Social Reproduction of Inequality: 
The Racial Composition of Feeder Schools 
to the University of California

by

Robert T. Teranishi and Tara L. Parker

This manuscript is currently under review at TCRecord. This draft is being provided to obtain review and comment only and is subject to revision. Please do not cite or distribute.

Robert Teranishi is associate professor of higher education at New York University. His research interests are related to the factors that influence the experiences, outcomes, and representation of racial and ethnic populations within the educational pipeline. Teranishi is a faculty affiliate with the Steinhardt Institute for Higher Education Policy and Senior Research Associate with the Alliance for International Higher Education Policy Studies. Tara Parker is assistant professor of higher education at University of Massachusetts, Boston. Her research interests include the study of educational access and equity, compensatory education, and state policy.
As we mark the 55th anniversary of the landmark *Brown v. Board of Education* decision, the ability for schools to combat racial segregation and send students at equal rates to higher education continues to be challenged. Most recently the United States (U.S.) Supreme Court ruled on two school desegregation cases\(^1\) and limited the ability of school administrators to desegregate our nation’s public schools. These decisions, as well as the 2001 ruling of the U.S. Supreme Court\(^2\) on the ways in which colleges and universities can use affirmative action, challenge the ability of higher education to account for racial diversity as a compelling interest to our society (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999). California, Washington, Florida, Georia, and most recently Michigan face an added challenge to diversifying their most selective institutions following the end of any use of race as a factor in their admissions processes (Hunt, 2005).

These significant changes to long-standing social policy related to access and mobility in higher education are occurring while many public universities are raising admissions standards for high school graduates, becoming exponentially more selective, and serving an increasingly narrower sector of our society. Perhaps one of the most poignant illustrations of how the combination of these issues is affecting access to higher education can be found in the state of California. The Chief Justice Earl Warren Institute on Race, Ethnicity and Diversity at University of California, Berkeley recently released a compelling policy report, *California at the Crossroads: Confronting the Looming Threat to Achievement, Access, and Equity at the University of California and Beyond*. Among the key findings are that the University of California (UC) disproportionately serves the state’s highest-income and best-educated families, while limiting access for low-income students of color. In addition, the study

---

\(^{1}\) *Parents Involved in Community Schools v. Seattle School District #1* and *Meredith v. Jefferson County Board of Education*.

indicates that half of UC’s freshmen come from high schools that educate only one-fifth of California’s public secondary school graduates.

Other research confirms the dismal state of access to the UC (Allen, Bonous-Hammart, & Teranishi, 2002; Chang, 2000; Martin, Karabel, & Jaquez, 2005; Teranishi, Allen, & Solorzano, 2004). These studies point to the state of secondary education in California and its implications for postsecondary preparation, eligibility, and college-going rates, which vary widely for students of different racial backgrounds. Chang (2000) found that unequal resources and opportunities in California’s high schools influenced the likelihood of admission to UC Berkeley. Teranishi, Allen, and Solorzano (2004) took a broader approach by examining college access across public systems in California (community colleges, California State University, and the University of California) and found that access to different sectors of public higher education were associated with racial segregation and inequality in the state’s public high schools. Martin, Karabel and Jaquez (2005) conducted a similar study focusing on how the differences in the socioeconomic status of different secondary schools in California correlated with postsecondary outcomes. These studies identify the extent to which disparities in access and outcomes in California are correlated with school demographics and the relative levels of segregation that exist in California’s public high schools.

The premise for the current study builds upon previous research by providing new perspectives for understanding problems related to racially segregated schools and postsecondary opportunities. While previous studies have focused on the factors associated with attending any public college or university in the state of California (Teranishi, Allen, & Solorzano, 2004), the University of California as a whole (Martin, Karabel, & Jaquez, 2005), or
Social Reproduction of Inequality

a specific campus within the UC system\textsuperscript{3} (Chang, 2000), our research advances understandings of the association between high school segregation and opportunities for attending individual campuses within the most selective sector of public higher education in the state – the University of California. More specifically, this study examines the extent to which there is unevenness in the rate at which individual UC campuses enroll first-time freshmen from high schools that vary by racial composition. Thus, this study examines the relationship between the racial composition of California’s public high schools and the likelihood a school is a source of first-time freshmen at each UC campus. By studying the state of California, and specifically looking at the composition of freshmen at individual campuses within the University of California system, we identify policies and practices that states can target to improve educational opportunities and outcomes.

The research questions that guide this study are:

1) In what ways, if any, are the racial compositions of high schools different for first-time freshmen at different UC campuses?

2) How is the racial composition of high schools that are the source of underrepresented minorities at each UC campus different, if at all, than the racial composition of high schools that are the source of White first-time freshmen?

3) Does the racial composition of public high schools in California have an independent net effect on the likelihood a school will send graduates to the University of California as well as individual UC campuses, controlling for other school characteristics?

\textsuperscript{3}UC Berkeley and UCLA are of particular interest because of their selectivity and national prestige.
This study examines the extent to which access to the University of California and/or its individual campuses is a systemic problem driven by gaps between state policies, the demographic context, and the disparate distribution of resources and opportunities for higher education. While this study specifically examines California, it will also offer implications for other states that struggle to diversify their public institutions in light of a segregated K-12 environment and their higher education policy environment. Thus, to explain how persistent segregation of public schools has affected the freshmen enrollment of students that vary by race/ethnicity in public higher education, we place this issue in a broader context of state and higher education policy and the social conditions of public K-12 education.

BACKGROUND

Prior to the U.S. Supreme Court’s historical Brown decision, racially divided schools not only existed but were sanctioned by law. While some believe that racial segregation was resolved in 1954, many regions of the country are presently exhibit a resegregation of housing and education across racial and ethnic lines (Orfield & Lee, 2006; Orfield & Yun, 1999). Today, de facto segregation maintains racially isolated public schools throughout America. Nationally, Black and Latino students, on average, attend schools where they represent more than 50 percent of the student population. White students are even more racially isolated as they are likely to enroll in schools where 78 percent of the students are also White (Orfield & Lee, 2006).

The implications of racial segregation in schools are well documented in the secondary and postsecondary education literature. Racially isolated schools harm all students but have a greater negative effect on underrepresented minority students because these students are more likely to attend schools that lack important educational resources (Mickelson & Heath, 1999),
such as access to qualified and experienced teachers, adequate facilities and supplies, and
college preparatory curriculum (Orfield & Lee, 2006). Despite the disadvantages of racial
segregation, students in schools with higher proportions of minority students have higher
expectations for degree attainment than those in majority White schools (Frost, 2007). Yet, the
gap in educational resources that are racially divided translates into differences in subsequent
postsecondary educational and employment opportunities (Teranishi, Allen, & Solorzano,
2004). The recent U.S. Supreme Court decisions to deny voluntary desegregation suggest that
educational inequities will likely be preserved, if not further exacerbated.

California is an ideal case for examining the challenges that many other racially diverse
states face related to the shifting landscape of racial segregation in public primary and
secondary schools (Education Trust-West, 2004; Harris, 2004; Oakes, Rogers, Silver, &
Goode, 2004). Public schools in the state are failing to provide students with qualified
teachers, adequate facilities, sufficient textbooks, and a rigorous curriculum (Oakes et al.,
2004). Schools with inadequate instructional materials and under-qualified teachers often
assign faculty without the necessary training to teach various courses and have high teacher
turnover (Harris, 2004). Further, many teachers in segregated schools reported that their
schools were “overcrowded” and “unsafe” (Harris, 2004). While these are concerns for all
students, they are particularly distressing to Black and Latino students who are
disproportionately enrolled in schools with few qualified teachers (Education Trust-West,
2004; Oakes et al., 2004), the fewest resources (Teranishi, Allen, & Solorzano, 2004), and the
fewest opportunities to complete the required course sequence (Education Trust-West, 2004;
Oakes et al., 2004). Oakes and her colleagues (2004) further argue that California schools “do
not even pass the century old requirement of *Plessy v. Ferguson,*” (p. 10) thus reflecting a system of schools that are separate and unequal.

The implications of inadequate college preparation, particularly for students of color, have implications for postsecondary opportunities and outcomes. Researchers at the Education Trust-West (2004) have found that California ranks 49th in the U.S. according to the percentage of high school seniors who immediately enrolled in college and 46th in the percentage of college age population earning a BA (Brown et al., 2006). The problems that exist in the K-12 sector are more pronounced by rigid higher education policies that govern the ways that public colleges and universities admit students. Public Higher education in California is governed by a Master Plan that guarantees admission for state residents to one of three systems: UC, California State University (CSU), and community colleges. The rigidity of the Master Plan is most pronounced in how the state is mandated to sort aspiring college students based on specific academic criteria. For example, public four-year colleges in California require a 15 course sequence in high school for admission. However, too few high schools provide students with the opportunity to take these rigorous courses, with some claiming that California is offering “20th century diplomas in a 21st century economy” (Education Trust-West, 2004).

Even among those students that are able to meet the rigid eligibility requirements to attend the most selective sector of public higher education in the state (University of California), students are not guaranteed admission at any specific campus. As a result, students may apply to a more selective institution within the UC system, like UC Berkeley or UCLA, but can be diverted to campuses that are less selective like UC Riverside or UC Santa Cruz. Therefore, because admission to UC is based on a strict definition of minimum eligibility, and eligibility does not guarantee admission to the campus of choice, students’ preparation and their
ability to be competitively eligible takes on increasing importance. Persistent disparities within primary and secondary schools relating to underpreparation, however, are often overlooked when individual UC campuses consider the eligibility and competitiveness of their applicants. In other words, when campuses make decisions about any particular applicant, it is difficult to account for the extent to which their academic qualifications are affected by inequitable opportunities and limited access to the desired curriculum and resources, which are predicated on their access to and availability of these resources. This is an inherent flaw in the system because, by design, applicants that cannot compete against the pool of other applicants against which they are being considered must be relegated to a less selective UC, even if they meet UC’s minimum eligibility requirements. If an applicant does not meet minimum eligibility requirements, they are sent to another sector of public higher education (e.g., CSUs or community colleges). Consequently, Black and Latino students in California are disproportionately represented in less selective colleges and universities of the same system (Allen et al., 2002).

We assert that the examination of access to higher education needs to be considered in a broader context of demographic changes, inequitable distribution of resources and opportunities in secondary schools, and the federal and state policy environment, which independently and collectively hold important implications. None of these issues are unique to California. For instance, the student composition of many U.S. public high schools, particularly in urban metropolitan areas, is increasingly and disproportionately comprised of students of color (U.S. Department of Education, 2007), along with considerable inequities in school resources and facilities, which continue to plague the effort of public schools to promote student learning and achievement. A deeper examination of both the ways in which diverse
student populations from segregated high schools access higher education, and the types of institutions they have access to, is critical to understanding educational inequality in higher education.

DATA SOURCE AND METHODOLOGY

This study was designed to examine the extent to which racial segregation of public high schools in California is correlated with disparate access for high school graduates to the individual campuses within the University of California system. To accomplish this, we explored the high school source of first-time, full-time freshmen for eight out of nine individual UC campuses\(^4\) for the 2000-2001 academic year. As schools across the U.S. becoming increasingly resegregated (Orfield & Lee, 2006), it is appropriate to continue to examine the relationship between the racial and ethnic composition of schools and patterns of access, participation, and outcomes related to high education.

Data Source

This study utilized data from the California Department of Education (CDE), California Postsecondary Education Commission (CPEC), and The University of California Corporate Student database, which contains information on high schools related to their enrollments, graduates, and college-going rates to public higher education in California (UCs, CSUs, and community colleges). While these datasets have a wealth of information that are useful for studying the state of schools in California, it is important to note that the data were only available at the school-level, which resulted in schools as the unit of analysis. Despite

\(^4\) Currently, there are 10 UC campuses. However, the data used in this study is from the 2000-2001 academic year and does not include UC Merced, which opened in 2005. Our analysis also excluded UC San Francisco because it does not admit undergraduate students.
limitations associated with a single level of analysis, as opposed to multilevel analysis, this study is able to build upon a number of other studies that demonstrate the significance of the relationship between school composition and school performance outcomes in education policy (Allen, Bonous-Hammarth, & Teranishi, 2002; Chang, 2000; Martin, Karabel, & Jaquez, 2005; Orfield & Lee, 2006; Teranishi, Allen, & Solorzano, 2004). It is also useful for examining policies related to admissions, such as how school demographics factor into admission decisions in selective admissions, or more formal policies such as the University of California’s Eligibility in a Local Context (ELC) or Texas’s 10 Percent Plan.

For the purposes of this paper, we included only comprehensive public high schools, which resulted in the exclusion of public secondary schools that were magnets, charters, and continuation schools\(^5\). Also not included in this study are comprehensive private high schools because of a lack of comparable data to the public school data used in this study\(^6\). After controlling for these parameters, the dataset contained information on the 823 comprehensive public high schools in California.

**Measures and Analysis Procedure**

The database includes measurements of school demographics and student outcomes. School demographic variables from CDE included measures of school enrollment (total enrollment, enrollment by grade level, and enrollment by race), student demographics (number of students eligible for the Free or Reduced Meal (FRM) program, average parental education, Limited-English Proficiency (LEP), locale (urban, suburban, and rural), and graduates (number of graduates by race). CDE and CPEC student outcome variables include the number and...
percentage of graduates that were eligible, applied, or attended a UC campus. Data from UCOP, which were merged with the CDE database, include information on the number of first-time, full-time freshmen by race that attended each UC campus.

There were two stages of data analysis employed. First, we conducted descriptive and bivariate correlation to examine the relationship between the racial demographics of high schools and attendance rates of high school graduates, by race, to the University of California and individual UC campuses. The dependent variable in the univariate and bivariate analysis measured the number and percent of high school graduates from each high school by race that attended the UC system or each UC campus in 2000. We report results of the descriptive analysis for two cohorts of schools that varied by racial composition, which was operationalized using Orfield and Lee’s (2006) definition of a racial majority (50-100% White or minority). The 50% threshold was only utilized for reporting descriptive analysis and was not utilized in the multivariate analysis. Based on these criteria, we ended up with 373 schools that were predominately White in 2000, making these schools the largest number of schools with a majority concentration of any single racial group. In the same year, California had 309 high schools that were predominately comprised of URM students. These cohorts of schools provided the foundation for subsequent analysis on attendance rates at UC campuses for high schools that varied in their racial composition. Schools that were predominately comprised of Asian American and Pacific Islander students were excluded from the analysis since there were only 19 such schools in the state\(^\text{7}\), which did not allow for statistically sound comparative analysis with the large numbers of White (n=373) and URM (n=309) schools.

\(^{7}\) Studies that specifically examine schools that serve AAPI students and are situated in AAPI ethnic enclaves within the state of California have been conducted by one of the authors (see Teranishi, 2003; 2004).
Following the univariate and bivariate analyses, we then conducted a series of multivariate analyses to examine the extent to which the racial composition of high schools has an independent effect on access to individual UC campuses, controlling for some key high school characteristics such as the socioeconomic composition of schools (% of students eligible for the Federal Free Meal program), availability and use of Advanced Placement courses (% of total enrollment taking an AP course), availability of credentialed teachers (% of teachers with an emergency credential), and school locale (urban, suburban, or rural). These high school characteristics have also been found to be predictors of college attendance (See Martin, Karabel, & Jaquez, 2005; Kane, 1998; McDonough, 1997). The multivariate analyses consisted of 18 regressions, two for each of the eight UC campuses in the study, and two for the entire UC system. The dependent variable is a continuous variable and measures the proportion of high school graduates that attended each UC campus, as well as an aggregate of the proportion of graduates that attended the UC system.

The independent variables were divided into two blocks. The first block, which was applied to all the regressions, consisted of control variables: average parental education level, average proportion of English Language Proficiency, and school locale. The second block consisted of a variable that measures the racial composition of high schools. Half of the regressions for all samples included a measurement of the proportion of the school enrollment comprised by *White* students and the other half of the regressions consisted of an independent variable that measures the proportion of the school enrollment comprised by *URM* students. We opted to measure the effect of white concentration and URM concentration in separate regressions for two reasons. First, we did not want to include both variables in the same model because of concerns of a high degree of multicollinearity between these two variables. Second,
having both independent variables in separate regressions measures the relative effect of each of them, as opposed to assuming that the directional effect found in one means the opposite effect in another. All independent variables were force entered in the same order with the exception of the two school racial composition measures.

Limitations

There are important limitations due to the data sources and variables included in this study. Because the unit of analysis is at the school level, we were not able to make inferences about the behavior of individual students. Additionally, we were not able to conduct multi-level analysis, which could identify the net effect of high school characteristics controlling for individual characteristics. Accordingly, the reader should be cautious in their interpretation of our results and consider that we are not assessing individual students and instead are focusing on the broader institutional patterns in enrollment between California’s public high schools and individual campuses within the UC system.

There are also important parameters to our data sample. The number of first-time freshmen included in this study is lower than what is reported by campuses because our data only includes those students that originated from the 823 comprehensive public high schools included in our sample. Thus, excluded from our analysis were first-time freshmen that originated from in-state private high schools, as well as students that attended high school out-of-state (domestically and internationally). Another limitation is related to our dependent variable. This study only examines California high school graduates that enroll at a UC campus, rather than studying students that are eligible for, apply to, or are admitted to the
University of California. Each of these successive stages has important distinctions that are important to consider. These limitations do not make our findings less important, but the results should be considered with this in mind.

RESULTS

The results of this study are organized in the following manner. First, we provide profiles for California public high schools, which we grouped by racial and ethnic concentration to serve as the foundation for the subsequent analyses. Then, we compared the composition of first-time freshmen for the UC system and individual UC campuses both for high schools that are predominately comprised of underrepresented minority (URM) students and for high schools that are predominately White. This analysis was done for all students, URM students, and White students separately. Finally, we present results for the multivariate analysis, which identifies the independent effect of racial composition of schools on the composition of first-time freshmen to the UC system as well as individual UC campuses. The results are followed by a discussion of the results, the conclusion, and implications for policy and future research.

Demographic Overview of California Public High Schools

The 823 comprehensive public high schools included in this study were distributed across urban (28.4 percent), suburban (43.5 percent), and rural (28.1 percent) regions of the state. The average rate of eligibility for the Federal Free Meal (FRM) program, a common measure of social class, was 11.9 percent (see Table 1). The average total enrollment per

---

8 Martin, Karabel, and Jaquez (2005) examine how students are “weeded out” at each of these stages. Wilbur (2006) specifically looks at differences in the yield rates of admitted students that choose to enroll at UC campuses. She notes, that “while the offer of admission is an institutional decision, the choice to enroll at a particular college is entirely a student and family decision” (pp. 2).
school across all high schools was 1,852 students (see Table 2). These figures were quite different when compared across schools that varied by racial composition. The following analysis by levels of racial segregation in California’s public high schools is important considering that 84.0% of these schools have either a majority White or majority URM student population.

Table 1.
Selected Characteristics of Segregated High Schools, 2000

<table>
<thead>
<tr>
<th></th>
<th>All High Schools (n=823)</th>
<th>URM Schools (n=309)</th>
<th>White Schools (n=373)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited English Proficiency</td>
<td>13.7%</td>
<td>21.4%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Free Meal Eligibility</td>
<td>11.9%</td>
<td>18.5%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Average Parental Ed Level*</td>
<td>2.8</td>
<td>2.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Urban Locale</td>
<td>234 (28.4%)</td>
<td>125 (40.5%)</td>
<td>69 (18.5%)</td>
</tr>
<tr>
<td>Suburban Locale</td>
<td>358 (43.5%)</td>
<td>90 (29.1%)</td>
<td>221 (59.2%)</td>
</tr>
<tr>
<td>Rural Locale</td>
<td>231 (28.1%)</td>
<td>94 (30.4%)</td>
<td>83 (22.3%)</td>
</tr>
</tbody>
</table>

*1=some high school, 2=high school diploma, 3=some college, 4=college degree, 5=graduate/professional degree

We found that there were 309 high schools that had a majority (50 percent or higher) of their school population comprised of Black and/or Latino students (see Table 2). We identified these schools as underrepresented minority (URM) schools. Slightly more than 60 percent of all Latinos and 48.1 percent of all Blacks in the state attended URM schools, compared to 29.7% of AAPI students and 20.8 percent of White students. URM schools had their largest concentration in urban areas (40.5 percent), with lower representation in suburban (29.1 percent) and rural (30.4 percent) regions of the state. The average total enrollment for URM
Social Reproduction of Inequality

schools was 1,941, which was higher than the average total enrollment of all comprehensive high schools in the state.

Table 2.
Total Enrollment by Race and School Segregation, 2000

<table>
<thead>
<tr>
<th>Race</th>
<th>All High Schools (n=823)</th>
<th>URM Schools (n=309)</th>
<th>White Schools (n=373)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native American</td>
<td>12,840</td>
<td>3,979</td>
<td>6,462</td>
</tr>
<tr>
<td></td>
<td>(30.9%)</td>
<td>(50.3%)</td>
<td>(30.9%)</td>
</tr>
<tr>
<td>Asian American</td>
<td>147,425</td>
<td>43,779</td>
<td>76,887</td>
</tr>
<tr>
<td></td>
<td>(29.7%)</td>
<td>(52.2%)</td>
<td>(29.7%)</td>
</tr>
<tr>
<td>Latino</td>
<td>575,920</td>
<td>348,194</td>
<td>125,471</td>
</tr>
<tr>
<td></td>
<td>(60.5%)</td>
<td>(21.8%)</td>
<td>(60.5%)</td>
</tr>
<tr>
<td>Black</td>
<td>120,227</td>
<td>57,777</td>
<td>40,629</td>
</tr>
<tr>
<td></td>
<td>(48.1%)</td>
<td>(33.8%)</td>
<td>(48.1%)</td>
</tr>
<tr>
<td>White</td>
<td>607,753</td>
<td>126,563</td>
<td>401,902</td>
</tr>
<tr>
<td></td>
<td>(20.8%)</td>
<td>(66.1%)</td>
<td>(20.8%)</td>
</tr>
<tr>
<td>Other</td>
<td>59,784</td>
<td>19,536</td>
<td>30,248</td>
</tr>
<tr>
<td></td>
<td>(32.7%)</td>
<td>(50.6%)</td>
<td>(32.7%)</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>1,523,949</td>
<td>599,828</td>
<td>681,599</td>
</tr>
<tr>
<td></td>
<td>(39.4%)</td>
<td>(44.7%)</td>
<td>(39.4%)</td>
</tr>
</tbody>
</table>

There were 373 schools with a White majority, which was the largest number of schools with a majority concentration of any single race. Sixty-six percent of all White students attended White majority schools, which was a higher proportion than the representation of Black and Latino students in URM schools. The proportion of Blacks and Latinos that attended White schools (33.8% and 21.8% respectively) was higher than the proportion of Whites that attended URM schools (20.8%). More than half (52.2%) of AAPI students in California were enrolled in predominately White high schools. White majority schools were mostly concentrated in suburban (59.2 percent) and rural (22.3 percent) areas and their lowest representation was in urban neighborhoods (18.5 percent). These patterns reflect the propensity
of Whites to reside in suburban communities within the state (Clark, 1998). White schools also had a lower average enrollment (1,827) than URM schools (1,941).

**Distribution of High School Graduates in California Higher Education**

Among California public high school graduates in 2000, 54 percent enrolled in California public higher education institutions; however, there was great unevenness in the proportion that attended community colleges (33.4%), CSUs (13.1%) and UCs (7.6%). Within segments there are also important disparities across race and ethnicity that should be noted. A greater proportion of AAPI (20.3%) and White graduates (12.4%) compared to Latino (4.5%) or Black (3.4%) high school graduates, attended UC campuses. A higher proportion of AAPI high school graduates (16.1%) also attended CSU campuses compared to other racial and ethnic groups, compared to the similar attendance rates at CSU campuses for Latino (10.6%), Black (9.7%) and White (9.5%) California high school graduates. Latino (49.5%) and Black (34.1%) high school graduates had their greatest representation at community colleges, which was much higher than for AAPIs (27.6%) and Whites (28.3%). Thus, the distribution of public high school graduates in California varies greatly across different sectors of higher education in the state, with enrollment of first-time freshmen within segments also varying by race.

**Distribution of Public High School Graduates in the University of California**

The following analysis looks specifically within the UC system, with a particular focus on the relationship between the origin of first-time freshmen and the varying levels of racial segregation that exist across California public high schools. For example, while 44.7 percent of all high school graduates attended high schools with a White majority, graduates from these schools represented 65.3 percent of first-time freshmen (FTF) in the UC system (see Figure 1).
At URM schools, which consist of 43.4 percent of all high school graduates in the state, their share of FTF in the UC system was only 21.7 percent.

Figure 1:
Percentage of High School Graduates and the Percentage of First-Time Freshmen for White and URM Majority Schools, 2000

While trends in disparate access to the UC system by race are apparent, it is also important to examine whether the source of FTF by race also varied depending on the racial composition of their high schools. We found that while 58.3 percent of Blacks and/or Latinos in the state graduated from URM schools, only 44.7 percent of URM FTF came from these schools (Figure 2). Interestingly, while Blacks and/or Latinos had a much smaller proportion of students in White schools (23.9%), their share of FTF in the UC system was disproportionately high at 40.3 percent. Therefore, there was nearly an equal proportion of URM FTF from White schools as URM FTF from URM schools, despite the fact that URM students are mostly likely to attend URM schools and least likely to attend predominately White high schools. A great majority of White students attending the UC system came from White schools (75.6%), while few came from URM schools (14.9%) (see Figure 3).
students from White majority schools therefore, had a greater representation in UC FTF than students from URM schools (regardless of the race of the UC entrants).

**Figure 2:**
Proportion of URM Graduates and URM FTF by High School Composition, 2000

![Bar chart showing proportions of URM Graduates and URM FTF by high school composition in 2000.](chart1)

**Figure 3:**
Proportion of White Graduates and White FTF by High School Composition, 2000

![Bar chart showing proportions of White Graduates and White FTF by high school composition in 2000.](chart2)
Source of First-Time Freshmen for Individual UC Campuses

While there are racial and ethnic disparities that exist across and within public higher education segments as a whole in the state, we were particularly interested in the extent to which these patterns are similar or different for individual campuses within the UC system. For each campus, we examined trends in access for different racial groups and compared them across campuses for students attending schools that varied by different racial and social class compositions. The differences were considerable.

For example, while 44.7 percent of all high school graduates attended high schools with a White majority, graduates from these schools represent 75.0 percent of FTF at UC Berkeley, 73.9 percent at UC San Diego, and 71.8 percent at UC Santa Cruz (see Figure 4). Conversely, while 43.4 percent of all students attended predominantly URM schools, first-time freshmen at UC Berkeley (15.2%), UC San Diego (17.2%), and UC Santa Cruz (18.8%) were extremely low among graduates of URM schools. UC Riverside (33.3%) and UC Irvine (27.1%) had the highest proportion of their FTF that came from schools that were predominately URM. Graduates of URM schools were thus underrepresented at all UC campuses.
The relationship between levels of racial segregation of high schools and the likelihood of graduates attending individual UC campuses was statistically significant at the .05 confidence level for all campuses except for UCLA and UC Davis (see Table 3). For graduates from URM schools, there was a negative relationship with attending UC Berkeley (-.24), UC Santa Barbara (-.23), UC Santa Cruz, (-.18), and UC San Diego (-.09) and a positive relationship with attending UC Riverside (.15) and UC Irvine (.09). There was a statistically significant positive relationship between graduates of predominately White high schools and the likelihood of attending UC Berkeley (.22), UC Santa Barbara (.18), UC Santa Cruz (.12), and UC San Diego (.07), and a significant negative relationship with graduates from White high schools attending UC Riverside (-.11) and UC Irvine (-.10).
### Table 3.
**Correlations between institutional enrollment and racial composition of schools**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>Proportion of URM Enrollment</th>
<th>Proportion of White Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Berkeley</td>
<td>-0.241</td>
<td>0.037</td>
<td>823</td>
<td>0.223</td>
<td>0.041</td>
</tr>
<tr>
<td>UC Riverside</td>
<td>0.145</td>
<td>0.000</td>
<td>823</td>
<td>-0.111</td>
<td>0.001</td>
</tr>
<tr>
<td>UC Los Angeles</td>
<td>0.020</td>
<td>0.571</td>
<td>823</td>
<td>-0.046</td>
<td>0.189</td>
</tr>
<tr>
<td>UC Davis</td>
<td>-0.060</td>
<td>0.056</td>
<td>823</td>
<td>0.042</td>
<td>0.229</td>
</tr>
<tr>
<td>UC Irvine</td>
<td>0.091</td>
<td>0.009</td>
<td>823</td>
<td>-0.102</td>
<td>0.004</td>
</tr>
<tr>
<td>UC Santa Cruz</td>
<td>-0.183</td>
<td>0.000</td>
<td>823</td>
<td>0.116</td>
<td>0.001</td>
</tr>
<tr>
<td>UC Santa Barbara</td>
<td>-0.230</td>
<td>0.000</td>
<td>823</td>
<td>0.176</td>
<td>0.000</td>
</tr>
<tr>
<td>UC San Diego</td>
<td>-0.085</td>
<td>0.014</td>
<td>823</td>
<td>0.074</td>
<td>0.033</td>
</tr>
</tbody>
</table>

**Source of URM First-Time Freshmen for Individual UC Campuses**

While there were disparities in access to UC campuses for all graduates from different segregated schools, the discrepancies disproportionately impacted underrepresented minority students in the state because URM students were more likely to attend URM schools than White students. For example, 63.3 percent of all Latino and/or Black graduates attended a URM school, yet at UC Berkeley, only 33.6 percent of URM FTF originated from URM
Social Reproduction of Inequality

schools (Figure 5). Rather, nearly half (48.9%) of all URM FTF at Berkeley came from White schools. UC San Diego had similar trends with 52.6 percent of URM students coming from White high schools. The campuses with the highest proportion of URM students that came from URM schools were UC Riverside (54.6%), UCLA (53.4%), and UC Irvine (49.6%). We believe that the higher rate URM FTF from URM schools in these institutions is a reflection of the schools from which they draw their students, which are mainly located in Southern California. Los Angeles County, for example, has the highest concentration of racially segregated schools in the state, and is one of the highest concentrations of racially segregated schools in the country, which results in few opportunities for URM students to attend and be admitted from predominately White high schools.

Figure 5:

**URM First-Time Freshmen at Different Campuses by Racial Composition of High Schools**
Source of White First-Time Freshmen for Individual UC Campuses

The source of White FTF was also quite interesting. More than 66 percent of White high school graduates in California came from predominately White high schools, which is much greater than the 20.8% that graduated from URM schools. For every UC campus, the proportion of White FTF from White high schools was greater than the proportion of White graduates from White high schools. UC Santa Cruz has the largest proportion of White FTF from White high schools (81.3%), followed by UC Davis (79.3%), UC Berkeley (79.0%) and UC San Diego (78.4%). Among the Whites that graduated from URM schools, their likelihood of attending some of the UC campuses was quite low. This was particularly true for White FTF at UC Santa Cruz (12.3%), UC Berkeley (12.4%), UC Davis (12.9%), UC San Diego (13.7%) and UC Santa Barbara (14.0%). This trend is similar to what was found among URM students graduating from URM schools.

Figure 6:

White First-Time Freshmen at Different Campuses by Racial Composition of High Schools
Multivariate Analysis

Multivariate analyses tested for the independent effect of the racial composition of high schools sending graduates to the UC system and individual UC campuses, controlling for other school characteristics that have been found to be correlated with high college attendance (i.e., class composition of schools, availability and use of Advanced Placement courses, availability of credentialed teachers, and school locale) (Tables 4 and 5). The systemwide regressions accounted for 54 percent of the variance in the model that included “% enrollment White” and 56 percent of the variance in the model that included “% of enrollment URM.” The separate campus regressions had differences in variance explained by the model, particularly for the regressions that included “% enrollment White” (UC Davis had an R\(^2\) of .07 while UCLA had an R\(^2\) of .41), meaning the model had a better fit for explaining the likelihood of first-time freshmen enrollment for some campuses than for others.

Regression results for the effect of URM enrollment on graduates attending the UC system and individual campuses confirmed patterns found in the bivariate analysis. After control variables were introduced, percent enrollment of URM was a significant negative predictor for attending the UC system (-.21), UC Davis (-.30), UC Berkeley (-.20), UC Santa Cruz (-.22), UC Santa Barbara (-.19), and UC San Diego (-.12). URM enrollment was a significant positive predictor for UC Riverside (.17) and statistically insignificant for UCLA and UC Irvine.

Results from the regression analyses that included “% White enrollment” was significant for four of the eight campuses and was positively correlated with attending UC Santa Barbara (.31) and UC Santa Cruz (.21) and negatively correlated with attending UC Riverside (-.21) and UC Irvine (-.22). The lack of statistically significant results for the “%
White enrollment” variable for the UC system and four of the UC campuses is most likely due to the explanatory power of the control variables, which tended to have a significant and higher effect size in those regressions compared to the regressions that measured for the effect of “% URM enrollment.”
## Table 4:

Predicting UC Attendance (Systemwide and Individual Campuses) for California Public High School Graduates: The Impact of URM Student Composition (with Control Variables)

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>UC System</th>
<th>UCB</th>
<th>UCR</th>
<th>UCLA</th>
<th>UCD</th>
<th>UCI</th>
<th>UCSD</th>
<th>UCSB</th>
<th>UCSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Free Meal Eligibility</td>
<td>-0.023 -05*</td>
<td>-0.004 -04</td>
<td>-0.009 -11**</td>
<td>-0.002 -02</td>
<td>-0.002 -01</td>
<td>-0.002 -02</td>
<td>-0.003 -03</td>
<td>-0.002 -03</td>
<td>0.003 03</td>
</tr>
<tr>
<td>% of Emergency Credentials</td>
<td>0.013 02</td>
<td>0.008 05</td>
<td>0.024 19***</td>
<td>0.007 04</td>
<td>-0.010 -05</td>
<td>0.010 07*</td>
<td>-0.010 -06*</td>
<td>-0.007 -05</td>
<td>-0.013 -09*</td>
</tr>
<tr>
<td>School in Urban Area (not rural)</td>
<td>2.148 15***</td>
<td>0.369 11**</td>
<td>0.070 03</td>
<td>0.383 12**</td>
<td>0.694 17***</td>
<td>0.241 09*</td>
<td>0.091 03</td>
<td>0.012 01</td>
<td>0.030 01</td>
</tr>
<tr>
<td>School in Suburban Area (not rural)</td>
<td>1.853 14***</td>
<td>0.133 04</td>
<td>0.157 07*</td>
<td>0.200 06*</td>
<td>0.122 03</td>
<td>0.407 16***</td>
<td>0.435 17***</td>
<td>0.235 10**</td>
<td>0.015 01</td>
</tr>
</tbody>
</table>

**School Racial Composition**

| % of Enrollment URM                      | -0.049 -21*** | -0.011 -20*** | 0.007 17*** | 0.000 00 | -0.020 -30*** | -0.001 -01 | -0.006 -12*** | -0.009 -19*** | -0.010 -22*** |
| Number of cases (schools)               | 823            | 823            | 823            | 823            | 823            | 823            | 823            | 823            | 823            |
| (Adjusted R²)                           | (56)          | (36)          | (13)          | (41)          | (12)          | (23)          | (35)          | (29)          | (09)          |

* p<.05  
** p<.01  
*** p<.001
Table 5: Predicting UC Attendance (Systemwide and Individual Campuses) for California Public High School Graduates: The Impact of White Student Composition (with Control Variables)

<table>
<thead>
<tr>
<th>Control Variables</th>
<th>UC System b</th>
<th>UCB b</th>
<th>UCR b</th>
<th>UCLA b</th>
<th>UCD b</th>
<th>UCI b</th>
<th>UCSD b</th>
<th>UCSB b</th>
<th>UCSC b</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Free Meal Eligible</td>
<td>-0.061 -13***</td>
<td>-0.015 -13***</td>
<td>-0.010 -12***</td>
<td>-0.005 -04</td>
<td>-0.016 -12**</td>
<td>-0.011 -11**</td>
<td>-0.007 -07*</td>
<td>0.002 02</td>
<td>0.003 03</td>
</tr>
<tr>
<td>% of Emergency Credentials</td>
<td>-0.035 -05*</td>
<td>-0.005 -03</td>
<td>0.024 18***</td>
<td>0.004 02</td>
<td>-0.029 -13***</td>
<td>0.001 01</td>
<td>-0.015 -10**</td>
<td>-0.004 -03</td>
<td>-0.015 -10**</td>
</tr>
<tr>
<td>% of Total Enrollment Taking AP</td>
<td>88.978 66***</td>
<td>17.622 55***</td>
<td>5.505 24***</td>
<td>20.557 62***</td>
<td>5.629 15***</td>
<td>12.095 44***</td>
<td>13.120 48***</td>
<td>10.621 41***</td>
<td>4.054 15***</td>
</tr>
<tr>
<td>School in Urban Area (not rural)</td>
<td>1.191 09**</td>
<td>0.073 02</td>
<td>-0.046 -02</td>
<td>0.262 08*</td>
<td>0.357 09</td>
<td>-0.093 -03</td>
<td>-0.001 00</td>
<td>0.266 10**</td>
<td>0.122 05</td>
</tr>
<tr>
<td>School in Suburban Area (not rural)</td>
<td>1.425 11***</td>
<td>-0.009 -01</td>
<td>0.077 04</td>
<td>0.132 04</td>
<td>-0.024 -01</td>
<td>0.221 09*</td>
<td>0.396 15***</td>
<td>0.397 16***</td>
<td>0.089 04</td>
</tr>
</tbody>
</table>

| School Racial Composition | | | | | | | | | |
| % of Enrollment White | 0.002 -01 | -0.002 -03 | -0.008 -21*** | -0.004 -07 | 0.003 04 | -0.010 -22*** | .001 02 | 0.014 31*** | 0.009 21*** |
| Number of cases (schools) | 823 | 823 | 823 | 823 | 823 | 823 | 823 | 823 | 823 |
| (Adjusted R²) | (54) | (33) | (14) | (41) | (07) | (26) | (34) | (33) | (09) |

* p<.05  
** p<.01  
*** p<.001
DISCUSSION

These findings provide evidence for the extent to which accessibility of the University of California or particular campuses within the UC system for public high school graduates is correlated with the racial composition of the high school from which they graduated, even after controlling for other school characteristics. Our analysis on the relationship between levels of racial segregation in schools and the likelihood a school will enroll a graduate in the UC system show that approximately two-thirds (65.3%) of first-time freshmen originated from White high schools, even though these schools comprised less than half (44.7%) of all graduates of public high schools in the state. Conversely, first-time freshmen that originate from URM schools is disproportionately low (22.1%), considering their equal representation of the proportion of high school graduates in the state (43.4%).

The relative disadvantage of attending a predominately Black or Latino high school is a particular problem for URM students who wish to attend a UC campus since they are much more likely to attend these schools, compared to Whites. In fact, while a low proportion of URM graduates come from White schools (23.9%), they make up a large proportion of the URM first-time freshmen in the UC system (40.3%). However, this does not mean that if URM students attend White schools, they are just as likely as Whites to enroll in the UC system. Rather, the advantage of attending a White school was most evident for White students, and to a lesser degree Latino and Black students. More than three-quarters (75.6%) of White FTF compared to 66.1 percent of White graduates originated from predominately White high schools.
For individual UC campuses, the inequalities were exceptionally pronounced. Some campuses had a very large difference in the proportion of first-time freshmen that came from White schools vs. URM schools. For example, 75.0 percent of UC Berkeley’s students originated from White schools compared to 17.2 percent that came from URM schools. This trend was also particularly significant for UC San Diego. This is quite compelling considering that these campuses are located in or directly next to the top five counties with the highest number of Black and Latino residents in the state (see Teranishi, 2006). UC Riverside and UCLA were much more likely to have their students originate from URM schools. These results were confirmed by the regression analysis, which confirmed the independent effect of levels of racial segregation on the likelihood a student will attend the UC system or a particular campus within the system.

Accessibility to individual UC campuses for Black and Latino students also varied depending on if they attended a URM or White high school. At five of the eight campuses in this study (UCSD, UCB, UCSC, UCSB, and UCD) a greater proportion of URM FTF originated from White schools, as opposed to URM schools where they were most concentrated. The three other campuses (UCI, UCLA, and UCR) had URM enrollment that came from URM schools. White students from White high schools had the largest share of FTF enrollment across the eight campuses in this study. For six of the eight campuses more than 75 percent of the White FTF came from high schools that were predominately White. For UC Santa Cruz, 81.3 percent of White FTF originated from a predominately White high school. These findings exemplify the extent to which the UC system has inequitable access and opportunities available for students that vary by race and high school origin.
CONCLUSION AND IMPLICATIONS

This study examined the structural elements of public secondary schools in California that resulted in embedded privileges and disadvantages related to access to the UC system as well as individual UC campuses. California is the most diverse state with the most diverse students in the nation. However, despite the diversity, neighborhood and school segregation is widespread (Massey & Denton, 1993; Portes & Rumbaut, 1996) and results in the concentration of students in high schools based on race (Orfield, 1993). This study provides a portrait of the ways in which racial inequalities in access to higher education are compounded by the opportunities that vary for students based on the level of racial segregation that exist across public high schools.

The impact of the racial composition of feeder schools for first-time freshmen was not uniform across the eight UC campuses in this study. Thus, while the University of California as a whole may appear to be making gains in providing opportunities for students of color – and this has been reasonable to the extent that is tolerated by its residents – when access for different groups from different high schools to individual campuses are teased out, the discrepancies are quite significant. Students from URM schools should have the same opportunities to enroll in the most selective campuses of the UC as they do the least selective.

The inequities that are particularly pronounced at some UC campuses (UC Berkeley and UC San Diego) mimic those found in many other selective universities throughout the nation. But this problem seems to be “hidden” in many studies behind the more general outcomes of the system. Perhaps the most significant question that this
study raises is centered around the efficacy of a policy that simply holds some UC campuses accountable for goals of equity in the state, yet allows other UC campuses to exclude whole groups of students based on the high school they attended, through no fault of their own. We argue that such educational policy and practice is neither effective nor equitable. In addition to recognizing the uneven distribution and poor representation of FTF that originated from predominately Black and Latino schools throughout the UC system, it is also important to consider the implications of the extent to which FTF are arriving in the UC system from schools that are predominately White, which is disproportionately the case for White FTF. Systemwide, only 15 percent of White FTF came from schools that were predominately comprised of another racial group. This further exemplifies the need for racial diversity in the UC system if White students in the UC system are ever going to get exposure to non-White students. These results speak to the importance of the diversity as a compelling interest for higher education.

Researchers, policymakers, and educational leadership need to be aware of these patterns of inequitable disparities and opportunities if California is to maintain its longstanding commitment to providing educational excellence for its residents. Policies and practices need to be put in place to end the reproduction of inequalities that persist in the California educational pipeline. For example, UC leaders, particularly those from individual campuses where URM high school graduates’ chances of attending are low, should expand and improve outreach to URM schools, in addition to changing how students from these schools are viewed in competitive admissions decisions. Specifically, there is a need for policymakers, UC leaders, and future research to examine admissions policies to understand the ways they inherently privilege one group (those
from White schools) and disadvantage other groups (those from URM schools). In addition, it is quite clear that this problem needs to be addressed through collaboration by both researchers and policymakers in higher education and the K-12 system in order to address both ends of what should be an unsegmented pipeline.

Future research can build on this study in at least two ways. First, it would be fruitful to conduct a similar study utilizing longitudinal student-level data. This data could be merged with the institution-level data through the use of multi-level analysis, which would be able to identify the net effect of high school characteristics controlling for individual characteristics. Second, there is a need, particularly in California, to also consider the high school source and college-going rate of the Asian American and Pacific Islander population. This population has a sizeable representation in the state overall, but has an even greater presence in public higher education. Future research should account for how the postsecondary outcomes of this population are associated with the racial composition of their schools and communities.
References:


