

UC and the SAT/ACT



RESEARCH FINDINGS

1994 - 2019

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Description of UC data

Sample: All
California high
school graduates
who applied for UC
freshman admis-
sion from 1995
through 2016

- SAT scores
 - Composite of verbal + math
 - Includes ACT-equivalent scores
- High school GPA
 - Grades in UC-required “a-g” subjects only
 - “Weighted” for AP/honors classes
- Family income
 - Log of family income in constant 2012 \$
- Parents’ education
 - Highest-educated parent
- Underrepresented minority status
 - Self-identification as Latina/o or Black



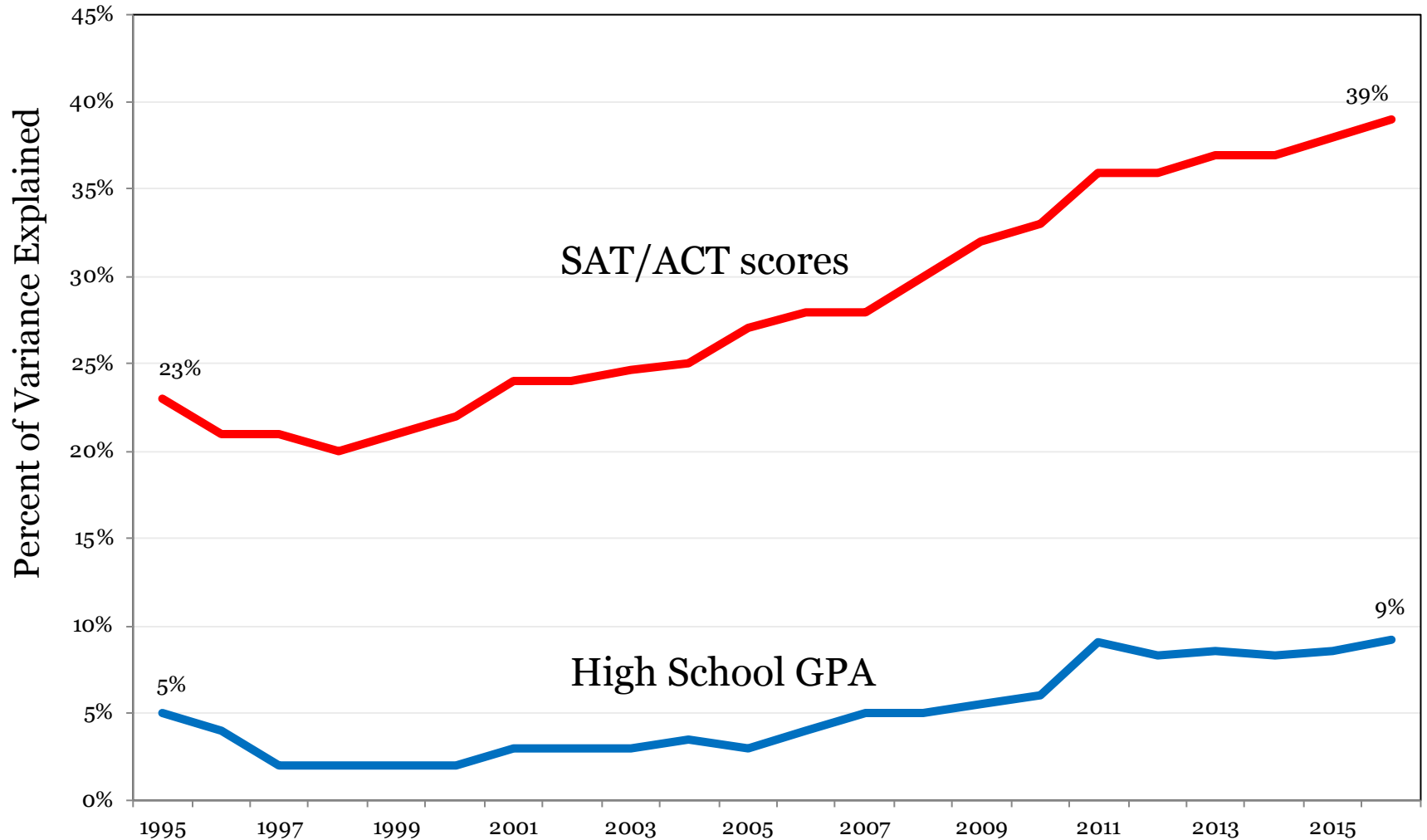
**Conditioning
effect of family
background on
SAT/ ACT scores
vs. high school
grade-point
average**

Correlations

	Family Income	Parents' Education	Race/ Ethnicity
High school GPA	.11	.14	-.17
SAT/ACT scores	.36	.45	-.38

Variance in SAT/ACT Scores and High School GPA Explained by Family Income, Education and Race/Ethnicity, 1995 to 2016

Regression equation: $SAT\ score\ or\ HSGPA = b_1(Log\ of\ Income) + b_2(Parent\ Ed) + b_3(URM\ Status)$



Predicting Success in College

“High school grades are a far better predictor of both four-year and six-year graduation rates than are SAT/ACT test scores. ... The consistency of the results is extraordinary. In all but one of these more than 50 public universities, high school GPA remains a highly significant predictor of six-year graduation rates after taking account of the effects of test scores. ...

“Test scores, on the other hand, routinely fail to pass standard tests of statistical significance when included with high school GPA in regressions predicting graduation rates”

William G. Bowen, Matthew Chingos, and Michael McPherson (2009), *Crossing the Finish Line: Completing College at America's Public Universities*, pp. 113-115.

UC Findings, Part 1

Of all UC admissions criteria, SAT/ACT scores are most affected by, and correlated with, the socioeconomic background of the student.

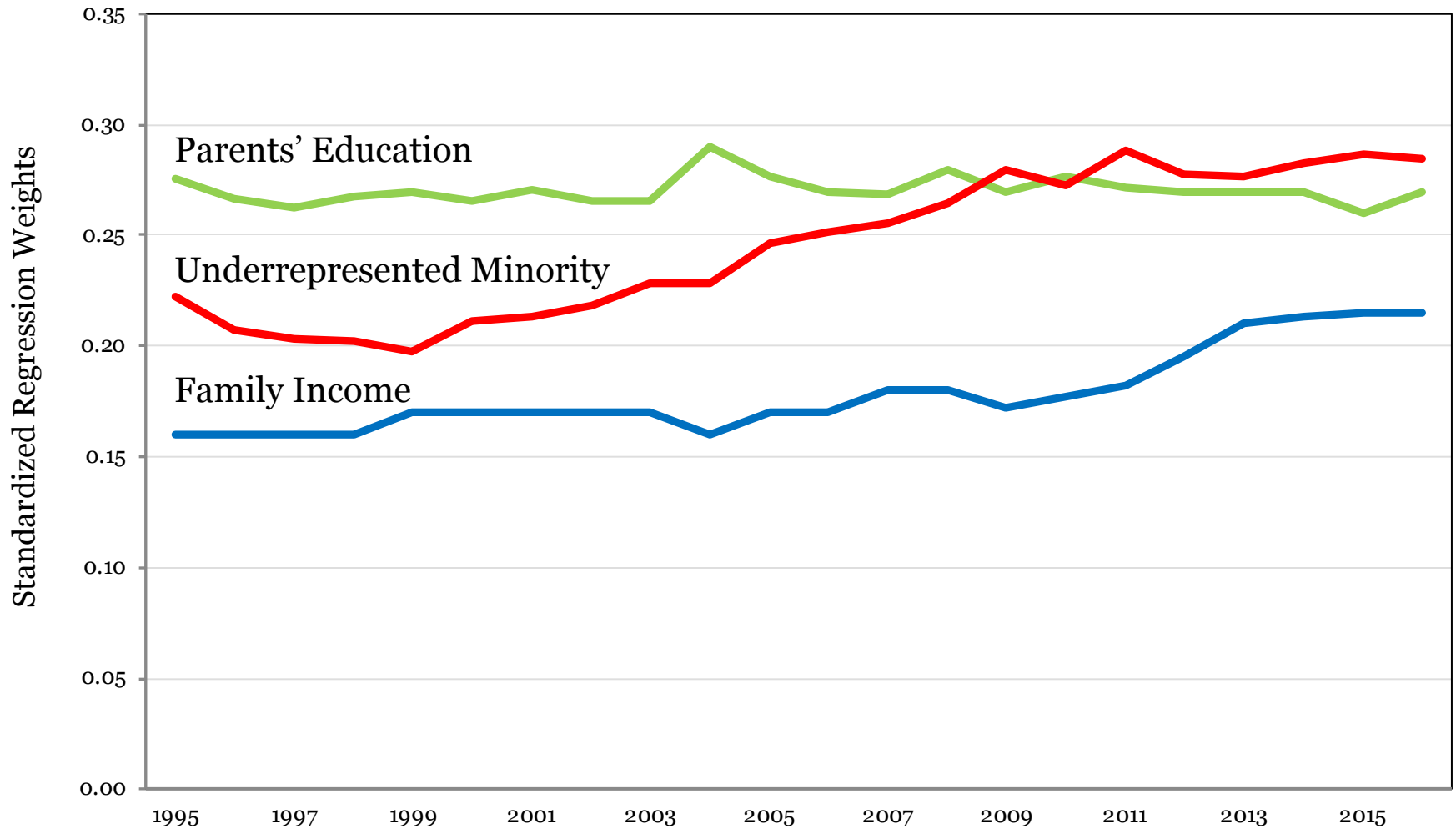
The conditioning effect of family background on SAT/ACT scores has increased sharply over the past quarter century and now accounts for over 40% of the variation in test scores among UC applicants.

The adverse impact of test scores on low income, first-generation, and minority applicants has grown far out of proportion to their modest validity in predicting success at UC.

Policy implication: The growing correlation between family background and SAT/ACT scores makes it difficult to rationalize treating scores purely as a measure of individual merit or ability, without regard for differences in socioeconomic circumstance.

Relative Weight of Family Income, Education, and Race/Ethnicity in Explaining SAT/ACT Scores, 1995 to 2016

Regression equation: $SAT/ACT \text{ score} = b_1(\text{Log of Income}) + b_2(\text{Parent Education}) + b_3(\text{URM Status})$



Racial Segregation in California Public Schools



Los Angeles Schools by Level of Segregation (2016)

	Number of Schools	Percent of schools
Majority nonwhite (50-100% nonwhite)	958	95%
Intensely segregated (90-100% nonwhite)	785	78%
Apartheid schools (99-100% nonwhite)	264	26%

Racial Segregation in California Public Schools



Over the past 25 years, California public schools have become among the most racially segregated in the US

Orfield, G. & J. Ee. (2014) “Segregating California’s Future,” UCLA Civil Rights Project/*Proyecto Derechos Civiles*.

Rapid increase in “intensely segregated” schools (90% or more URM)

Over half of all Latinx students, and 39% of African Americans, attend intensely segregated schools.

Double segregation by race and poverty

Black students on average attend schools that are two-thirds poor, while the average for Latinx is 70%.

Racial segregation is associated with multiple forms of disadvantage that combine to magnify test-score disparities

Card, D. & J. Rothstein. (2006). “Racial segregation and the black-white score gap.” NBER Working Paper 12078. Cambridge, MA: National Bureau of Economic Research.

UC Findings, Part 2

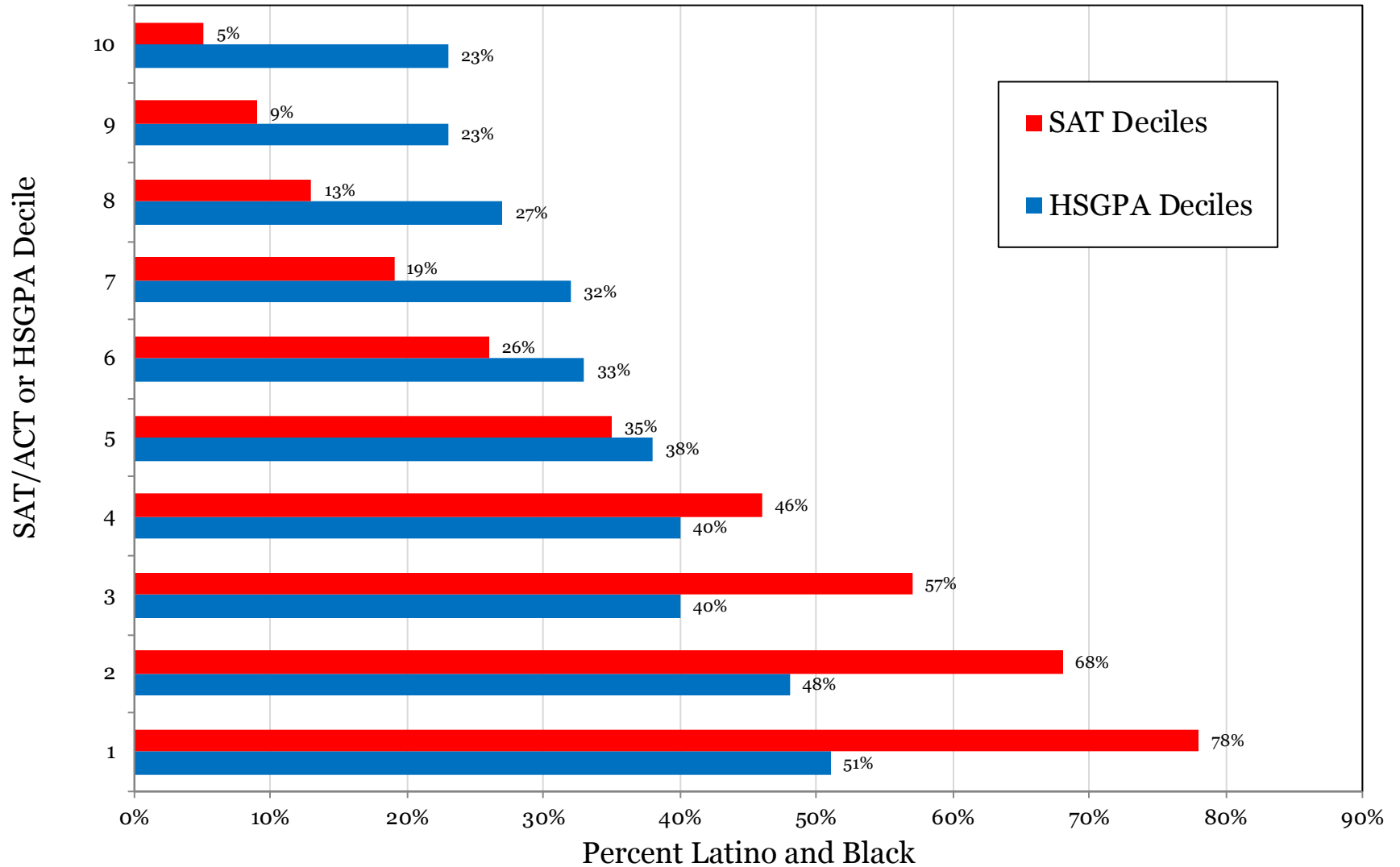
Race/ethnicity has an independent effect on SAT/ACT scores after controlling for parental education and income.

The conditioning effect of race on SAT/ACT scores has grown substantially in the past 25 years, mirroring the growing re-segregation of California public schools over the same period.

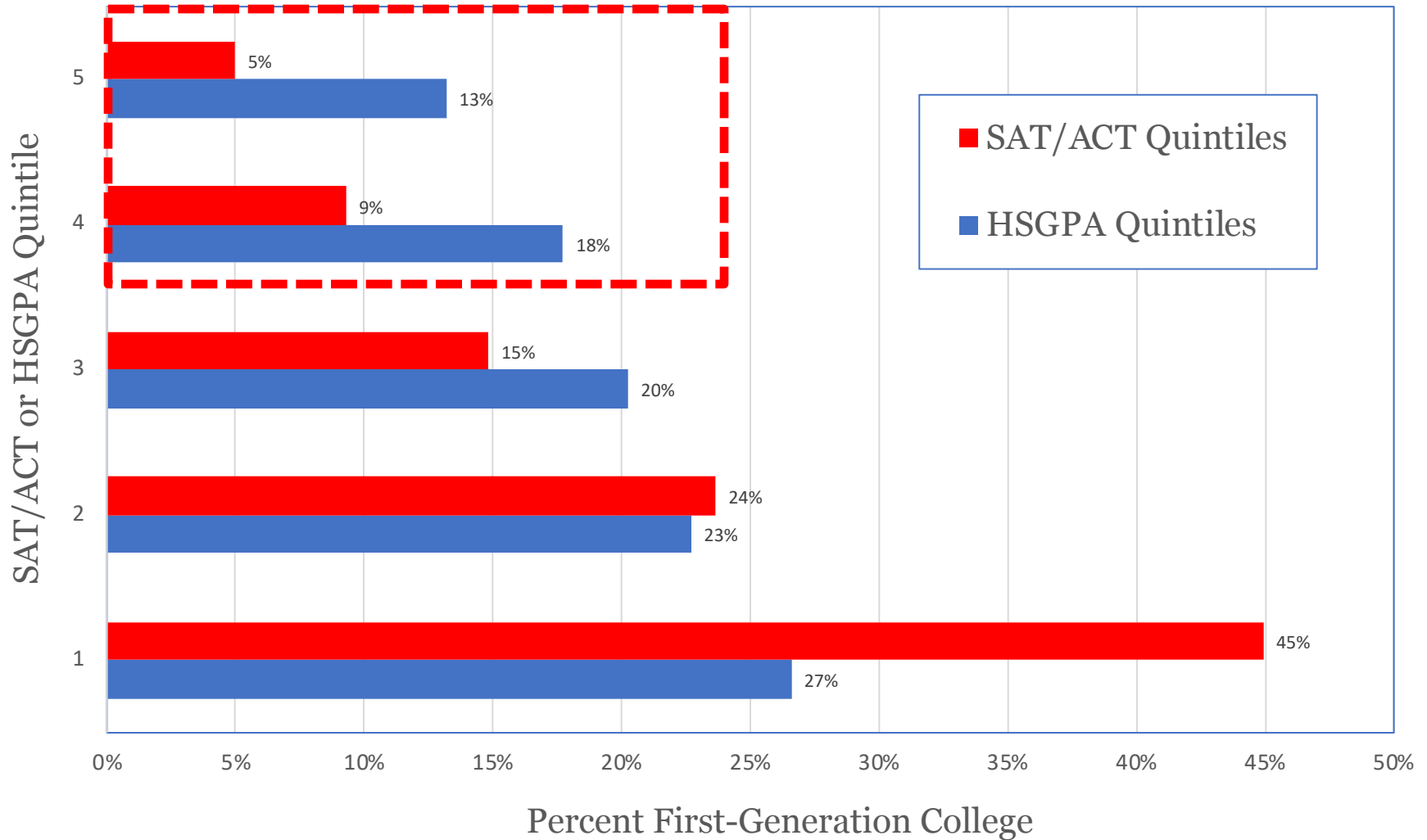
Statistically, race/ethnicity has become more important than either parental education or income in accounting for test-score differences among California high school graduates who apply to UC.

Policy implication: “Class based” or “race neutral” affirmative action is unlikely to prove an effective proxy for redressing racial/ethnic disparities in college admissions.

Percent Latino and Black Applicants by SAT/ACT vs. High School GPA Deciles



Percent First-Generation College Applicants by SAT/ACT vs. HSGPA Quintiles



UC Findings, Part 3

SAT/ACT scores have the most adverse impact on underprivileged students at the top of the UC applicant pool, as measured by high school grades.

Considering SAT/ACT scores alongside high school GPA in the admission process systematically disfavors top applicants from low income, first-generation college, and underrepresented minority families.

Policy implication: SAT/ACT scores are ill-suited to the mission of public universities like UC and can be rationalized only if admissions officers take steps to mitigate unwarranted score bias on the basis of family income, education, and race.

Conclusion

Fairness in testing requires that colleges and universities mitigate the adverse impact of family background on test scores, beyond what can be justified by test validity. UC's holistic process takes account of family income and education in evaluating applicants' SAT/ACT scores, but Prop 209 bars it from considering race.

Race/ethnicity has an independent conditioning effect on SAT/ACT scores among UC applicants, reflecting the growing concentration of Latinx and Black students in California's poorest, most intensely segregated schools.

Policy implication: If UC cannot legally consider the effect of race and racial segregation on test performance, neither should it consider SAT/ACT scores. Race-blind implies test-blind admissions.

Extra Slides

UC Admissions in the Aftermath of Prop 209



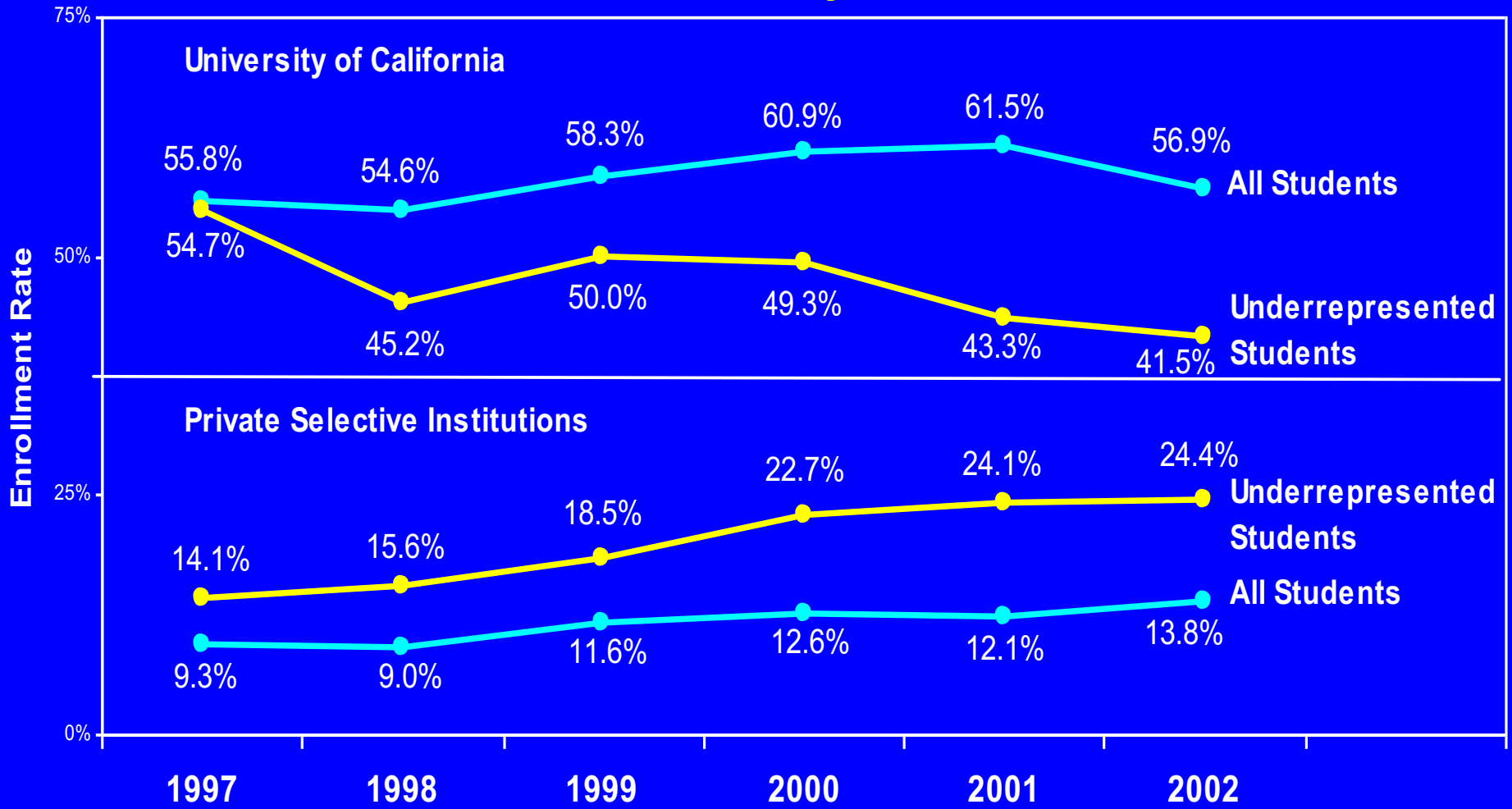
Prop 209 and its impact

- 1995: Regents' resolution SP-1 barring use of race
- 1996: Prop 209 passed
- 1998: Prop 209 takes effect
- Underrepresented minority admissions fall by half at most selective UC campuses

UC policy responses

- School-centered outreach
- Top 4% Plan/ELC
- Holistic review
- Class-based admissions preferences
- Admissions testing: search for alternatives to the SAT/ACT

College Destinations of Top Applicants Denied Admission to Berkeley and UCLA, 1997 to 2002



UC Admissions in the Aftermath of Prop 209



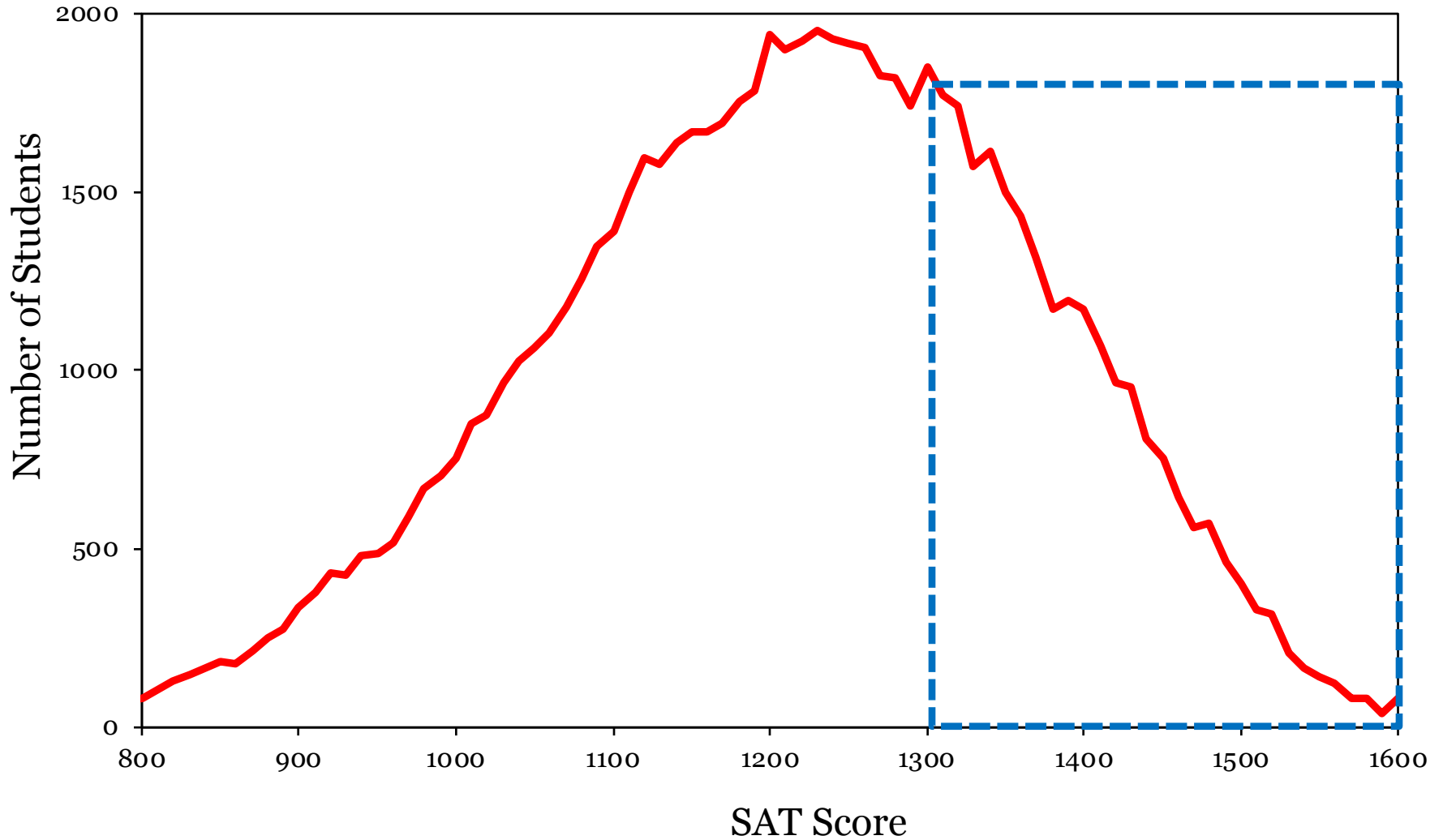
Prop 209 and its impact

- 1995: Regents' resolution SP-1 barring use of race
- 1996: Prop 209 passed
- 1998: Prop 209 takes effect
- Underrepresented minority admissions fall by half at top UC campuses; cascade effect

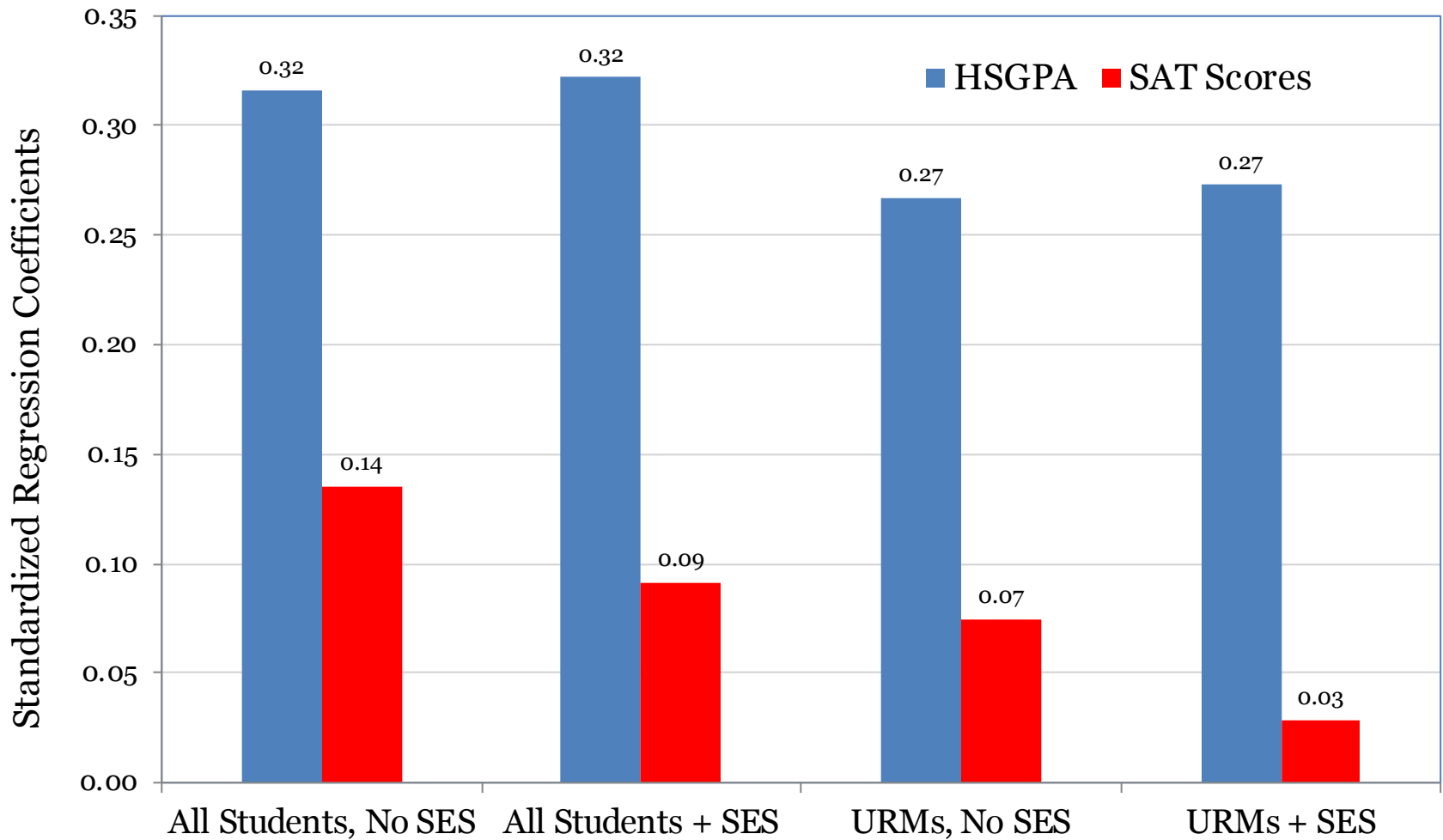
UC policy responses

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Frequency Distribution of Scaled Scores Among California SAT Takers

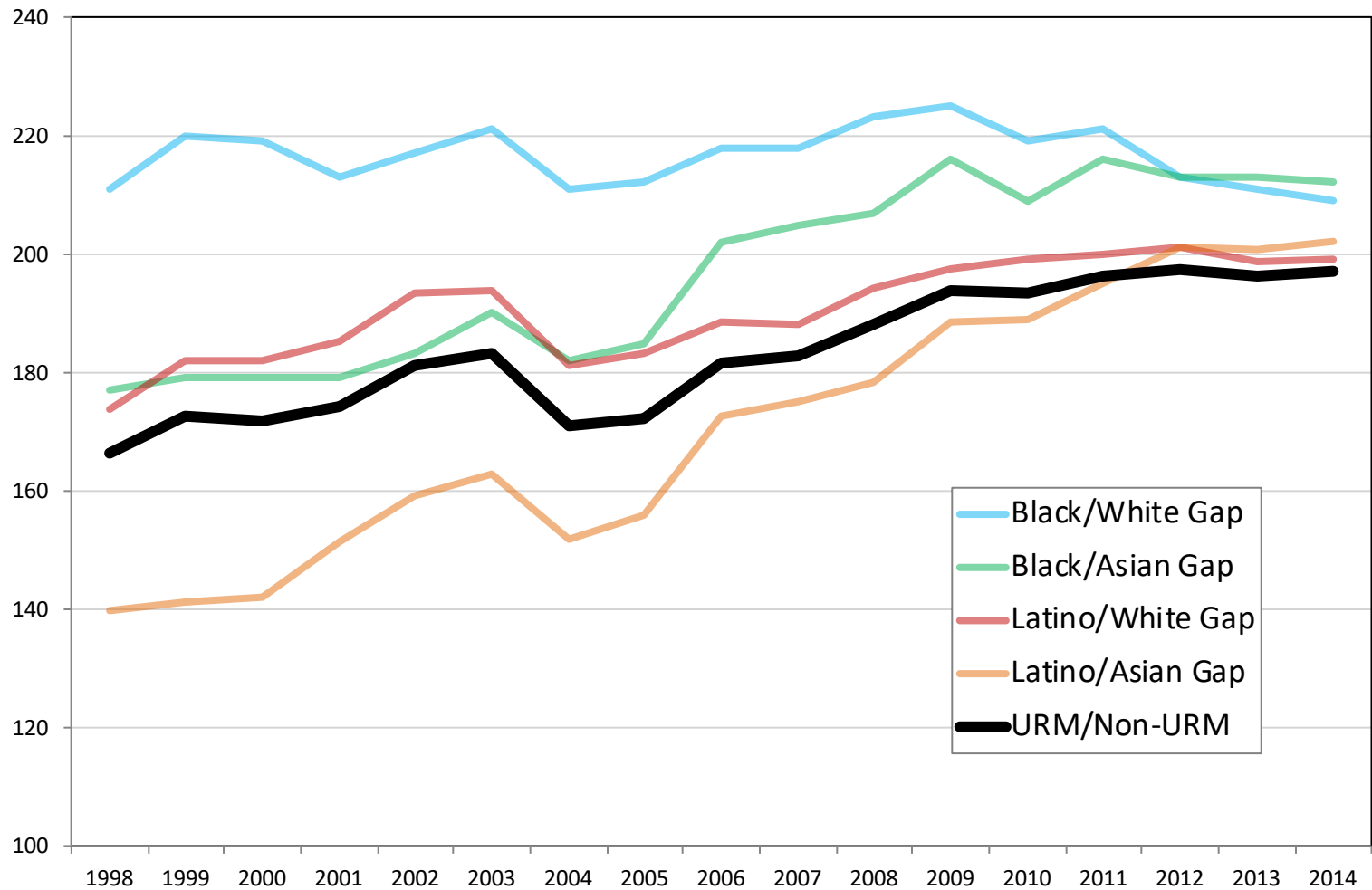


Relative Effect of High School GPA vs. SAT/ACT Scores on Predicted Probability of Graduating from UC within 5 Years



All estimates are statistically significant at .001 confidence level.

Score Gaps Between Racial/Ethnic Categories: California SAT Takers, 1998 to 2014



Source: College Board College-Bound Seniors Reports for California.

Percent of Variance in UCGPA Predicted by HSGPA and Test Scores With and Without Bonus Points for AP/Honors

Regression equation: $UCGPA = \alpha HSGPA + \beta SAT I + \varphi SAT II$

Explained Variance in First-Year UCGPA

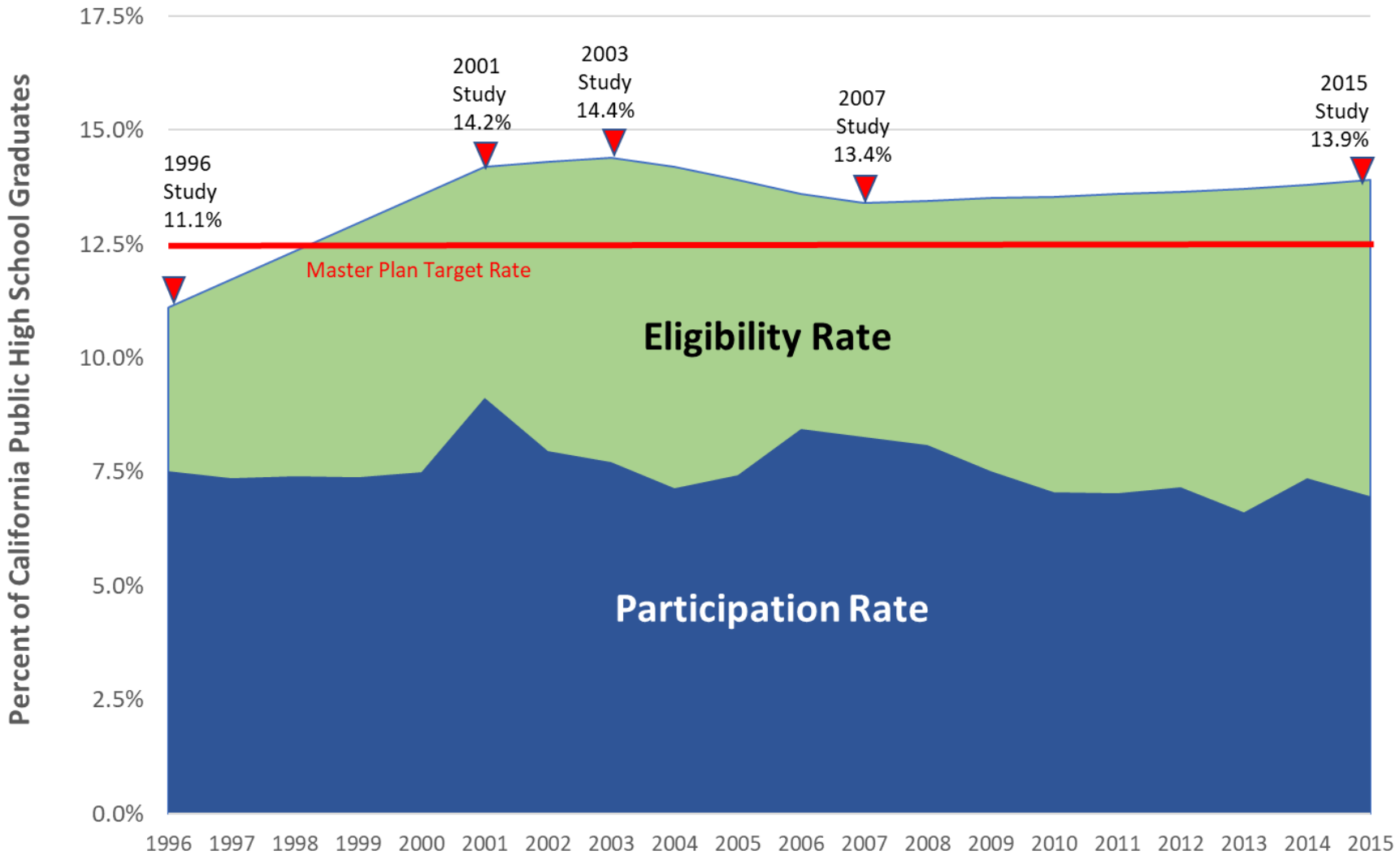
HSGPA Weighting	1998		1999		2000	
	R ²	Rank	R ²	Rank	R ²	Rank
No Bonus Point	21.32%	1	21.46%	1	23.54%	1
Half Bonus Point	20.67%	2	21.10%	2	22.87%	2
Full Bonus Point	19.22%	3	19.82%	3	21.19%	3

Explained Variance in Second-Year UCGPA

HSGPA Weighting	1998		1999		2000	
	R ²	Rank	R ²	Rank	R ²	Rank
No Bonus Point	14.91%	1	13.88%	1	16.37%	1
Half Bonus Point	14.33%	2	13.34%	2	15.79%	2
Full Bonus Point	13.16%	3	12.28%	3	14.65%	3

Source: UC Corporate admissions and longitudinal data for first-time CA resident freshmen entering in Fall 1998, 1999, and 2000. N = 50,472.

UC Eligibility vs. Participation Rates for California Public High School Graduates, 1996 to 2015



Further Reading

Richard C. Atkinson & Saul Geiser. (2009). “Reflections on a Century of College Admissions Tests.” *Educational Researcher*, 38, 9, (December 2009), pp. 665-676.

Saul Geiser. (2017). “Norm-Referenced Tests and Race-Blind Admissions: The Case for Eliminating the SAT and ACT at the University of California.” Research and Occasional Paper Series 15-17. Center for Studies in Higher Education, UC Berkeley. (December 2017).

Achieve, (2018). “What Gets Tested Gets Taught: Cautions for Using College Admissions Tests in State Accountability Systems.” (March 2018). <https://www.achieve.org/college-admissions-tests-accountability>.