

Scholastic Assessment Test (SAT)

**Social Leveller or Divider?
Economic Enabler or Disabler?**

Standardised Academic Tests

Country



Test

SAT

A-level

Format

- Evidence-Based Reading and Writing (EBRW): 200 to 800 marks
- Math: 200 to 800 marks

-Total: 400 to 1600 marks

- H1 subject: 10 points
- H2 subject: 20 points

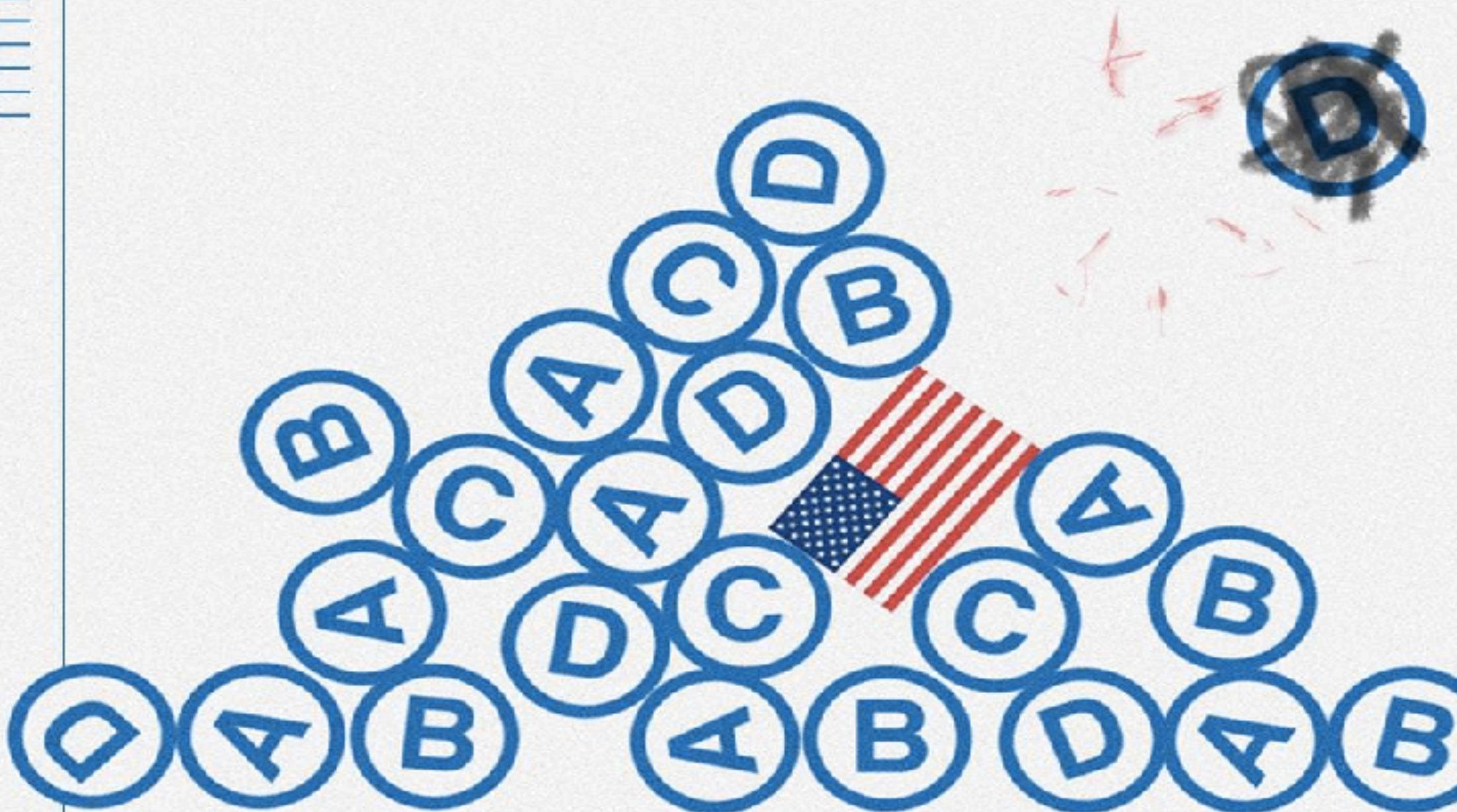
-Total: 0 to 90 points

Purpose

Admission to college/university

THE FORBES INVESTIGATION

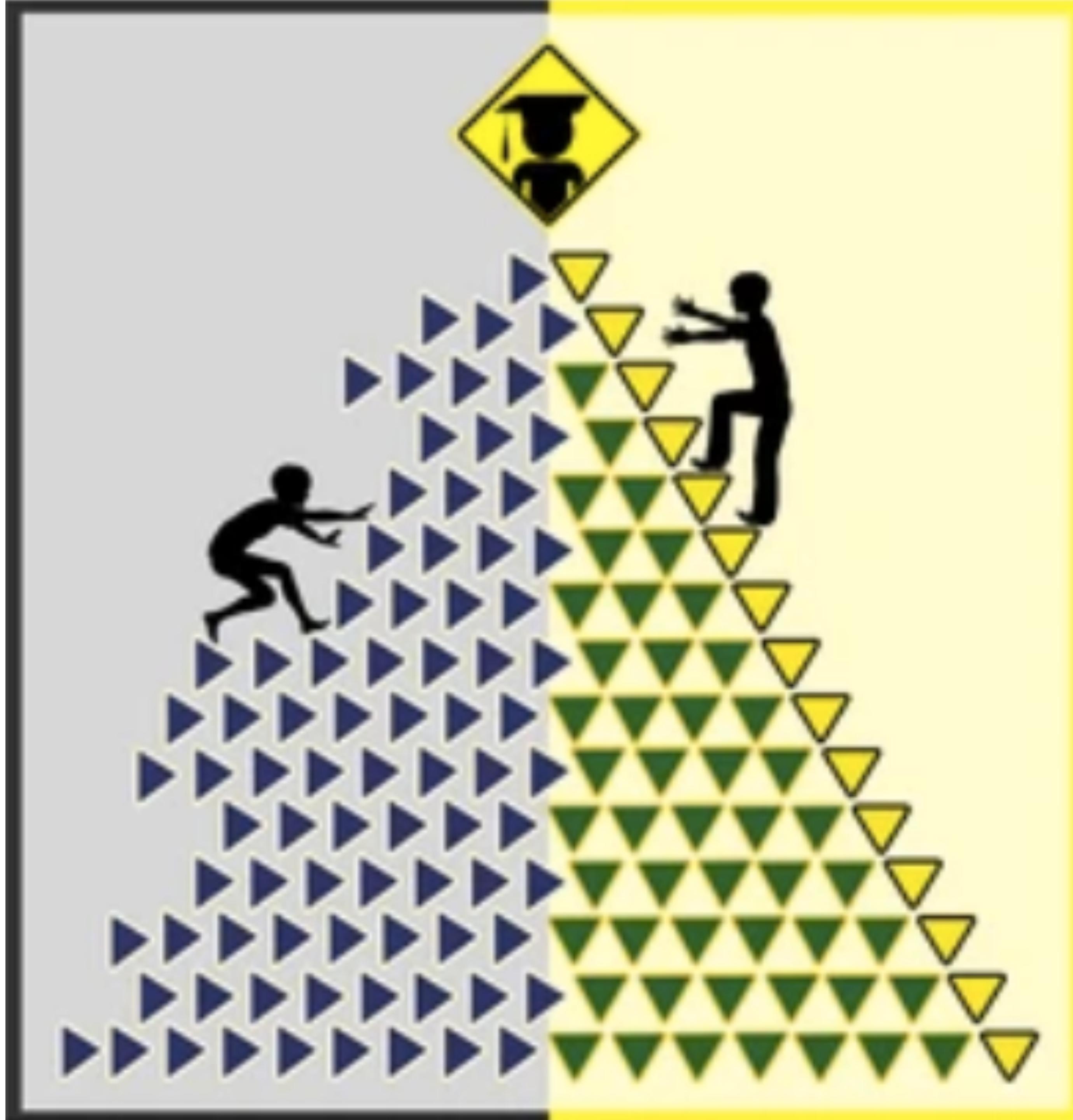
How The SAT Failed America



“The SAT is basically a dodge. . . It provides a shiny scientific cover for a system of inequality that guarantees that rich kids go to the most selective college. It makes all that sound like science when it’s not.”

-Forbes (2020)

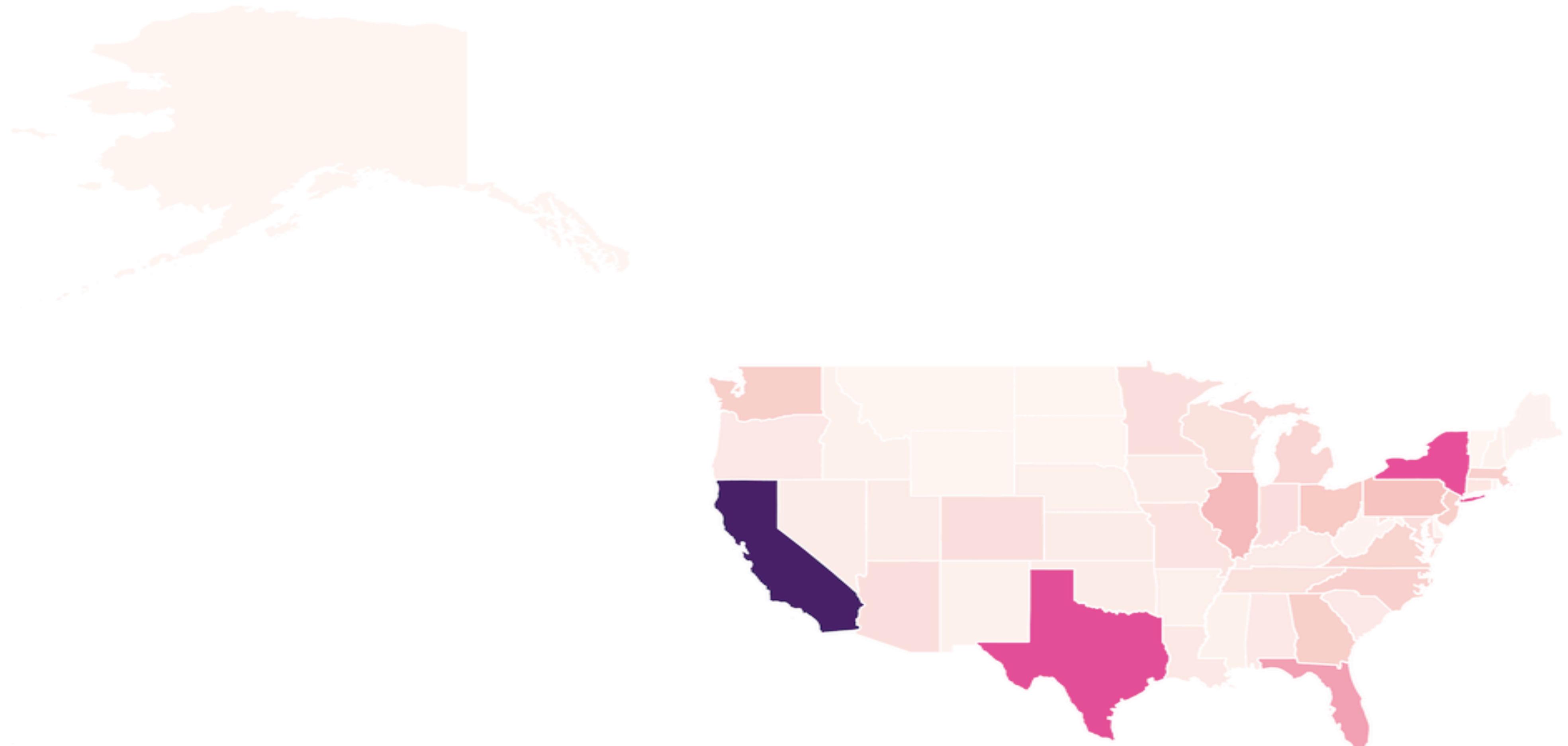
Inherent Contradiction of Education



Problem Statement

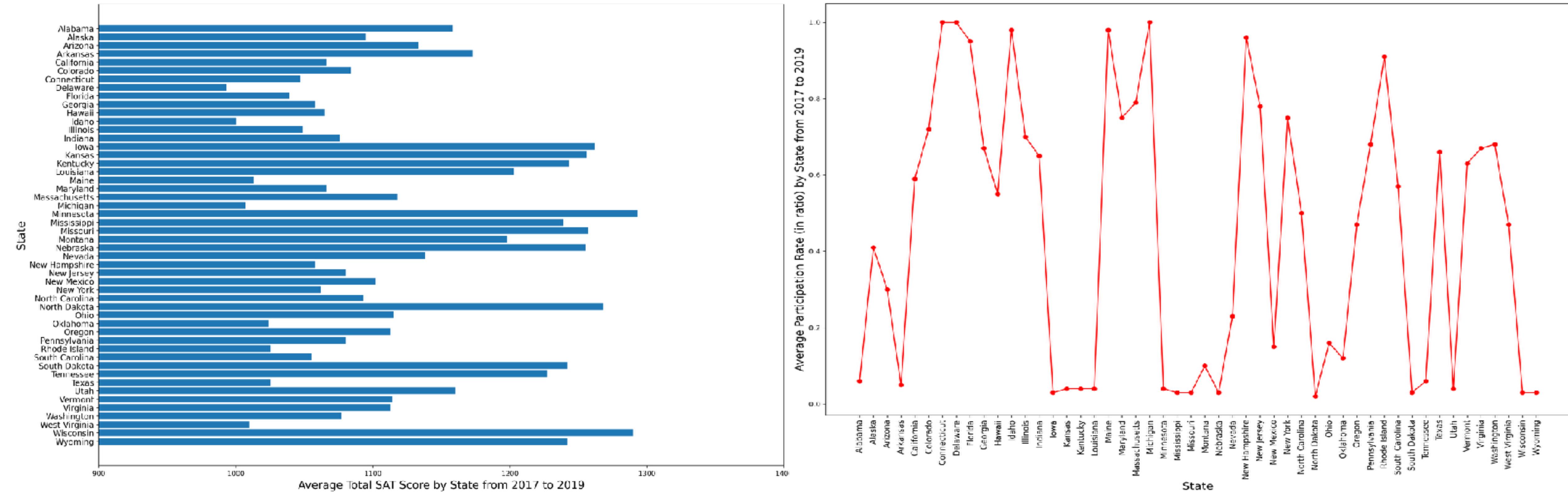
Representing College Board's legal team, gather statistical evidence by drawing upon 2017 to 2019 SAT data to refute the claims alleged by the media outlets and reshape the negative perceptions associated with the SAT model. If the evidence suggest otherwise, propose recommendations to ensure a more level-playing field for all SAT takers.

Total GDP 2020 (by State)



- (1) Peripheral states generally have higher GDP
- (2) Difference in income level across states are stark

SAT Score vs Participation Rate

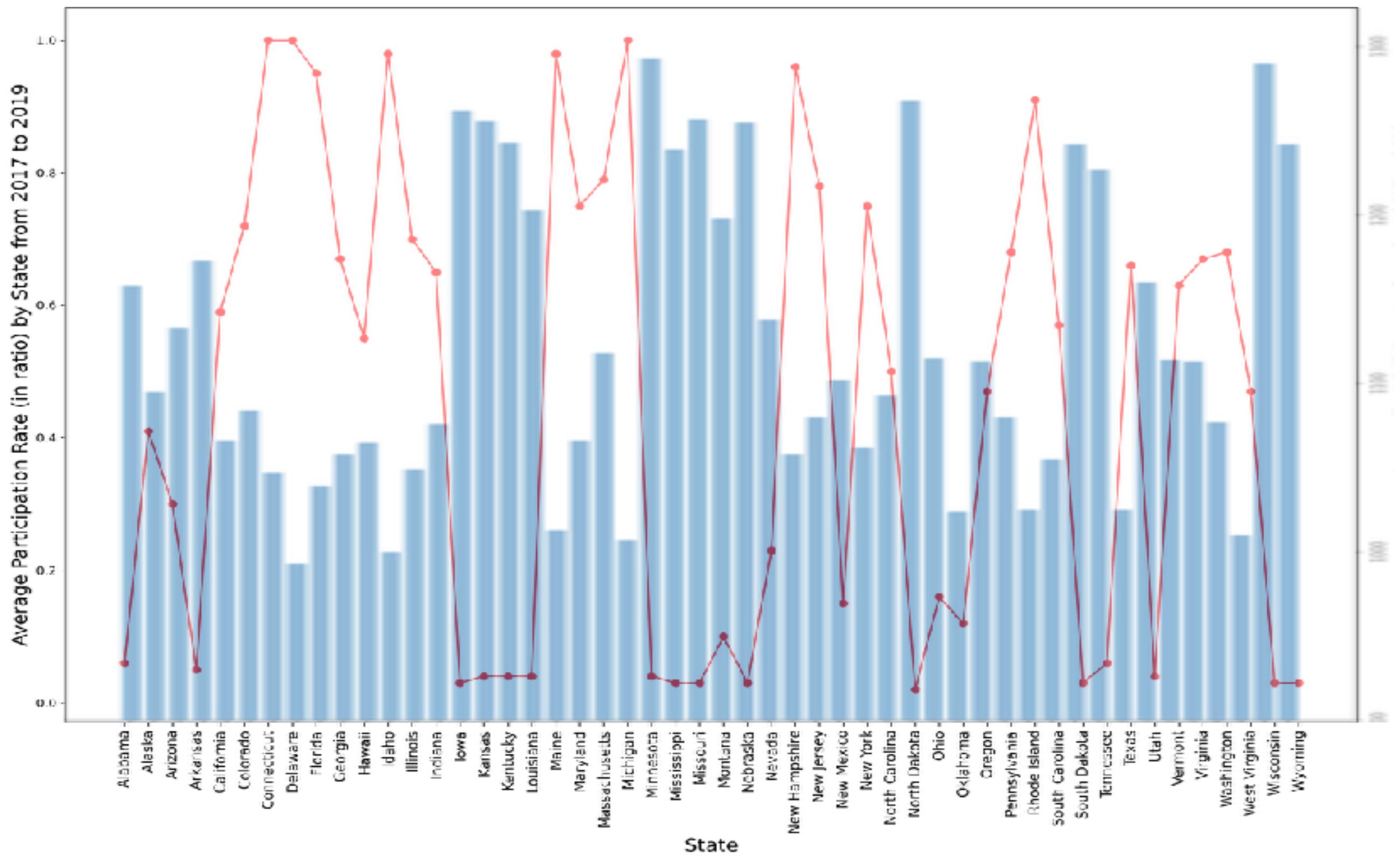


What do the shapes of both graphs suggest?

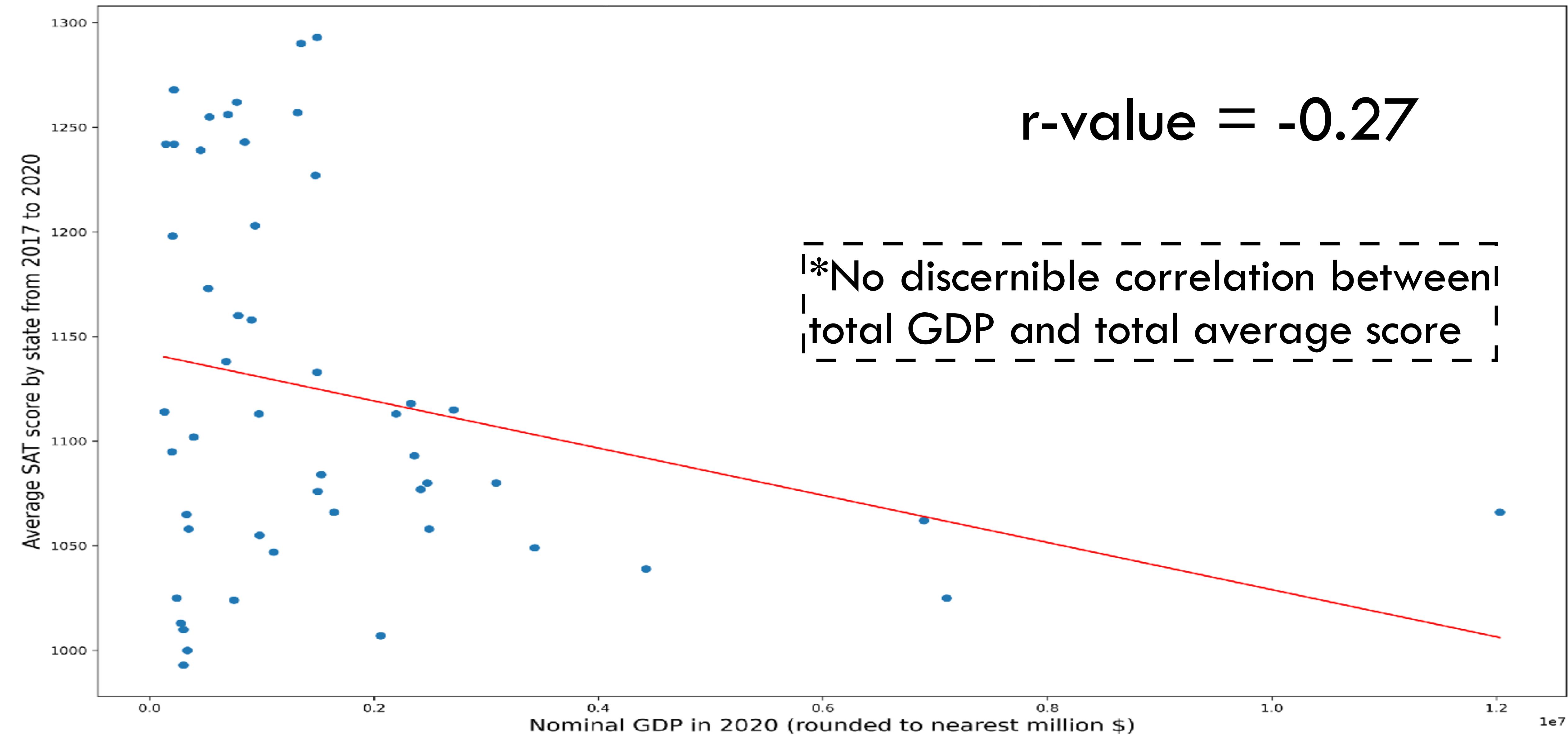
SAT Score vs Participation Rate

	pop_2020	total_gdp_2020	num_high_school_grad_avg	num_sat_taker_avg	part_rate_avg	ebrw_avg	math_avg	total_avg
pop_2020	1.000000	0.980538	0.993431	0.942260	0.263541	-0.297740	-0.225547	-0.279484
total_gdp_2020	0.980538	1.000000	0.980058	0.926407	0.269875	-0.292424	-0.214046	-0.268012
num_high_school_grad_avg	0.993431	0.980058	1.000000	0.934075	0.245885	-0.287805	-0.211276	-0.266768
num_sat_taker_avg	0.942260	0.926407	0.934075	1.000000	0.496067	-0.478130	-0.395172	-0.460046
part_rate_avg	0.263541	0.269875	0.245885	0.496067	1.000000	-0.854970	-0.777525	-0.848283
ebrw_avg	-0.297740	-0.292424	-0.207805	-0.478130	-0.854970	1.000000	0.891092	0.994731
math_avg	-0.225547	-0.214046	-0.211276	-0.395172	-0.777525	0.891092	1.000000	0.904888
total_avg	-0.279484	-0.268012	-0.266768	-0.460046	-0.848283	0.994731	0.904888	1.000000

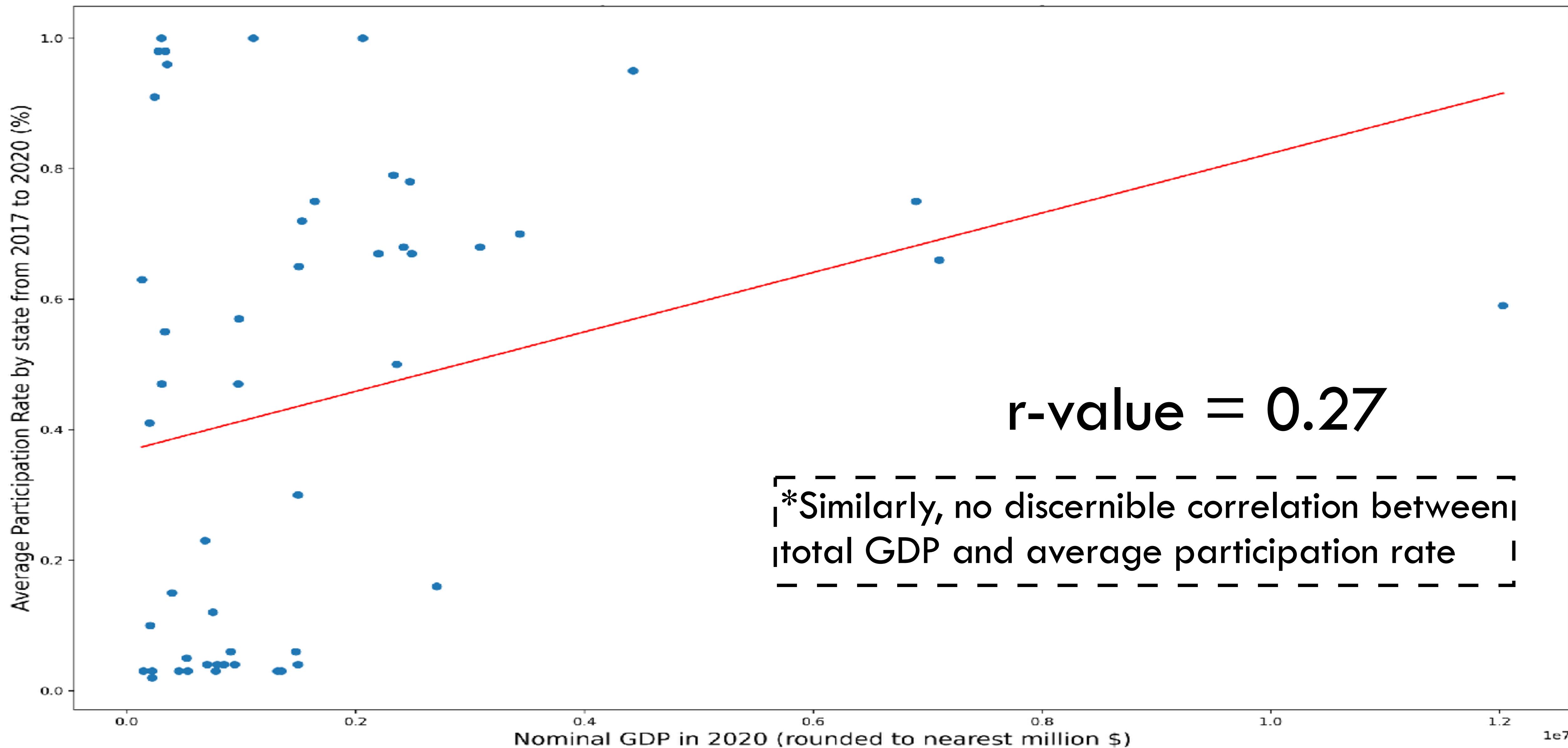
- Inverse relationship between SAT scores and participation rates signified by the strong negative linear correlation.
- For states with high participation rates, the relatively even range of scores is attributed to the higher scores being “diluted” by the lower scores by virtue of an all-encompassing population.
- Conversely, for states with low participation rates, the higher SAT scores is due to individuals taking the SATs mostly constituting the academically inclined minority of the eligible population.



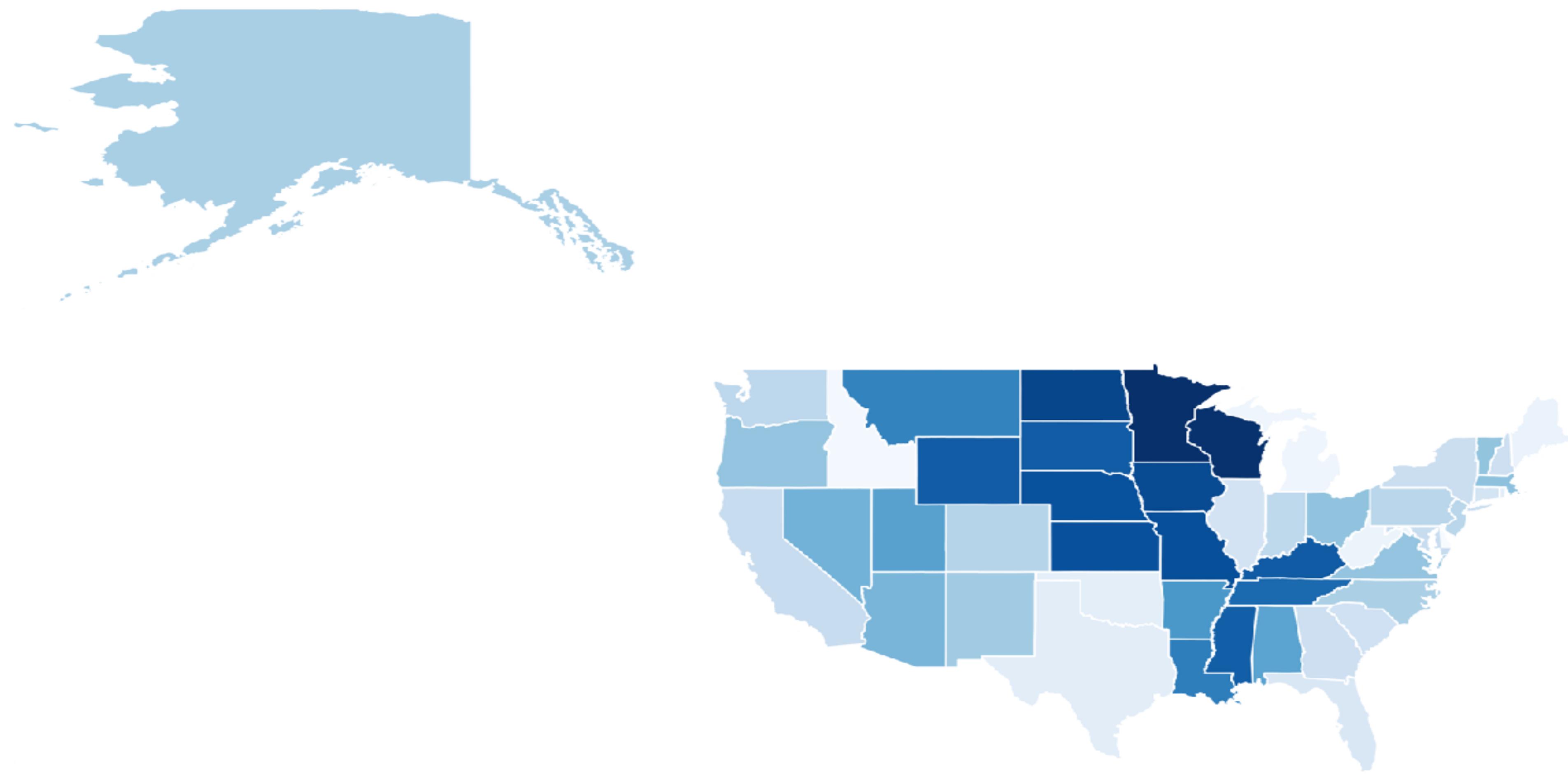
GDP vs Total Average SAT Score



GDP vs Average Participation Rate

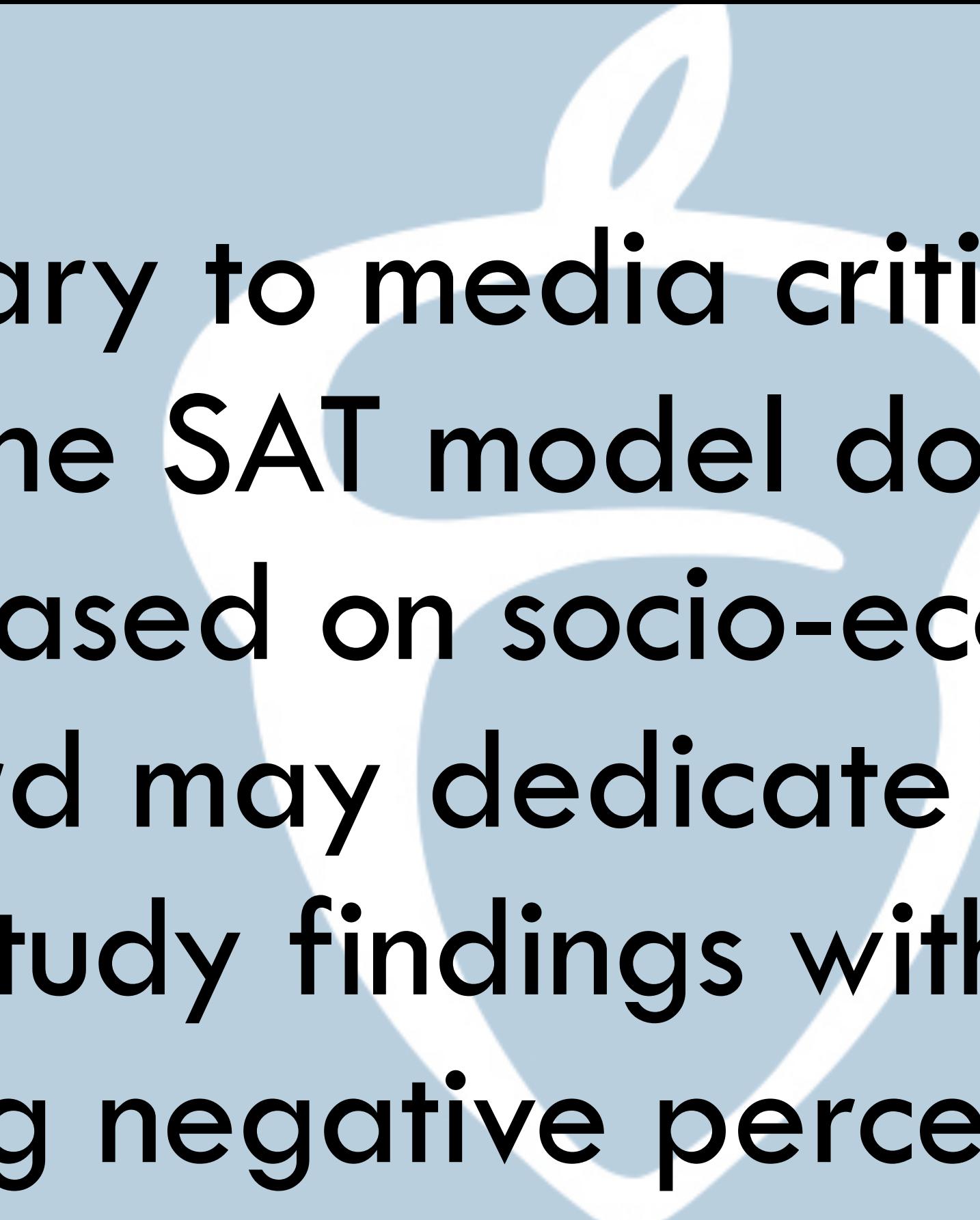


Total Average SAT Score (by State)



Landlocked states in mid-west and mid-south regions
have relatively higher total average SAT scores

Conclusion & Recommendation



In sum, contrary to media critiques, the analysis suggest that the SAT model does not discriminate individuals based on socio-economic status. The College Board may dedicate more resources to convey the study findings with the objective of counteracting negative perceptions of the SAT model developed in recent years.



Thank you!

Reference List

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- Forbes quote: <https://www.forbes.com/sites/susanadams/2020/09/30/the-forbes-investigation-how-the-sat-failed-america/?sh=7d11037c53b5>
- Education pyramid: <https://image.shutterstock.com/image-illustration/unequal-education-concept-sign-showing-260nw-289157465.jpg>
- College board background 1: <https://novatohigh.nusd.org/wp-content/uploads/sites/12/2021/03/SAT.png>
- College board background 2: <https://about.collegeboard.org/sites/aboutus/files/2020-11/Acorn-Sharing-Image.jpg>