Phase 3

Merging of Datasets



Analysis!

Phase 1 - Research To Supplement Existing Data

- 2020 SAT Scores by State (https://soflotutors.com/blog/sat-scores-by-state/)
- 2021 SAT Scores by State
 (https://blog.prepscholar.com/average-sat-scores-by-state-most-recent)
- 2020 ACT Scores by State
 (https://www.act.org/content/dam/act/unsecured/documents/2020/2020-Averag e-ACT-Scores-by-State.pdf)
- 2021 ACT Scores by State (https://www.act.org/content/dam/act/unsecured/documents/2021/2021-Averag e-ACT-Scores-by-State.pdf)



Phase 2 - Data Cleaning

Steps:

- 1. Import the datasets
- Check for missing values, duplicate and outlier and fix values where applicable.
- 3. Check the data types of each feature and fix data types if necessary.
- 4. Rename columns all to lowercase and snake case.
- 5. Drop irrelevant rows/columns.



Phase 3 - Merging of Datasets

Reasonable Check:

- 1. Check and verify number of rows and columns of each merged dataset against the expected number of rows and columns.
 - a. Check for number of rows and columns (e.g. using dataset.shape())
 - b. Check for difference in row (e.g. using set function)
- 2. Check for spelling errors, case sensitive names and other data issues if any.
- 3. Perform data cleaning (phase 1) if necessary to fix issues found in step 1 and 2 above.
- 4. Merge dataset once data is clean.
- 5. Go through step 1 to 3 above. If results are satisfactory, then proceed to data analysis.







Potential Market Opportunities

Let's find out which states hold promising revenue

Data Insights



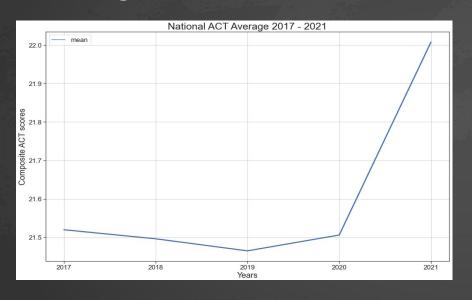


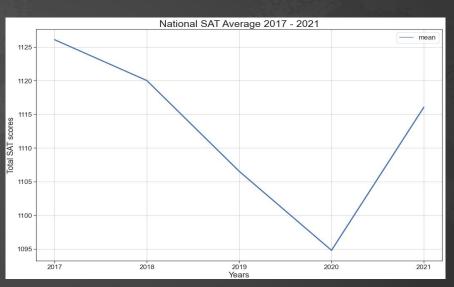
Trend

Insights

ACT & SAT Performance Trend

Average National score per year

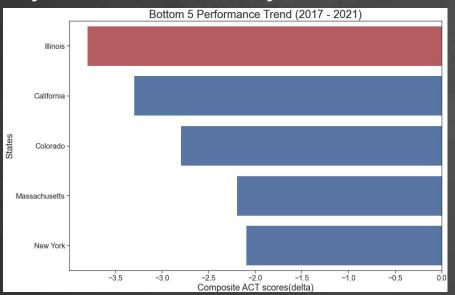


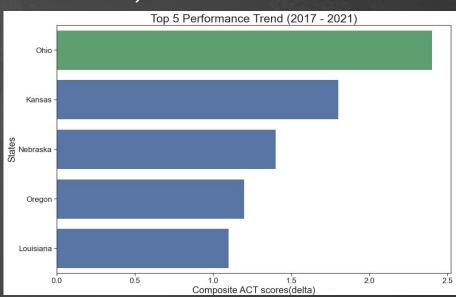


- ACT National Average trend was average until 2021 can see a steep improvement
- SAT National Average trend was lowest at year 2020 and improved in 2021

Top & Bottom 5 states (ACT)

By summation of 5 years delta (Year1 - Year2)



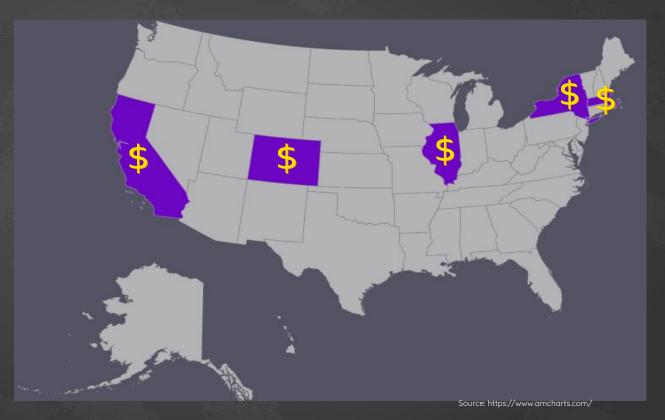


- 1. Top 5: Ohio, Kansas, Nebraska, Oregon, Louisiana
- 2. Bot 5: Illinois, California, Colorado, Massachusetts, New York

Potential Markets for ACT

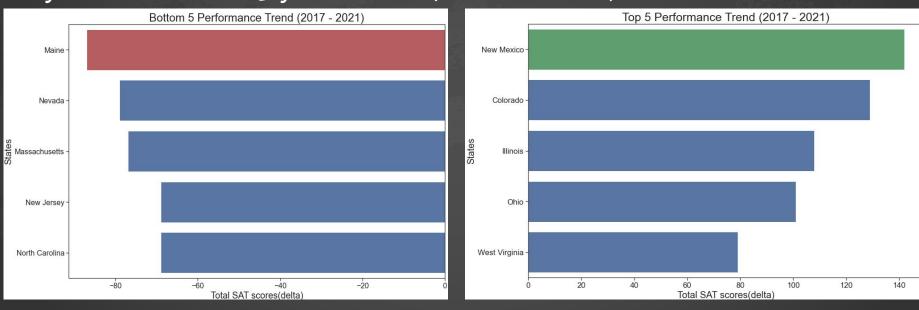
Service providers can consider tapping into these markets:

- → Illinois
- → Califor<u>nia</u>
- → Colorado
- → Massachusetts
- → New York



Top & Bottom 5 states (SAT)

By summation of 5 years delta (Year1 - Year2)

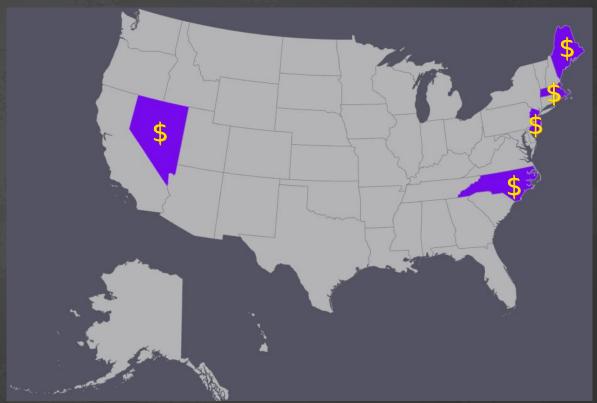


- 1. Top 5 : New Mexico, Colorado, Illinois, Ohio, West Virginia
- 2. Bot 5 : Maine, Nevada, Massachusetts, New Jersey, North Carolina

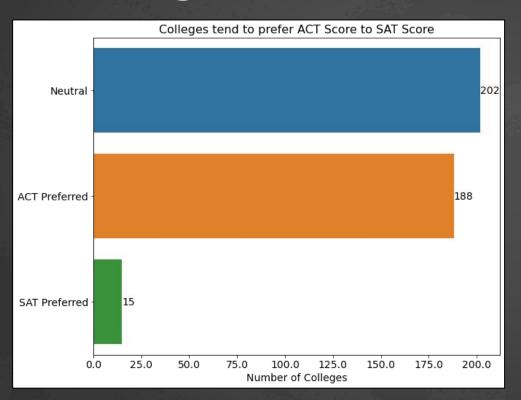
Potential Markets for SAT

Service providers can consider tapping into these markets:

- → Maine
- \rightarrow Nevada
- → Massachusetts
- → New Jersey
- → North Carolina



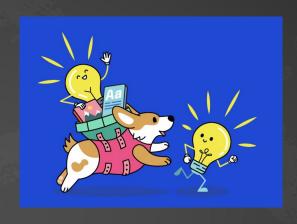
Colleges Test Preference



Based on analysis, ~46% of colleges are more inclined towards ACT scores.

This information can be used for service providers to market ACT tests and potentially drive up demands of test-prep service for ACT.





Marketing Ideas

Understand students' demands Success story marketing

What do students want?

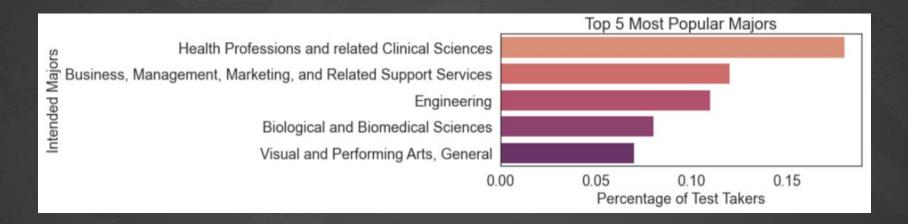


Dream Major



Dream College

Top 5 Most Popular Majors



56% of students are interested in these 5 majors

Top 5 Most Popular Colleges

University of California
is the most popular



Success Story Marketing

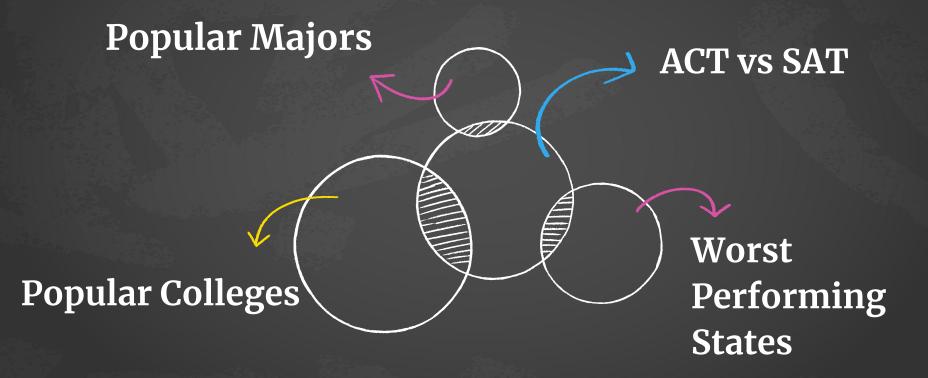


Conclusion

Final conclusion and Recommendations



Growing Your Pie!



Limitation



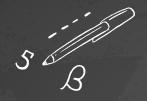
Limited Data



Insights ≠ Demands



Factors not captured



Thank You!





Questions?