

MEMORANDUM

From: Richard Sander, Distinguished Professor of Law, UCLA
To: University of California Board of Regents
Re: “Racial Representation” at the University of California, 1997 and 2017
Date: September 17, 2020

In the debate over Prop 16, one commonly hears the claim that before 1998, when the University of California (UC) was freely allowed to use racial preferences in admissions, African-Americans, Hispanics, and American Indians were much better represented at UC than afterwards. (These three groups are often referred to as the “Underrepresented Minorities,” or URMs.) In my memo of September 4th (which mainly focused on rebutting some recent claims by a UC Berkeley study conducted by Zachary Bleemer), I showed that this claim is certainly not true as a matter of absolute numbers. The number of URM freshmen at UC nearly tripled between 1997 and 2017, and the number of URM students at UC who graduated on time more than quadrupled from the 1997 cohort to the 2015 cohort. (See my Sept. 4 memo [here](#).)

However, absolute numbers do not tell the whole story, for three reasons. First, the size of UC itself has grown substantially over the past generation (enrollment of California freshmen rose 53% from 1997 to 2017). Second, the size of the Hispanic population in California has grown, too, so that Hispanics make up a significantly larger part of the college-age population. And third, California has made progress over the past generation in narrowing K-12 educational achievement gaps between URMs and the rest of the population, so that a larger share and number of URMs have the qualifications to enter UC by any measure. How does the story of URM representation at UC change when we take these factors into account? Answering that question is the purpose of this memo.

Defining the Pool. Some of those discussing racial representation at UC compare the university’s demographics to those of the total California population; others compare them to the population of public high school students. Neither of these metrics are quite right, since UC obviously does not and cannot admit students from the population as a whole or only from public high schools. Instead, it makes sense to define the pool of high school *graduates* from both public and private high schools in California. Since (so far as I can determine), the state does not maintain an accurate count of all high school graduates, I use census data to measure the demographic makeup of California high school graduates.

Since I want to examine how racial representation at UC has changed from the pre-Prop 209 period to the present, I focus on the racial makeup of UC enrollment in 1997 (the last year before Prop 209 was implemented) and 2017 (a representative, recent year). I focus on UC enrollment of in-state freshmen (a large majority of UC students come from California high schools). For enrollment figures, I rely on UC’s own official figures. To measure the pool of high school graduates, as noted above, I use the U.S. Census – specifically, I analyze “microdata” from the Census Bureau’s population censuses. Since 2005, the Census has gathered detailed data on an enormous sample of U.S. residents annually, known as the American Community Survey (ACS). Before that, the Census generated an extract from its decennial census to provide microdata once a decade. Consequently, I use ACS data to estimate the 2017 composition of high school graduates in California (specifically, a large recent ACS microdata sample covering 2014 through 2018). To estimate the 1997 composition of high school graduates

in California, I used the 2000 census microdata, as the closest available year.¹ Since the state’s demography changes gradually, I am confident that the estimates in the tables below are “robust” with respect to the choice of the exact comparison year – that is, the story would not change significantly if we used slightly different years from equally accurate sources.

To capture high school graduates, I measure the number of adults aged 19-22 who have high school degrees. I use this range to capture students old enough to have finished high school, and young enough to represent the young cohort that would be interested in attending UC as an undergraduate. On an annual basis, there are about four hundred fifty thousand new high school graduates in California each year, of whom around 36,000 (~8%) enroll in UC as freshmen. Another 17,000 or so (almost 4% of high school graduates) arrive later as transfer students.

For California high school graduates as a whole, Table 1 shows the racial makeup and each group’s relative representation among UC’s freshmen classes in 1997 and 2017. Because of the simplifying assumptions used to construct the pool of recent high school graduates,² the numbers in columns (c) and (f) should not be taken as precise. However, I am confident that they are close, and the story they tell is clear enough. The numbers in column (c) are measuring the relative likelihood that California high school graduates of different races would become UC freshmen. Thus, Black high school graduates were, in 1997, about half (51%) as likely to become UC freshmen as were California high school graduates taken as a whole. Hispanics were only 40% as likely to become UC freshmen as California high school graduates as a whole. Non-Hispanic whites (Anglos) were very close to parity, while Asian-Americans were substantially overrepresented.

Table 1. Comparing UC enrollment of California freshmen to California high school graduates, 1997 and 2017³

Race	1997 analysis			2017 analysis		
	% HS Grads (a)	% UC Calif. Freshmen (b)	Rel. Rep. (c)	% HS Grads (d)	% UC Calif. Fresh. (e)	Rel. Rep. (f)
Black	7.6%	3.9%	.51	6.4%	4.8%	.75
Hispanic	33.0%	13.2%	.40	46.9%	32.3%	.69
Nat. Amer	0.6%	0.8%	1.2	0.4%	0.5%	1.2
Total URM	41.2%	17.9%	.43	53.7%	37.6%	.70
Anglo	41.9%	39.9%	.95	29.5%	21.5%	.73
Asian	13.9%	37.1%	2.7	13.3%	38.0%	2.9
Other	3.0%	5.1%	1.7	3.5%	2.8%	.80
Total	100%	100%		100.0%	100.0%	

By 2017, these figures had changed materially, in two important respects. URMs were much closer to parity (overall, at about .70), while Anglos had declined, so that Anglo representation was about the same as URM representation. Asian-Americans had become slightly more overrepresented.

In other words, even when we look at the question of racial representation in the simplest terms, without considering group-level differences in academic preparation or achievement,

¹ For both years, I use census weights that adjust for census response rates.

² For example, the use of “2000” census data to estimate 1997 graduates.

³ Sources are the census data described above, and UC data from <https://www.universityofcalifornia.edu/infocenter/admissions-residency-and-ethnicity>

URMs are faring much better in the UC system now than they were in 1997. Moreover, their representation is very similar to the representation of whites.⁴

Adding academic criteria. Of course, everyone concedes (or should concede) that academic criteria are relevant to UC admission. Officially, UC is supposed to admit the “top eighth” of California’s high school graduates, with Cal State drawing from the top third, and the community college system available for high school graduates who meet minimal standards.⁵ Although there is tremendous variation in academic performance within every racial group (and every economic class) in California, there are also substantial differences in the average high school academic performance of the major racial groups. This is true not only of performance on standardized test scores, but it is also true of high school GPAs and any other generally-used measure of academic preparation.

What I attempt to do in Tables 2 and 3 is to take these differences in academic preparation into account in the representation analysis. There are a variety of ways to do this, none of them perfect (since we do not have a comprehensive register of academic performance among, for example, all California high school seniors). In this analysis, I used data from the College Board for 1996 (to capture students entering college in 1997) and 2012, the most recent College Board data I have, to capture general patterns for students entering college in 2017. In both cases, the College Board data are random samples of 100,000 people who took the SAT in the given year. While a great many high school students do not take the SAT, the general racial makeup of test-takers in California is similar to the racial make-up of high school graduates. The data include each student’s verbal and math SAT scores, as well as self-reported high school GPA. I created an index that assigned 250 points each to a student’s verbal and math SAT scores, and 500 points to their self-reported high school grades.

The resulting index shows a substantial gap across racial groups; the median index score for Blacks or Hispanics is exceeded by about 80% of Asian-Americans or whites, and, correspondingly, the median index score for Asian-Americans or whites is exceeded by only about 20% of Blacks or Hispanics. Similar sorts of gaps show up if we examine, for example, reports from the National Center for Education Statistics on high school learning, or even if examine actual pools of UC applicants.

I would be the first to concede that the “Index” I use to generate Tables 2 and 3 is a rough and imperfect measure. As noted, many California high school students do not take the SAT. Moreover, self-reported GPA is less reliable than a school-reported number, and in any case does not take honors classes into account. However – and this is the crucial point – the general patterns that emerge from my index are so similar to patterns from other data sources that I believe reasonable alternate methodologies would yield fairly similar results.

⁴ There is another minor over-simplification in this analysis: the “other race” category. In the census, this mainly includes people who are multiracial – a group that is small but that grew significantly over this period. In the UC data, “other” mostly includes students who declined to state their ethnicity, which might be because they are multiracial but might be for other reasons. Note the proportion of students not providing their race declined from 1997 to 2017. Again, I don’t think that the treatment of this group has a material affect on the conclusions below.

⁵ There is some “wiggle room” in the “top eighth” standard to take into account non-academic factors and ensure that the less-elite UC schools have full enrollment. <https://www.ucop.edu/institutional-research-academic-planning/content-analysis/academic-planning/california-master-plan.html>; https://en.wikipedia.org/wiki/California_Master_Plan_for_Higher_Education.

Let’s then examine Table 2, presenting data for 1997. Columns e, f, and g show the racial representation story when we compare students who were academically among the top half, the top third, or the top eighth of the California high school graduate pool, as estimated with my Index calculations. By these measures, African-Americans were overrepresented, with the overrepresentation becoming more striking as the pool becomes more selective. American Indians were also over-represented, though not by as large a margin as Blacks. Hispanics were underrepresented when we use the “top half” pool, but were at slightly better than parity when we use the “top eighth” pool. Anglos were underrepresented under any of these measures, and Asian-Americans were overrepresented, though not nearly as much as in the “whole pool” analysis of Table 1.

Table 2. Comparing 1997 UC enrollment of California freshmen with California high school graduates, by “academic index” ranking.

Race	Racial makeup of Cal. HS Grads w/academic index in top:			% UC Calif. Freshmen (d)	Relative representation by standard of the pool at the top:		
	Half (a)	Third (b)	Eighth (c)		Half (e)	Third (f)	Eighth (g)
Black	3.2%	2.3%	1.0%	3.9%	1.2	1.7	3.9
Hispanic	21.3%	17.7%	12.5%	13.2%	0.62	0.75	1.1
AmIndian	0.7%	0.6%	0.4%	0.8%	1.1	1.3	2.0
URM tot.	25.2%	20.6%	13.9%	17.9%	.71	.87	1.3
Anglo	51.6%	53.1%	54.9%	39.9%	.77	.75	.73
Asian	17.6%	19.4%	21.9%	37.1%	2.1	1.9	1.7
Other	3.6%	3.9%	5.3%	5.1%	1.4	1.3	1.0
Total	100.0%	100.0%	100.0%	100%			

I highlight the “top eighth” (column g) numbers in red, in both Tables 2 and 3, because this is the most justifiable “pool” for analysis. Since by design, UC students are intended to come from the academic top eighth of California high school students, this is the measure that best captures what we might expect if, for example, all California seniors were equally likely to apply to UC and were judged entirely on academic grounds. I, for one, think it is a good thing that UC has, over the past twenty years, done a variety of things aimed at improving diversity, such as taking individual disadvantage into account, evaluating academic strength in the “local context,” and taking into account personal and leadership qualities. Nonetheless, if the issue is “representation”, it is important to start that discussion with a realistic measure of the key academic pool on which decision-making is supposed to be ultimately grounded.

Between the 1996-2000 measures used in Table 2, and the 2012-2018 measures used in Table 3, Blacks and Hispanics made significant academic gains. For example, note that Black representation in the “top eighth” pool of Table 3 is 2.6% (column c) -- much, much higher than in Table 2 (1.0%), even though the overall proportion of Blacks in the high-school-graduate pool had declined from the late 1990s to the late 2010s. This indicates that Black academic performance in high school improved quite significantly in California over this period (a much bigger improvement than in the national Black population). For Hispanics, the big change over this period was a sharp increase in the high school graduation rate, which rose from 66% in the 2000 data to 88% in 2014-18. This means that Hispanic presence in the overall high-school-graduate pool came much closer to reflecting the Hispanic proportion in the general population. The number of high-achieving Hispanics increased sharply as well.

Table 3. Comparing 2017 UC enrollment of California freshmen with California high school graduates, by “academic index” ranking.

Race	Racial makeup of Cal. HS Grads w/academic index in top:			% UC Calif. Freshmen (d)	Relative representation by standard of the pool at the top:		
	Half (a)	Third (b)	Eighth (c)		Half (e)	Third (f)	Eighth (g)
Black	4.0%	3.0%	2.6%	4.8%	1.2	1.6	1.8
Hispanic	33.4%	27.2%	17.9%	32.3%	1.0	1.2	1.8
Am. Ind.	0.3%	0.3%	0.2%	0.5%	1.7	1.7	2.5
URM tot.	37.7%	30.5%	20.7%	37.6%	1.0	1.2	1.8
Anglo	40.0%	44.0%	48.3%	21.5%	.54	.49	.45
Asian	18.3%	20.9%	25.6%	38.0%	2.1	1.8	1.5
Other	4.0%	4.6%	5.3%	2.8%	.70	.61	.53
Total	100.0%	100.0%	100.0%	100.0%			

As I discussed in my earlier memo, UC implemented several changes after 1997 which improved the diversity of its applicant pool. It greatly expanded its outreach to low-and-moderate-income communities and disadvantaged high schools, did a better job of familiarizing high school students with the “a-g” requirements, and used socioeconomic preferences more thoughtfully and systematically. These changes meant that UC was doing a better job of helping disadvantaged students (who are largely, though by no means exclusively, URMs) qualify and get into UC’s pool of prospective admits.

All these factors combined mean that the relative representation of Hispanics in 2017 (Table 3, columns e, f, and g) is higher than the 1997 levels, and (since Hispanics make up the bulk of the URMs in California) levels of URM representation are also much higher in 2017 than in 1997. Blacks, who had high representation numbers in 1997 due to exceptionally large racial preferences, show in 2017 representation levels similar to Hispanics – an indication that outreach and socioeconomic preferences were driving these levels, rather than special racial treatment.

As in Table 2, the Asian over-representation in Table 3 is much smaller when we take academic credentials into account, and becomes steadily smaller as we consider higher-achievement pools. By the “top eighth” measure, Asians were less overrepresented in 2017 than in 1997, and less overrepresented than any of the URM groups. Very strikingly, Anglos are heavily underrepresented under any of the three comparisons in Table 3; through this frame, at least, they are the standout “disadvantaged” group in the competition for UC spots.

Conclusions. Although many of us tend to reflexively assume that “underrepresented minorities” are severely underrepresented at the University of California, or that Prop 209 damaged the representation of URMs, it is important to examine those assumption carefully, and be specific and concrete about what we mean. I believe this memo demonstrates that the assumptions are wrong in multiple ways:

- 1) By nearly any measure for UC as a whole, the racial representation of URMs was substantially better in 2017 than in 1997.
- 2) When we leave relative academic preparation out of the equation, URMs in 2017 were about as well-represented at UC as whites. When we take academic preparation

even slightly into account, URM students are substantially better represented at UC than are whites. The representation of Anglos declined substantially by any measure between 1997 and 2017.

- 3) This analysis focuses only on entering freshmen. It's important to note that URM graduation rates (especially for on-time graduation, and for students majoring in STEM fields) have improved dramatically since the pre-2009 era. Thus, if we did this analysis for racial representation among graduates, or among STEM graduates, the improvement over time would be even more striking.