

Water, Water Everywhere and not a Drop to Drink: Higher Education Access and Success for California's Growing Population of Under-Represented Students of Color

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In California and nationally, the underrepresentation of students of color in general and African Americans and Latinos in particular, remains a persistent problem within higher education. Much of what we know about the status of African Americans in the U.S. educational system is gained by understanding the factors that facilitate or restrict student progress in the academic pipeline. The changes currently underway in California—demographic shifts in an era of anti-affirmative action legislation; disparate expenditures on public elementary education compared to other states and relative to the amount of funding allocated to California's prison industry; and the paucity of minority graduates from California's most prestigious colleges and universities—signal ongoing challenges for a large proportion of students of color when it comes to gaining access to higher education.

This study illustrates the representation of students of color at critical junctures in California's educational pipeline. More specifically, it examines high school completion, undergraduate and graduate attendance rates, and degree attainment for different racial/ethnic groups within California's higher education system. In doing so, we aim to provide a critical analysis of the state's educational system and the conditions for access to higher education.

The data presented in this report are drawn from information collected by the California Postsecondary Education Commission (CPEC) and the California Department of Education (CDE) on high school enrollment, preparation, and completion as well as college enrollment across public and private sectors of California higher education. All our calculations are based on data for the academic year 2004-2005.¹ Following a brief overview of the problem, we introduce the conceptual framework for the study. We conclude by presenting our findings regarding the current state of the educational pipeline

for California's growing population of students. Our report updates and draws sizably from an earlier study (Allen, Bonous-Hammarth, and Teranishi, 2002).

1. Overview of the problem

Racial inequality in U.S. higher education has been a stubborn and persistent issue from the moment people of color were begrudgingly granted access to public education. Since the epic 1954 *Brown v. Board of Education* Supreme Court decision overturned the doctrine of "Separate but Equal" and outlawed racial discrimination in the nation's schools, the educational progress of African Americans has been like a song played in several keys. The major chords reveal that Black educational access and attainment has improved dramatically since the *Brown* decision (Allen and Jewell, 1995). Today, African Americans are no longer legally segregated by race in the nation's schools and their enrollment in higher education and their graduation rates have increased exponentially. The minor chords of this song, however, reveal a less harmonious picture. African Americans attend mostly racially segregated high schools and continue to lag substantially behind White and Asian Americans in college enrollment, academic performance and degree attainment.

California personifies this paradox of African American gains in education on many fronts alongside persistent problems—and in some instances, declines, particularly after Proposition 209 was implemented across the state. On July 20, 1995, the UC Board of Regents voted on the passage of SP-1, which officially eliminated affirmative action in the University of California (UC) system. From that point forward race and gender could no longer be considered in the admissions process. This made the UC system the first public university in the U.S. to eliminate affirmative action in college admissions. Following the passing of SP-1, the state initiative Proposition 209 was passed in 1996 by the voters of California, eliminating affirmative action from the admissions criteria, hiring process, and contracts of all public institutions. SP-1 lasted only four years as the UC Board of Regents voted to rescind it;

¹ We acknowledge that this methodology simply allows for a snapshot of the status of California's educational system in 2004-2005. However, for the purposes of this study, we focus our findings mainly in the present, and use the findings to project future outcomes in the absence of intervention and changes to the system.

however, this was meaningless since Proposition 209 was still being enforced and applied in all public institutions, including the University of California.

The significance for the study of California's system of higher education begins with the state's reputation for a higher education system that provides access and educational quality unrivaled by other states. The California educational system consists of thousands of public elementary, middle and secondary schools, 109 community colleges, and 33 public universities. These are complemented by hundreds of private schools, colleges and universities. Despite the comprehensiveness of this educational system, however, there continue to be pronounced inequities in student educational experiences and achievement as well as educational resources and opportunities.

Postsecondary educational inequities are apparent in the extreme racial and ethnic differences in eligibility rates for admission to the state's public university systems, the California Community College (CCC), the California State University (CSU), and the University of California (UC). College eligibility is an important measure of equity, given the California Master Plan's promise of admission to the UC system for the top 12.5 percent of high school graduates, admission to the CSU system for the top 33.3 percent of high school graduates, and admission to the CCC system for all high school graduates, implementing an open-door policy to all able to benefit from an education in the state. In theory, the Master Plan promises college opportunity to all of California's qualified citizens and residents (Douglass, 2000). In reality, the dream of a college education has been little more than that for too many students of color and low-income Californians. Approximately 82 percent of first-time freshmen (FTF) students who attend the University of California system come from public high schools in California. Yet, urban high schools with large enrollments of low socioeconomic status and ethnic minority students are the least likely to be admitted and enrolled in the University of California (Martin, Karabel, and Jaquez, 2003; Teranishi, Allen, and Solórzano, 2004;).

Along these lines, the California Postsecondary Education Commission (CPEC, 2004) estimated that while 14.4 percent of all 2003 high school graduates were fully eligible for admission to the UC system, only 6.2 percent of African American and 6.5 percent of Latino high school graduates were UC-eligible. In

contrast, 16.2 percent of their White and 31.4 percent of their Asian counterparts were fully UC-eligible. A similar disparity in CSU eligibility exists with 47.5 percent of Asian public high school graduates being fully eligible in 2003 versus 34.3 percent for their White peers. Although higher, the 2003 eligibility rate for African Americans remained relatively low, at a rate of 18.6 percent. By comparison, the CSU eligibility rate for Latino high school graduates was 16 percent—only marginally greater than half the statewide average of 28.8 percent.

In many respects, California's failure to provide equitable educational access to African Americans and Latinos is reflective of a larger national crisis with regard to race and educational achievement. For purposes of this report, we will focus on the underrepresentation of African Americans and Latinos in California's colleges and universities. However, recognizing California's cultural diversity and the variety of ways that race affects educational outcomes, we report data for all major racial/ethnic groups, where possible.

2. Analyzing the educational pipeline

It is instructive to consider the steps leading to the successful completion of college as part of a larger, more complex process. Alexander Astin (1993) has used the notion of an "educational pipeline" to convey this idea while Michael Olivas (1986) used the notion of a "river" to convey the same picture. William Bowen and Derek Bok (1998) also opted for the analogy of a river in their highly influential book, *The Shape of the River*. Whether the analogy is organic or inorganic, the intent is to present successful completion of college as part of a larger, multi-faceted, unitary process. Along the way are distinct steps or stages; associated with each stage are expected attitudes, skills, and behaviors that prepare students for the next step in the process. At each of these critical junctures, the pool of students eligible for the next step in the road to a college degree is reduced. In Astin's terminology, the pipeline narrows at each stage and some proportion of students are siphoned out of the flow headed toward college degrees. In Bowen/Bok's and Olivas' terminology, dams, backwaters and tributaries at each critical stage divert some proportion of students out of the mainstream leading to a college degree. In any case, the end result is a substantial decrease in the number of Black and Latino students who complete college and go on to high-status professions.

When examining the progression of students through the educational pipeline, many factors must be taken into consideration. This is particularly the case with regard to Black students. Black students, in the U.S. context, are associated with being at risk since a substantial number experience extreme forms of economic poverty and racial segregation (Chang, Witt, Jones, and Hakuta, 2003). A great deal of research demonstrates the grouping practices implemented at schools where many students of color are being placed into lower ability tracks (Kozol, 2005; Oakes, 1985; Slavin, 1990), have detrimental implications for students participating in these programs. In addition, research has shown that the average Black high school student is more likely to attend schools with large representations of low-income students (Slavin, 1990). While there have been substantial increases in the number of Black students graduating from high school, as a whole, African American students still remain behind in terms of attendance at top-tier research universities across the country (Chang et al., 2003). This is an important matter to reevaluate, given a number of benefits related to academic persistence and success for Black students attending elite institutions (Bowen and Bok, 1998).

Specifically, within the state of California, research demonstrates that access to higher education is associated with segregation and with discrepancies in public high school quality. Secondary schools that are predominantly African American and Latino tend to be poorly resourced when compared to predominately White and Asian schools. The differences in quality of education range from dilapidated buildings, uncredentialed teachers, and outdated textbooks to state-of-the-art classrooms, highly trained teachers, and a range of advanced placement coursework (Kozol, 2005). Thus it is not surprising when looking at the UC system, that students attending schools with large representations of Latinos and Blacks have a lesser chance of being admitted (Teranishi et al., 2004), making the UC an institution more accessible to Asian and White students deriving from highly affluent schools (Martin et al., 2003), and from affluent family backgrounds (UCLA Student Affairs Information and Research Office, 2004).

The educational pipeline is necessary and critical to evaluate, and particularly within the state of California, since it hosts one of the largest and most distinguished public higher education systems in the country (Teranishi et al., 2004). It is particularly

vital that we understand educational attainment as a holistic process, unfolding over the life span, in order to address the question of persistent racial inequities in college attendance and graduation rates among students in California and nationally (Allen, Spencer, O'Connor, 2002).

3. The educational pipeline for students of color in California

Figure 1 shows educational pipeline outcomes for major racial/ethnic groups in California in 2004² (see also Appendix, Table 1). Of the total number of students enrolled in the 9th grade in California, Filipinos, Asian Pacific Islanders, and Whites tended to graduate at the highest rates. Of the students initially enrolled in the 9th grade, 80.3 percent of Filipinos (11,247 of 14,011), 81 percent of Asian Pacific Islanders (37,523 of 46,353), and 79.2 percent of Whites (141,575 of 178,736) were graduating high school. In contrast, African American and Latino students suffered the greatest declines since only 53 percent (25,267 of 47,631) of Blacks and 49.1 percent (121,418 of 247,506) of Latino students graduated high school. While Latino high school graduates outnumbered Blacks (121,418 v. 25,267), the percentage of Blacks graduating high school was higher (49 percent v. 53 percent).

Data reveal a substantial portion of students falling out of the educational pipeline in the transition from high school to college. African Americans and Latinos suffer the greatest decline during this critical transition. Of the students enrolled in the 9th grade, only 32.1 percent (15,298 of 47,631) of Black students and 26.8 percent (66,438 of 247,506) of Latinos went on to attend college. Of the Filipino, Asian Pacific Islander, and White students enrolled in the 9th grade, 69.2 percent (9,691 of 14,011), 65.8 percent (30,505 of 46,353), and 45.1 percent (80,541 of 178,736), respectively, attended college.

While students of all ethnic backgrounds moved through the educational pipeline, the numbers continued to decline. According to our data, the greatest drops occurred for African American and Latino students in terms of baccalaureate, Master's, and Ph.D./professional degree attainment. Of the Black students enrolled in the 9th grade, only 12 percent (5,697 of 47,631) were projected to graduate

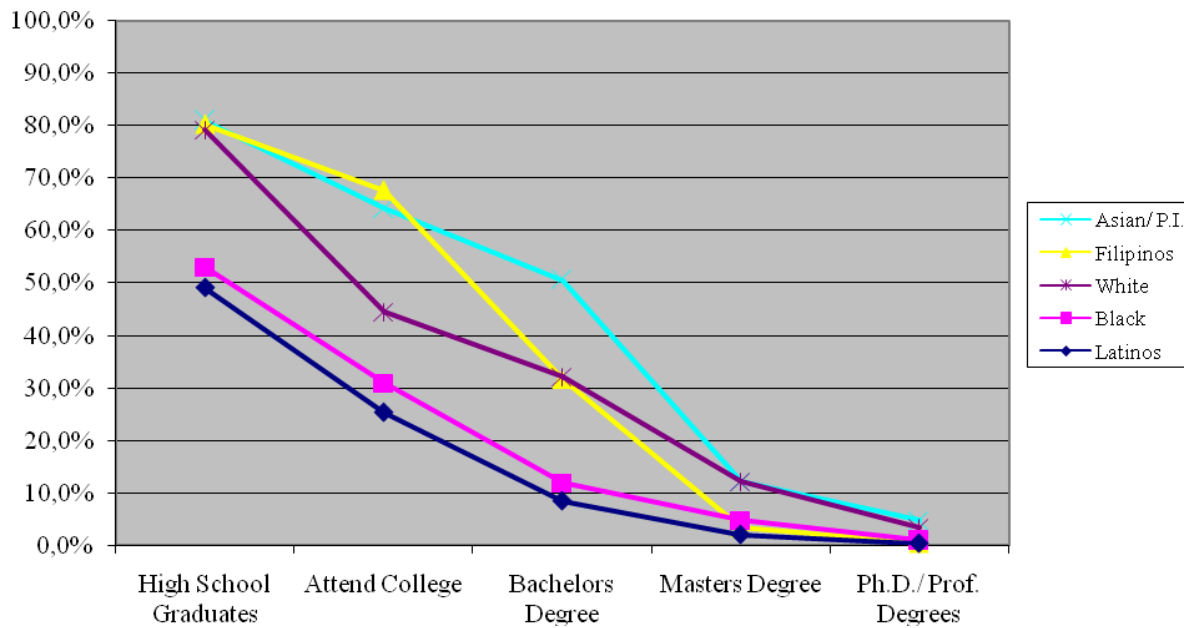
² Due to the complexity and non-predictability of educational attainment for a certain age cohort, calculations for the purpose of this paper are based on attainment rates for all ethnic/racial groups in 2004.

with a B.A./B.S. from a UC, CSU, or independent institution (Association of Independent California Colleges and Universities [AICCU]). However, Latino students experienced the greatest decline since only 8.5 percent (20,972 of 247,506) in the 9th grade obtained a B.A./B.S. Of the Asian Pacific Islanders originally enrolled in the 9th grade, 50.5 percent (23,428 of 46,353) were projected to obtain a B.A./B.S. The numbers of Filipinos and Whites graduating with a B.A./B.S were 31.7 percent (4,437 of 14,011) and 32.1 percent (57,339 of 178,736), respectively. The number of White students obtaining B.A./B.S was greater than the combined number of Latinos, Blacks, Filipinos, and Asian Pacific Islanders earning the same degree (57,399 v. 54,534). When focusing on tertiary education, remarkable disparities are evident—the

Islanders and Blacks four years earlier at the point of high school graduation expanded dramatically to a difference of 38 percentage points in terms of college graduation rates.

When looking at graduate enrollment, data revealed declines such that of the Black students enrolled in the 9th grade in 2004, only 4.8 percent (2,297 of 47,631) graduated with a M.A./M.S. Latino student data demonstrated that only 2.0 percent (5,055 of 247,506) graduated with a M.A./M.S. degree—the lowest percentage when compared to all other ethnic groups. The number of Filipinos, Asian Pacific Islanders, and Whites graduating with a M.A./M.S. was 3.4 percent (477 of 14,011), 12.1 percent (5,627 of 46,353), and 12.1 percent (21,684 of 21,684), respectively. The number of White students

Figure 1: Educational Pipeline Outcomes by Race/Ethnicity in California, 2004



college graduation rate of Asian/Pacific Islanders was more than 4 times higher than the rate of African Americans (23,428 Asian Pacific Islanders v. 5,697 Blacks). This would translate to 50.2 percent of all Asian/Pacific Islander students in high school eventually graduating UC, CSU, and AICCU institutions (note: this calculation includes the Association of Independent California Colleges and Universities’ members only) and obtaining a Bachelor’s degree compared to only 12 percent of Black high school students. What was a 27.5 percentage point difference between Asian/Pacific

graduating with a M.A./M.S. degree are 9.4 times greater when compared to Black students (21,684 v. 2,297), and the number of Asian/Pacific Islanders graduating with a M.A./M.S. are 2.4 times greater when compared to Blacks (5,627 v. 2,297).

At the doctorate and professional degree level, we begin to see the number of students across all ethnic groups dropping substantially, and this was especially the case for African American and Latino students. Only .9 percent (441 of 47,631) of Black students enrolled in the 9th grade are projected to

receive a Ph.D. or professional degree. Moreover, data reveal that only .3 percent (787 of 247,506) of Latino high school students were obtaining a doctorate degree, and this again is the lowest percentage when compared to other ethnic groups. The number of Filipinos, Asian Pacific Islanders, and Whites graduating with a Ph.D. or professional degree was .4 percent (63 of 14,011), 4.8 percent (2,239 of 46,353), and 3.4 percent (6,005 of 178,738), respectively. Asian Pacific Islanders represented the largest portion of students graduating with a doctorate or professional degree (4.8 percent). However, White students were graduating with an increasingly larger share of doctorates. The number of White students graduating with a Ph.D. or professional degree was 1.7 times greater than all major ethnic groups combined (Asian Pacific Islanders, Black, Filipinos, and Latinos). In addition, the number of White students graduating with a doctorate was 13.6 times greater when compared to Black students (6005 v. 441) and 5 times greater when comparing Asian Pacific Islanders with Black students (2,339 v. 441).

3.1. Educational outcomes from elementary school to Ph.D.

Figure 2 uses a slightly different approach to demonstrate the proportion of students of major ethnic/racial groups at each level through the

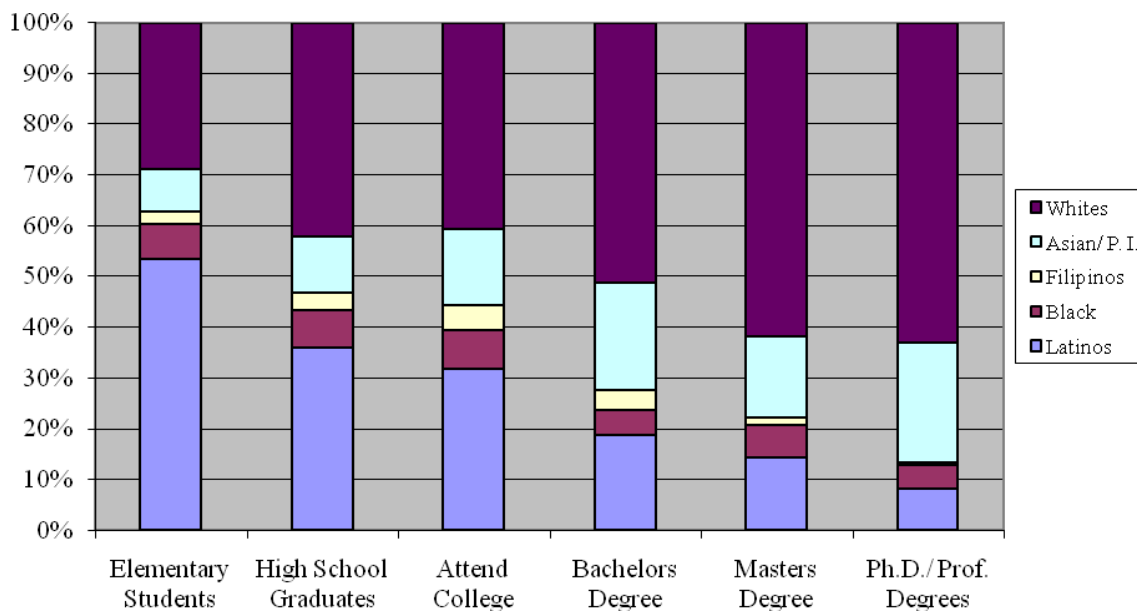
educational pipeline, from kindergarten to the Ph.D./professional degree. Figure 2 reveals that in 2004 Black student enrollment constituted 7 percent (30,753) of the entire elementary school student population within the state of California and Latino students comprised the largest number of students at this level, 54 percent (234,375). Filipinos, Asian Pacific Islander, and Whites comprised 2 percent (10,691), 8 percent (35,660), and 29 percent (126,586), respectively.

When examining data for high school graduates, Black students constituted 7.5 percent of all the high school graduates within the state of California. The two ethnic groups with the largest number of high school graduates were Latino and White students, comprising 36 percent (121,418) and 42 percent (141,575), respectively. Filipinos and Asian Pacific Islanders comprised 3.3 percent (11,247) and 11.1 percent (37,523), respectively.

Of the entire student body attending college after graduating from high school, African American students comprised 8 percent (15,298). Once again, Latinos and Whites constituted the largest number of college attendees, comprising 33 percent (66,438) and 40 percent (80,541), respectively. In addition, Filipinos comprised 5 percent (9,691) and Asian

Pacific Islanders 15 percent (30,505) of all students

Figure 2: Educational Pipeline Outcomes by Race/Ethnicity in California, 2004 (proportional display)



attending college. When examining data regarding students graduating with a B.A./B.S. from a UC, CSU, or independent institution (AICCU), it becomes evident that substantial shifts have occurred. Black student comprised only 5 percent (5,697) of the entire student body graduating with a B.A./B.S. (111,873). Data reveal the substantial decline of Latinos while progressing through the educational pipeline, but this trend becomes more evident at the college level since the Latino student proportion was the third largest and comprised only 19 percent (20,972) of all college graduates. At this stage of the pipeline, Asian Pacific Islanders surpassed Latino students regarding B.A./B.S. attainment levels—a clear shift when examining previous stages of the educational pipeline. Filipinos, Asian Pacific Islanders, and Whites comprised 4 percent (4,437), 21 percent (23,428), and 51 percent (57,339), respectively. Whites and Asian Pacific Islanders now constituted the two largest numbers of students graduating with a B.A./B.S. What was a 22 percentage point difference between Blacks and Whites at elementary school has now substantially increased to a 46 percentage point difference in terms of college graduation.

As we examine data at the graduate level, even greater disparities become obvious. Based on 2004 data, African American students comprised 7 percent (2,297) of all students possibly graduating with a M.A./M.S. from a UC, CSU, or an AICCU. Latino students comprised 14 percent (5,055) and Filipinos 1 percent (477) of all students attaining a M.A./M.S. degree. Asian Pacific Islanders and Whites comprised the largest proportion of students at this level, 16 percent (5,627) and 62 percent (21,684), respectively. In terms of M.A./M.S. attainment, the difference between African Americans and Whites has grown to 55 percentage points.

When analyzing Ph.D. and professional degree attainment, in 2004 Black students comprised only 5 percent of graduates obtaining a Ph.D. or professional degree. Latino and Filipino students comprised 8 percent (787) and 1 percent (63), respectively. Thus, the two ethnic groups with the largest proportion of students obtaining doctoral and professional degrees were Asian Pacific Islanders and Whites, 23 percent (2,239) and 63 percent (6,005), respectively. In terms of Ph.D. and professional degree, the difference between African Americans and Whites has further increased by 58 percentage points, and the difference between Blacks and Asian Pacific Islanders accounted for 18 percentage points.

3.2. Constructing educational pipelines

In this section, we follow Solórzano's approach (1994, 1995) in projecting the outcomes of a synthetic cohort of 100 African American, Latino, Asian Pacific Islanders, and White elementary age students. Our projections represent the status of California's educational system as of 2004. We argue that unless major efforts to improve access to education will be undertaken, our projections can be used to extrapolate future outcomes and disparities between certain ethnic/racial groups.

Figures 3 and 4 show the constructed, standardized educational pipelines for African American/Latino and Asian American/White students, respectively. As previously discussed, significant disparities come to the fore when examining high school graduation rates, since out of 100 students who enrolled in 9th grade, only 53 Blacks and 49 Latinos graduated compared to 81 Asians and 70 Whites. Whereas only 13 African Americans and 11 Latinos completed UC/CSU eligibility requirements, 44 Asian American and 31 White students fulfilled these prerequisites. The data further demonstrated that approximately only half the number of Black and Latinos students persisted to college and attended a California school when compared to their Asian and White peers. Whereas only 31 African Americans and 26 Latinos attended some form of higher education, 64 Asian Americans and 44 Whites enrolled in postsecondary education institutions.

Besides overall attainment rates, the distribution and specific enrollment patterns for each race/ethnicity analyzed are of particular interest. Whereas the vast majority of African American Latino students enrolled in Community Colleges (74 percent of all Black and 73 percent of all Latino college-oriented students enrolled in a California Community College), Asian Americans and White students were more likely to attend a CSU, UC, or AICCU institution. By comparison, only 46 percent of all college-bound Asian Pacific Islanders and 63 percent of their White peers attended a CCC. Beyond this, Blacks and Latinos enrolled at a lower rate at the most prestigious colleges and universities. Only 5 African American and 4 Latino students attended a CSU, in contrast to 12 Asians and 9 White students, respectively. Even fewer were likely to enroll at a UC institution; merely 2 Black and 2 Latino students were enrolling in California's top-tiered public institutions, whereas 20 Asian Americans and 5 White students were enrolling in one of the ten UC

Figure 3: African American and Latino Educational Pipeline in California, 2004

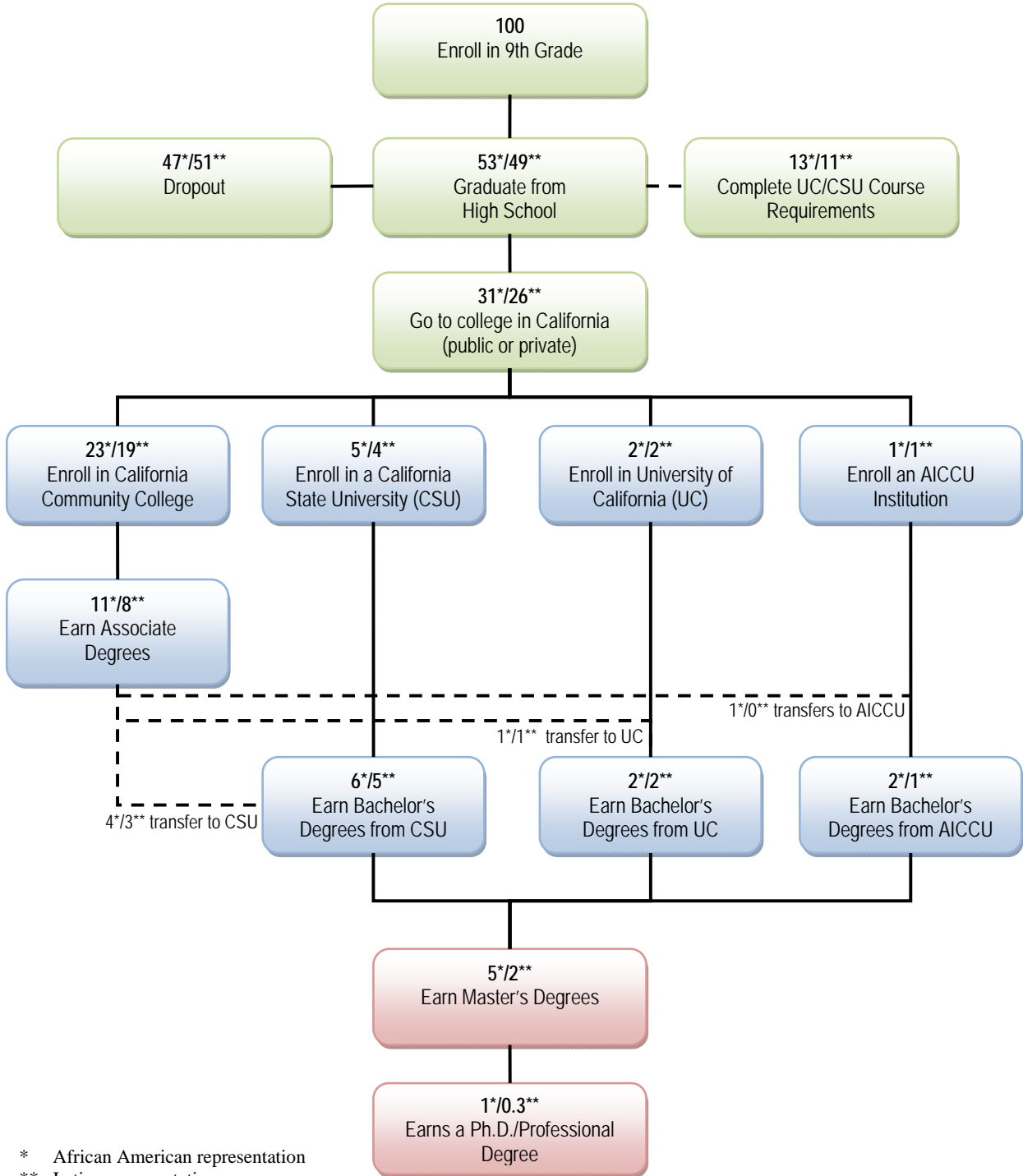
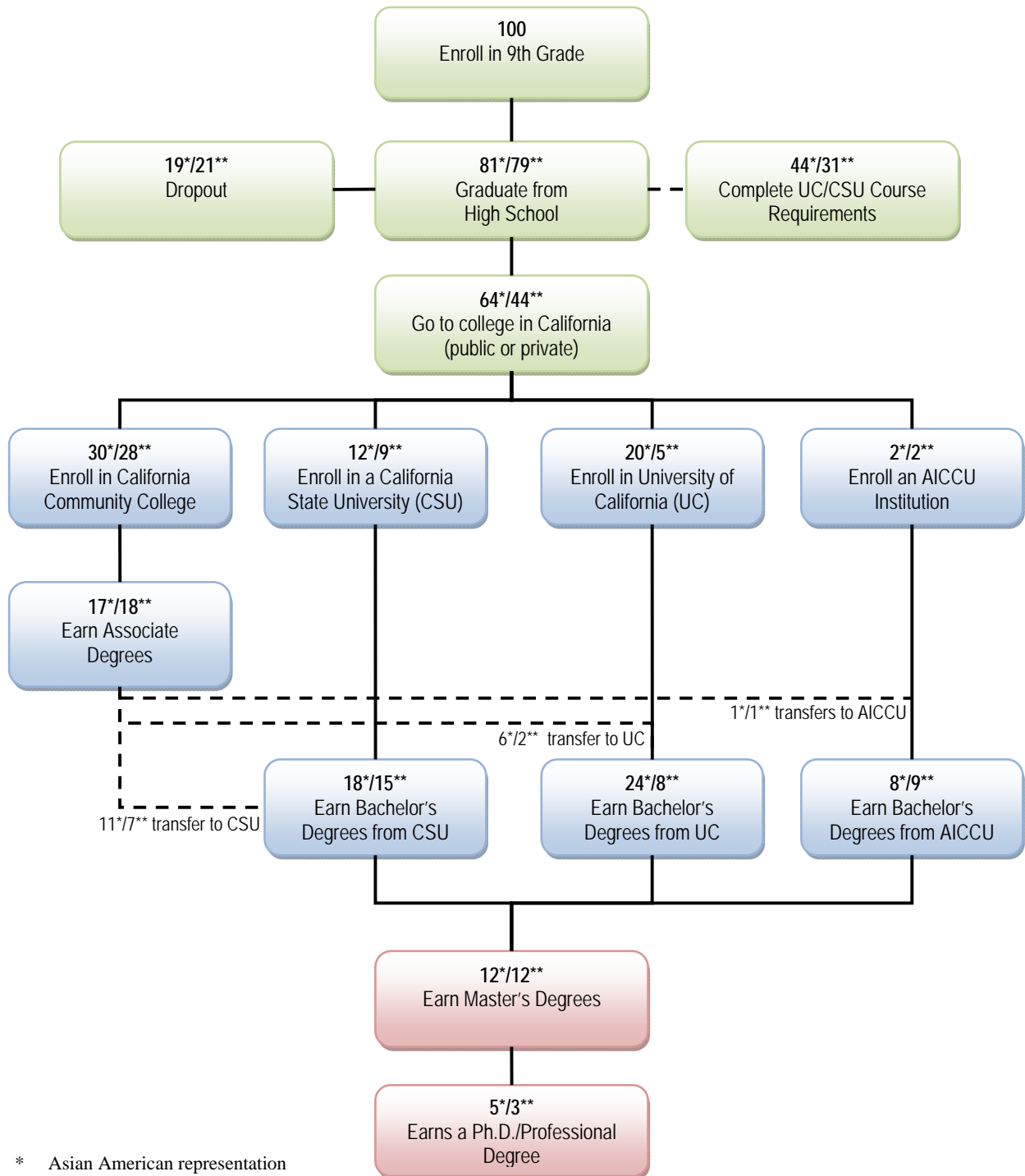


Figure 4: Asian American and White Educational Pipeline in California, 2004



* Asian American representation
 ** White representation

campuses. This translates into more than 31 percent of API and 11 percent of all college-oriented White students enrolling at a UC, whereas only 6 percent of their African American and 7 percent of their Latino college-oriented peers enrolled at these institutions. Consequently, Asian Americans and Whites were more likely to earn a B.A./ B.S. from a UC, since 24 Asian Pacific Islander and 8 White students, respectively, will graduate in contrast to only 2 African American and 2 Latino students. Similar patterns are revealed for CSU and AICCU institutions in 2004: Whereas Asians and Whites graduated with a B.A./B.S. in rates of 18/15 from CSU and 8/9 from AICCU institutions, African Americans and Latinos obtained four-year degrees in rates of 6/5 at CSU and 2/1 at independent institutions, respectively.

On the graduate level, out of 100 students who enrolled in 9th grade, 12 Asian American and 12 White students were likely to obtain a Master's degree, a rate which is six times greater than for Latino students. At the final stage of the educational pipeline, our projection shows that 5 Asian Americans and 3 Whites were likely to receive a Ph.D. or professional degree whereas only 1 African American and less than 1 Latino earns these degrees.

When assessing the holistic picture of the educational system in California presented in this study, several overarching patterns become apparent. First, Latino students experienced the sharpest decline regarding their representation. Their proportion continuously shrunk from a remarkable 54 percent in elementary school to only 8 percent at the Ph.D./professional degree level. White students, in exceptionally reverse order, increased their representation from 29 percent at elementary school to 63 percent on the doctoral level. Asian Pacific Islanders also augmented their proportion when progressing through the educational pipeline, from 8 percent in 1st grade to 23 percent at the highest level of the educational system. African Americans at all levels remained underrepresented, ranging from 7 percent at elementary school to only 5 percent at the Ph.D./professional degree level.

4. Conclusion

We need to understand the process better—as a whole and in stages—by which the many are reduced to a few on the path leading from the earliest years of schooling to college graduation. Indeed the Achievement Council reminds us that “college begins at kindergarten”—or more explicitly, the

foundations for college success are laid during preschool and the first year of school and are built upon through elementary, middle and high school.

The data analyzed in this study reveal further evidence for persistent inequalities in California's educational system. We find that:

“College begins in kindergarten.” Using a river or pipeline analogy, we show that the chronic underrepresentation of Blacks in California higher education is due to historical, deep, systematic, persistent racial inequities in K-12 educational opportunities and restricted flow or access into postsecondary programs.

Early inequities become manifest in disparities for eligibility requirements, particularly within California's most prestigious public schools. In 2004, 25 percent of African American and 22 percent of Latino *high school* graduates are completing course eligibility requirements (fulfilling the A-G requirements) for admission to the University of California and the California State University, compared to 40 percent of Whites, 45 percent of Filipinos, and 54 percent of Asians (CPEC, 2007).

The disparities in eligibility rates are not surprising, when looking at the underpreparation of students earlier in the pipeline. For example, 2004 National Assessment for Educational Progress report card issued by the National Center for Educational Statistics revealed alarming disparities. Whereas 25 percent of White and 28 percent of Asian-American 4th graders are below basic regarding their reading capabilities, 56 percent of Latino and 59 percent of their African American 4th grade peers score below basic in this crucial aptitude. When assessed by social status, the National Center for Educational Statistics even finds that 71 percent of 4th grade students from low-income backgrounds score below basic in reading (NCES, 2007).

“Black and Latino high school graduates do not enroll in college at equal rates.” While close to 53 percent of all African Americans who are enrolling in the 9th grade were projected to graduate high school, only 12 percent of these students eventually graduated from the University of California (UC), California State University (CSU), or an independent institution (AICCU). By contrast, of those enrolled in 9th grade, 81 percent of Asian/Pacific Islander students and 79 percent of Whites graduated high school, with 50 percent of Asian/Pacific Islanders

and 32 percent of Whites graduating from UC, CSU, or AICCU. Overall African American males and females represented 6 percent and 7 percent, respectively, of the total 2004 undergraduate enrollment in California institutions of higher education. By comparison, Black males and females comprised 8 percent of total high school graduates statewide.

Contrasting African American and Latino with White and Asian American standardized educational pipelines, even greater disparities at higher levels become apparent. At the Ph.D./professional degree level, White students represented 63 percent whereas Blacks and Latinos only constituted 5 and 8 percent, respectively. White students earned the largest share of degrees at the highest educational level, resulting in a total representation almost 2 times greater than all other ethnicities combined.

“Higher education in California parallels a racial apartheid system.” Whites and Asians disproportionately enroll at UC, and Blacks and Latinos most often attend CSU and CCC. The University of California system qualifies for designation as an “Asian Serving Institution,” since overall system enrollment (and enrollments on 8 of 10 campuses) exceeds the threshold of 25 percent established to define “Hispanic Serving Institutions.” In the CSU, there are 1 Asian Serving Institution, 10 Hispanic Serving Institutions, and 1 “African American Serving Institution.”³ Furthermore, as of 2004, the majority of degrees earned by African Americans are Associate’s degrees (Associate of Arts or Associate of Science) from California Community Colleges, followed by Bachelor’s degrees (Bachelor of Arts or Bachelor of Science) from the California State University.

These findings substantiate that in California—despite all progress—the underrepresentation of African American and Latino students in higher education remains a persistent problem. Due to the complexity of the educational system, its relationship to the structure of the state and the society at large, and the diverse personal factors that are influential on the individual’s choice when progressing through the different stages of the pipeline, these challenges are likely to remain in short and medium term. Furthermore, the coercive bond between early and

later stages in the educational system adds to the complexity, particularly when considering magnitude effects of incremental alteration in pre- and elementary school on the higher education level. Acknowledging these facts and aiming to increase access for underrepresented students of color, one could attempt to revamp the educational system by starting at the earliest stage and working up through all stages. However, given the stubborn inequalities and harsh realities for students of color in California’s high schools and colleges, alterations must also be undertaken at the highest levels of the educational system need to be undertaken. Only through such a comprehensive effort can an educational system be created that ultimately provides equal opportunity and access for all.

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³ Based on 25% criteria, CSU marginally misses the mark of qualifying as a HSI with total Hispanic enrollment of 21.8% across all CSUs.

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6. Appendix

Table1: Educational Pipeline Statistics for California, 2004
(California Postsecondary Education Commission, 2007; California Department of Education, Data Quest, 2007)

	<u>Elementary Students</u>	<u>9th Grade Enrollment</u>	<u>High School¹ Graduates</u>
Latino	234,375	247,506	121,418
Black	30,753	47,631	25,267
Filipino	10,691	14,011	11,247
Asian/ P.I.	35,660	46,353	37,523
White	126,586	178,736	141,575
	<u>A-G Completers</u>	<u>Attend College² in California</u>	<u>Enroll in a CCC³</u>
Latino	26,327	66,438	50,674
Black	6,344	15,298	11,490
Filipino	5,040	9,691	5,869
Asian/ P.I.	20,411	30,505	14,997
White	55,963	80,541	52,047
<u>Enroll in a UC</u>			
	<u>FTF</u>	<u>Transfers</u>	<u>Total⁴</u>
Latino	4,108	1,734	5,842
Black	818	305	1,123
Filipino	1,475	335	1,810
Asian/ P.I.	9,215	2,745	11,960
White	9,550	4,423	13,973
<u>Enroll in a CSU</u>			
	<u>FTF</u>	<u>Transfers</u>	<u>Total⁴</u>
Latino	10,374	8,325	18,699
Black	2,639	1,716	4,355
Filipino	2,339	1,267	3,606
Asian/ P.I.	5,516	5,288	10,804
White	15,368	12,699	28,067
<u>Enroll in an AICCU</u>			
	<u>FTF</u>	<u>Transfers</u>	<u>Total⁴</u>
Latino	1,282	870	2,152
Black	351	474	825
Filipino	8	26	34
Asian/ P.I.	777	645	1,422
White	3,576	2,203	5,779

	<u>UC BA/BS</u>		
	<u>FTF⁵</u>	<u>Transfers⁶</u>	<u>Total</u>
Latino	3,001	1,662	4,663
Black	763	300	1,063
Filipino	1,328	356	1,684
Asian/ P.I.	8,153	3,117	11,270
White	10,184	4,609	14,793

	<u>CSU BA/BS</u>		
	<u>FTF⁵</u>	<u>Transfers⁶</u>	<u>Total</u>
Latino	5,114	7,311	12,425
Black	1,420	1,635	3,055
Filipino	1,381	1,372	2,753
Asian/ P.I.	3,798	4,479	8,277
White	11,446	14,913	26,359

	<u>AICCU BA/BS Total*</u>	<u>Total Graduates with a BA/BS⁷</u>		
Latino	3,884	20,972		
Black	1,579	5,697		
Filipino	0	4,437		
Asian/ P.I.	3,881	23,428		
White	16,187	57,339		
	<u>UC MA/MS Total</u>	<u>CSU MA/MS Total</u>	<u>AICCU MA/MS Total*</u>	<u>Total Graduates with MA/MS</u>
Latino	600	2,057	2,398	5,055
Black	169	846	1,282	2,297
Filipino	162	315	0	477
Asian/ P.I.	1,217	1,680	2,730	5,627
White	3,709	6,815	11,160	21,684
	<u>UC Ph.D. Total</u>	<u>AICCU Ph.D. Total*</u>	<u>Total Graduates with Ph.D. or Prof. Degree</u>	
Latino	150	134	787	
Black	53	131	441	
Filipino	23	0	63	
Asian/ P.I.	333	264	2,239	
White	1,451	1,176	6,005	

¹ Includes graduates from California public high schools only.

² Includes first-time freshmen students 19 years old and under who entered a California public college or university or AICCU campus from a California high school.

³ Includes first-time students 19 years old and under from California high schools.

⁴ Includes first-time freshmen and Fall-term transfers.

⁵ Reflects the number of degrees conferred by students who were first-time freshmen (not transfers).

⁶ Reflects the number of degrees conferred by students who were transfers (not first-time freshmen).

⁷ Includes undergraduate degree attainment from a CSU, UC, and AICCU campuses only.

Note: *AICCU institutions do not provide selected totals for Filipinos. Filipinos are included in Asian/Pacific Islander ethnic category.

Note: Transfers are only students who transferred from a community college.

Note: Asian/Pacific Islander includes Asian Americans and Pacific Islanders.