## Removing the Roadhlocks:

 Fair College Opportunities For All California StudentsJeannie Oakes, John Rogers, David Silver,
Siomara Valladares, Veronica Terriquez, Patricia McDonough, Michelle Renée, Martin Lipton


# Removing the Roadblocks: Fair College Opportunities for All California Students 

November 2006

Jeannie Oakes, John Rogers, David Silver, Siomara Valladares, Veronica Terriquez, Patricia McDonough, Michelle Renée, Martin Lipton

Univesity of California/All Campus Consortium for Research Diversity (UC/ACCORD)
\&
UCLA Institute for Democracy, Education and Access (UCLA/IDEA)

Copyright © 2006
UC All Campus Consortium on Research for Diversity
UCLA Institute for Democracy, Education, and Access

To access this report online, please visit htpp://www.ucla-idea.org
UC/ACCORD and UCLA/IDEA
1041 Moore Hall, Box 951521, Los Angeles, CA 90095
phone: (310) 206-8725 fax: (310)206-8770 email: idea@ucla.edu

# Removing the Roadblocks: Fair College Opportunities for All California Students 

Jeannic Oakes, John Rogers, David Silver, Siomara Valladares, Veronica Terriquez, Patricia McDonough, Michelle Renée, Martin Lipton

## UC/ACCORD \& UCLA/IDEA

In November of 1996, California voters approved Proposition 209, which prohibited the state from discriminating against or granting preferential treatment to any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting. In the official ballot arguments, 209's authors argued, "It's time to bring us together under a single standard of equal treatment under the law." They advocated that the state make sure that "all California children are provided with the tools to compete in our society."

Asserting that a vote for Proposition 209 was a vote for fairness, proponents argued that "affirmative action" policies had stood in the way of correcting social inequalities, and, in fact, worsened them. They also argued that 209 would remove these barriers and foster equal opportunity and fairness.

Ten years later, the representation of Latino, African American, and American Indian students in the University of California (UC), and particularly at the UC's most selective campuses, has decreased, even as these groups make up a larger share of California high school graduates. Proposition 209 and ending affirmative action have produced neither the "results" nor the opportunities that were promised. California's Latino, African American, and American Indian students have not received the "the tools to compete."

This report extends UC ACCORD and UCLA IDEA's April 2006 California Educational Opportunity Report: Roadblocks to College. That earlier report found that many of the state's high schools provide insufficient college preparatory classes, too few qualified teachers to teach those classes, and too few counselors to guide students along the path to college. Here we look closely at the distribution of these scarce resources. We find that within California's under-resourced education system, resources are not distributed equally: White and Asian students receive considerable college-preparation advantages that African Americans, Latinos, and American Indian students do not.

This uneven distribution of college opportunities cannot be justified by racial differences in educational aspirations. The vast majority of California parents want schools that prepare their children for the state's four-year colleges, and most high school students expect to earn a four-year college degree after finishing high school. Neither can differences in students' "merit" justify the disparate opportunities. Access to challenging curriculum, to well-qualified teachers, and to guidance from counselors is not something students should have to "deserve." Our new analyses of state data, along with five years of UC ACCORD and UCLA IDEA studies, demonstrate that racial preferences in access to core educational resources pervade California's K-12 educational system.

This report addresses the complex competencies and formal requirements for entrance into the campuses of the California State University and the University of California. It reviews the record of low college participation and college eligibility among African American, Latino, and American Indian students, and it examines the K-12 school conditions that contribute to these inequalities. The report concludes with a comprehensive set of policy recommendations for removing roadblocks that unfairly impede the educational progress of Latino, African American, and American Indian students. These are not "pie in the sky" proposals. Rather they are strategies that have been tried in other states, as well as in California districts and schools; they are backed by research.

Throughout the report, we focus on the patterns of access to resources and opportunities in the K-12 system that favor White and Asian students. We also outline a set of new policies needed to remove the roadblocks to college that California's African American, Latino, and American Indian students face.

## Racial Disparities in College Participation

California students, overall, lag behind most other states in the rates at which they enter and complete four-year colleges and universities. Beneath these overall low rates are significant racial disparities. California's Asian American and white high school graduates enroll as freshmen in public four-year institutions at much higher rates than African American or Latino students, and California Bachelors degree's are disproportionately earned across these groups.

State policy contributes to California's overall low rate of four-year college enrollment. According to the state's 1960 Master Plan for Higher Education in California, the state's vast system of community colleges should provide the first two years of college to many of the state's young people, who upon completion of their Associate's degree would transfer to four-year colleges. However, California's low rates of African American and Latino freshman enrollments in the state's four-year universities combined with low rates of transfer from community colleges to four-year universities produce overall low and disparate rates of college completion.

## Racial Disparities in College Eligihility

To be eligible to attend a four-year public college in California, students must graduate from high school having completed a college preparatory curriculum, having maintained a grade point average of at least a " C ," and having taken college entrance exams (i.e. the SAT and the ACT). The University of California and the California State University system require the same set of courses, although the UC system requires higher grades and test scores than the CSU system. Within both systems the more competitive campuses require higher grade point averages and test scores than the less competitive campuses.

Students from different racial and ethnic groups graduate from high school eligible for college at very different rates. Our "College Opportunity Ratio (COR) Indicator" shows these disparities. California's statewide COR in 2004 was 100:69:26, meaning that for every $1009^{\text {th }}$ graders in 2000 , there were 69 graduates and 26 college-ready graduates in 2004 . Beneath this overall ratio are considerable racial disparities. For every 100 of California's Latino, African American, and American Indian $9^{\text {th }}$ graders in 2000 , only 15 graduated in 2004 having passed the courses required for CSU and UC. This is half the rate of Whites ( 33 for every 100) and a third of the rate of Asians ( 50 for every 100 ). Whites and Asians also take the college entrance tests at much higher rates. In fact, African American, Latino, and American Indian students are dramatically underrepresented at every point along the road to meeting UC admission requirements.

## Racial Roadblocks to College Preparation in High Schools

Factors outside of school may contribute to racial disparities in college eligibility and college participation. For example, low-income families often have fewer educational resources at their disposal and, unlike high-income families, may not be familiar with college requirements. However, racial inequalities in schooling-access to K-12 resources, opportunities, and supports-also contribute to unequal college eligibility and participation. These schooling roadblocks can be removed by the actions of policymakers and educators.

The college chances of every student-wealthy or poor, regardless of race or ethnicity-will be affected by whether he or she has access to essential college-going conditions, including access to curriculum, high-quality teaching, counseling, and opportunities for extra academic support. It is important to note that none of these conditions is within the control of the student or his or her family.

As we detailed in our earlier report, fewer than half ( $45 \%$ ) of the state's comprehensive high schools provide all students a sufficiently rigorous academic curriculum. That is, they fail to offer enough college preparatory (A-G) classes to enable all students to take them. California's high school teaching force has neither the time nor the preparation to provide most
students with the high quality teaching they need as they prepare for college. More than $25 \%$ of California high schools routinely assign improperly trained teachers to college preparatory courses overall, and $33 \%$ assign improperly trained teachers to college preparatory math classes. California ranks last among the states in the provision of counselors who can cultivate a college going culture on middle and high school campuses and connect students with the additional academic and social support they need for college preparation. Across the state, the average high school counselor load is 506 students-nearly double the national average. Almost a third (30\%) of California schools suffer from all of these serious college preparation deficiencies.

However, these overall statistics mask quite dramatic racial disparities in students' access to curriculum, teachers, and guidance. Schools with a high concentration of Latino and African American students tend to have fewer of these essential college-preparation resources and opportunities than other schools. Additionally, Latino and African American students tend to have less access to essential college-preparation resources and opportunities in diverse schools than their White and Asian classmates. These roadblocks are not primarily a function of differences in students' effort or achievement; they also result from statewide shortages. When resources and opportunities are scarce, the educational system does not provide them equally to all students.

Fortunately, each of these concrete racial roadblocks can be addressed by research-based policy recommendations. Our recommendations focus on features of schools that can be created and shaped by policy.

## The Curriculum Roadhlock:

## Disparate Access to College Preparatory Courses

Shortages of A-G college preparatory classes and advanced A-G classes are much more likely in schools where African American and Latino students are in the majority. For example, only $30 \%$ of schools enrolling $90-100 \%$ African American and Latino students and $33 \%$ of schools enrolling $50-89 \%$ from these groups have sufficient college preparatory offerings. In contrast, more than half ( $55 \%$ ) of the schools where White and Asian students are the majority offer at least the minimum of $67 \% \mathrm{~A}-\mathrm{G}$ classes.

Students attending these three types of schools-intensely segregated, majority African and Latino, and majority White and Asian—also have very different access to advanced A-G classes, particularly advanced math and science classes. For example, approximately $38 \%$ of the math classes at majority White and Asian schools are advanced, at the same time only about $25 \%$ of the math courses are advanced at schools enrolling a majority of African American and Latino students. These shortages mean that it is far more difficult for students at majority African American and Latino schools to complete the entire sequence of A-G math requirements during four years of high school.

Compounding the inequalities among schools in their A-G offerings, there exists within-school disparities in students' access to the A-G classes. Regardless of the racial composition of schools, Asian and Whites are consistently over-represented in advanced college preparatory classes in math and science. Additional policy barriers make it especially difficult for English Learners to access the A-G curriculum.

As a result of these within-school barriers, African American and Latino students are subjected to a double layer of inequality. First, they are less likely to have access to advanced courses if they attend schools where they are the majority because these schools are likely to offer fewer A-G courses. Second, if they attend majority White and Asian schools where more advanced courses are offered, their chances of being enrolled in these classes are low compared to their White and Asian counterparts.

Even when high schools enrolling large percentages of African American, Latino, and low-income students do have these courses, these schools are more likely to have dysfunctional science labs, insufficient supplies, and a lack of computer hardware and connectivity can hobble their academic programs.

African American and Latino students also report far more often than their White and Asian peers that they don't feel welcomed into and supported in advanced and honors classes at their schools. This difference in perception is not trivial, as students who report feeling welcome and supported in advanced coursework are more likely than others to go onto college.

## 1. Removing the Curriculum Roadhlock: A College Preparatory (A-G) Curriculum for All Students

Enrolling all students in the A-G course sequence would reduce one of the most significant barriers to college-going. By simplifying the high school curriculum and eliminating the distinction between A-G courses and "non A-G" courses in the academic subjects, families and students would be assured that students are taking the "right" courses for college preparation.

Some people may be concerned that enrolling all students in academically challenging courses will harm those with lower achievement or lead to greater levels of dropping out. The evidence is to the contrary. Students enrolled in challenging academic classes score higher on achievement tests than students in less challenging classes; they feel more challenged, have higher aspirations, do more homework, and go on to take more advanced courses later on in high school. It may seem obvious that students in the challenging classes are higher achieving. However, all types of students, whether or not they are among the school's highest achievers, score better when they are in challenging classes. Therefore, California should adopt the following curriculum policies.
1.1 California high schools make the A-G college preparatory course sequence the "default" curriculum.
1.2 California high schools offer multiple pathways for students to complete college preparation, including pathways that align and/or integrate career and technical courses with A-G academic courses. Students who wish to pursue technical careers must simultaneously be able to complete the courses required for UC/CSU admission.
1.3 All California high school programs for immigrants and English Learners include and develop their language competencies and prior education as part of college preparation.
1.4 California high school students may enroll concurrently in appropriate community college courses, particularly those that provide advanced course work in the A-G subjects.
1.5 State high school assessments are aligned to college admissions and placement tests.

## The Teacher Roadhlock:

## Disparities in Access to Fully Qualified Teachers

California's ratio of high school teachers to students is higher than the ratio in any other state: 21 to $1.91 \%$ of California high schools have more students per teacher than the national average. Further, this teacher-student ratio does not reflect the actual class sizes that high school teachers must teach. Classes of 30 to 40 students are common in California high schools. Students have far less access to teachers in very large classes than they do in smaller ones.

Students attending high schools enrolling 90-100\% African American and Latino students are more likely than students in majority white schools to have teachers who are not fully qualified. Having fully qualified teachers is critically important to students' opportunities to prepare for college. Well-qualified teachers provide a wide range of teaching strategies, including the ability to ask higher order questions and respond to students' needs and curriculum goals. Poorly qualified teachers spend more time on drill and practice, while those better prepared can engage students in higher level thinking about content.

Statewide, more than $25 \%$ of all California high schools have severe teacher shortages and mis-assignments in college preparatory courses. At these schools, teachers without the appropriate subject matter qualifications teach more than $20 \%$ of the college preparatory classes. Schools enrolling $90-100 \%$ African American and Latino students are almost 3 times as likely as majority white schools to have significant percentages of mis-assigned teachers teaching A-G courses.

More than $33 \%$ of California high schools routinely assign improperly trained teachers to college preparatory math courses. Schools enrolling $90-100 \%$ African American and Latino students are about $21 / 2$ times more likely than majority white schools to have more than $20 \%$ of their A-G mathematics classes taught by teachers lacking full math certification.

## 2. Removing the Teacher Roadhlock: Fully Prepared Teachers in College Preparatory (A-G) Courses

Knowledgeable, experienced, and fully certified teachers provide instruction that engages students in intellectual work. In diverse communities, quality teaching makes highly valued knowledge accessible to students from diverse backgrounds. The following policies will help ensure that all California high school students have fully prepared teachers.
2.1 All teachers of college preparatory (A-G) courses are fully credentialed in the subject matter of the course. Educationally sound incentives are necessary to recruit and support highly trained teachers in schools with low A-G eligibility rates and low four-year college enrollment rates. These include:

- Lower class sizes.
- Financial "bonuses" to fully qualified teachers.
- Teams of five or more fully qualified teachers hired together to collaborate on increasing college eligibility and college going.
- Schools that provide safe and supportive working environments for teachers.
2.2 All teachers participate in ongoing professional development that prepares them with the content knowledge and pedagogical skills to teach rigorous college preparatory courses to diverse groups of students.
2.3 A specially educated core of "College Opportunity Teachers" provides assistance to the school as it increases the rates at which students graduate ready for four-year universities.


## Time and Support Roadhlocks:

All students require academic support and assistance beyond what is provided during the traditional structure of A-G courses. Well-educated and affluent parents are more likely than others to purchase these supports for their children outside of school. Students in low-income families and from those without college experience depend on what schools provide.

## 3. Removing Time and Support Roadhlocks: <br> A Robust Academic Support Infrastructure

Schools must provide a strong academic support infrastructure to ensure meaningful access to college preparation for all students. They can adopt the following strategies, or others that fit their school context, to ensure that all students have the additional academic support they require.
3.1 Small learning communities ease $9^{\text {th }}$ graders' transition into high school.
3.2 Additional academic instruction and support built into the master schedule replaces "remediation" and repeating subjects.
3.3 Summer school is available to all students, including "bridge" classes that give students a "head start" in rigorous academic classes.
3.4 The senior year includes additional coursework for students to become proficient on college placement tests and/or to begin college-level courses.

## The Counseling Roadblock:

## Disparities in Information and Encouragement

To sustain and fulfill college aspirations, students and their families need adequate information, and they need to receive it early enough for students to complete the necessary prerequisites for college. They need to be encouraged and supported in achieving their college aspirations. These supports need to begin early, because students who fall behind early typically have great difficulty compensating in later years.

African American and Latino students are less likely than other students to receive college information and assistance. They also report far more often than whites and Asians that school adults actually steer them away from attending four-year colleges. Rather than being encouraged to attend four-year colleges, these students were more likely to be encouraged to go to a community college, to a trade or vocational school, or to get a job after high school.

African-Americans and Latinos, and low-income students' access to information is constrained by a lack of fully credentialed counselors and other trained professionals to advise them. California's average ratio of counselors to students is 1 to 506, compared to the national ratio of 284 students for every high school counselor. Although the vast majority of all California schools have student-to-counselor ratios that exceed the national average, students have the least access to counselors in intensely segregated and majority African American and Latino schools.

Here, too, many California families supplement the limited school-provided college-preparation information and guidance with out-of-school support, including tutoring, supplemental academic classes, college counseling, preparation for college entrance tests, and more. Well-educated parents are more likely than others to make up for deficits on the schools' part by purchasing this extra boost for their children outside of school.

# 4. Removing the Counseling Roadhlock: Effective College Counseling 

Students' chances of enrolling in a four-year college are far greater when school adults actively support students and their families through the college choice and admissions process. The following can make such effective college counseling available to all students.
4.1 The student-counselor ratio does not exceed 200:1.
4.2 All counselors have formal training in college counseling.
4.3 Professional development in building a "college-going culture" is provided to all administrators, teachers, paraprofessionals, counselors, and counseling staff.
4.4 "College Knowledge" curriculum tools enable educators to create a college-going culture.
4.5 Students and families are consistently given specific information about their individual progress toward college eligibility.
4.6 Advisory classes and other opportunities enable students to develop supportive relationships with teachers and administrators that are sustained throughout the high school years.
4.7 Local community based organizations engage as partners in providing workshops to families in the college preparation, admissions, and financial aid process.

## Policies to Support Successful College Preparatory High Schools

In addition to removing the roadblocks in California high schools, policy changes are required to prepare students for college preparation in high school, to provide alternative college preparation strategies for students who need them, and to hold schools accountable for college preparation. Because the racial disparities in higher education are also the result of higher education policy, changes are needed in California's postsecondary system as well. Finally, Californians must provide the additional funding that excellent and equitable K -12 and higher education require.

## 5. College Preparatory Culture and Conditions in Elementary and Middlle Schools

5.1 Middle school courses provide rigorous, academic, college preparatory "pipeline" curricula.
5.2 Middle school courses are taught by teachers certified in the subject matter of their courses and who have the pedagogical skills that make rigorous academic content accessible to diverse groups of learners.
5.3 Middle school student-to-counselor ratios do not exceed 200: 1.
5.4 Tutoring and other intensive academic supports ready students for college-preparatory high school courses.

## 6. "Second-Chance" College Preparatory Opportunities Beyond Traditional High Schools

Not all students will be able to navigate the traditional high school successfully-especially in the short term—even with all of the recommendations made in this report. For that small portion, alternative programs should be available that offer a variety of non-traditional ways for students to prepare for college.

## Accountability for College Preparation

The state's primary mechanism for reporting to the public on school quality is the School Accountability Report Card or SARC. Yet few SARCs provide clear and accurate information on students' progress toward college readiness. Furthermore, most SARCs do not present information on learning conditions in a format that allows parents to determine whether their children are receiving quality college-preparatory instruction. California high schools are neither rewarded nor punished for how many incoming 9th graders graduate ready to enter college-level coursework, and the state does not create incentives for high schools to provide a full array of college-promoting learning opportunities.

## 7. The State's Accountahility System Should he Modified to Include all of the Following:

7.1 Information about high school students' college preparation and high school graduates' college participation is regularly collected and analyzed.
7.2 Indicators that 'grade' the quality of college preparation and participation are reported on state and school report cards.
7.3 Parents and community members review the local college preparation report card at annual public forums and participate in holding local schools accountable.

## 8. Revised Higher Education Policies

New higher education policies are required to ensure that the state provides fair college-going opportunities to California's students whose high school success demonstrates their ability to succeed in higher education.
8.1 Eligibility and admissions criteria eliminate the effect of racial preferences in $K$ - 12 education.
8.2 A revised California Master Plan for higher education permits far more high school graduates to enroll in fouryear public universities.
8.3 Students who begin their post-secondary education in two-year institutions are provided the necessary resources to make a fluid and timely transition to a four-year institution.

## 9. Sufficient Funding to Support Fair College Opportunity

Many of these recommendations cannot be adequately implemented without more funding for $\mathrm{K}-12$ education. California currently spends $85 \%$ of the national average for each student in $\mathrm{K}-12$ when regional cost of living differences are taken into account. The 10 states that send the highest proportion of $12^{\text {th }}$ graders to four-year colleges spend an average of $\$ 2,350$ more per student each year than California. In addition to extra funding for K - 12 reforms, more funding is required to increase the number of seats in CSUs and UCs. These are all investments that will yield California significant economic and social returns.

## Conclusion

These recommendations are likely to spark controversy, and not only because they require new resources. Some critics are likely to assert that providing college preparation for all is not a reasonable policy goal. Some may argue that many jobs don't require a college education and that many students lack the motivation or talent for college. However, recent analyses linking college preparation to the future well-being of students and to society as a whole argue otherwise. Today, college preparation readies young people for flexible, adaptable, creative, and powerful adult roles in a knowledge-based society.

Compelling economic arguments exist for expanding college access. Providing all students access to college preparation readies them for the competitive labor market and ensures California's capacity to be vital and relevant in a global marketplace. Jobs that provide the income necessary to support a family increasingly require post-secondary education.

Although arguments that are heard most frequently are economic ones, post-secondary education helps students do more than gain personal financial security and add to the state's economic vitality. Providing all students access to college preparation can enable all California communities to participate robustly in shaping California's civic life. Through postsecondary education, students gain a greater sense of self, intellectual and interpersonal competency, more tolerant views about differences in others, and they also become members of a more informed public.

Prop 209 has failed to deliver on its promise to eliminate racial favoritism and preferences. In many respects, California is farther from offering equal opportunity for all students than it was ten years ago. Worsening inequities, combined with the prohibition of the use of race in university admissions, have steadily widened the gap between California's White and Asian students, on the one hand, and its African Americans, Latinos, and American Indians, on the other. Proposition 209 was not the answer for providing California students with an equal opportunity to realize the universal California dream of a college education but solutions do exist, and they are not beyond our means, our intelligence, or our imaginations.

# Removing the Roadblocks: Fair College Opportunities for All California Students 

Jeannie Oakes, John Rogers, David Silver, Siomara Valladares, Veronica Terriquez, Patricia McDonough, Michelle Renée, Martin Lipton

UC/ACCORD \& UCLA/IDEA

## Introduction

Ten years ago California voters approved Proposition 209, called by its proponents "The California Civil Rights Initiative." Prop 209 added this new language to the California Constitution:

SEC. 31. (a) The state shall not discriminate against, or grant preferential treatment to any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting.

In the official ballot arguments to eligible voters, 209's authors argued, "It's time to bring us together under a single standard of equal treatment under the law." They also wrote:

The only honest and effective way to address inequality of opportunity is by making sure that all California children are provided with the tools to compete in our society.

Let's not perpetuate the myth that "minorities" and women cannot compete without special preferences. Let's instead move forward by returning to the fundamentals of our democracy: individual achievement, equal opportunity and zero tolerance for discrimination against-or for-any individual.

Vote for FAIRNESS [capitals in original] . . not favoritism!
Reject preferences by voting YES on Proposition 209.
The authors of these arguments were then-California Governor Pete Wilson, then-UC Regent Ward Connerly, and Connerly's cochair in the 209 campaign, lawyer Pamela Lewis.

These arguments implied that so-called "affirmative action"-policies that enabled public officials to consider race and gender in decisions about college admission, hiring, or selecting among bids from private firms seeking government contracts-had stood in the way of correcting social inequalities. They also implied that voting yes on 209 would remove these barriers and release social and political pressure that would foster equal opportunity and fairness.

Now, ten years later, we examine whether that has been the case in education. One compelling reason for such an examination is increasing under-representation of Latino, African American, and American Indian students in the University of California (UC), and particularly in the UC's most selective campuses, including UC Berkeley and UCLA.

Figure 1 shows that representation of Latino, African American, and American Indian students in the University of California as a whole has remained relatively the same ( $21 \%$ ) even as representation of these groups among California high school graduates has increased substantially ( $38 \%$ to $46 \%$ ). The gap is even greater at UC Berkeley, where there has been a dramatic decline (from $27 \%$ to $17 \%$ ) in enrollment of these groups of students since the year prior to Prop 209's passage. Hence, there is a
growing gap between those who attend California's K-12 public schools and those who attend its most prestigious public higher education institutions.

Figure 1:
Underrepresented Minorities as a Percentage of CA Public High School Graduates and UC System/UC Berkeley Freshman Admits from CA, 1995-2005


Source: W. Kidder, "Proposition 209 and the Educational Pipeline to the Legal Profession in California (and the Nation)," presentation for the California Bar Association Annual Meetings, Oct. 7th, 2006.

This increasing gap makes clear that Proposition 209 has not had the effect that its advocates promised-that any decline in minority representation from ending affirmative action would be offset by providing all California children with the tools to compete.

This report does not analyze the impact of Prop 209's affirmative action ban on the diversity in the state's public universities. Rather, in light of the measure's civil rights sentiments, it answers the following questions: Has the state provided "all California children" with "the tools to compete in our society"? Has California returned to the "fundamentals of our democracy," specifically "equal opportunity and zero tolerance for discrimination . . ."? Have we eliminated "favoritism"? Have we rejected "preferences"?

The answer to all of these questions is no. Based on our analyses of the state's own data and on new evidence from five years of studies by UC ACCORD and UCLA IDEA, we find that White and Asian students' advantages pervade California's K-12 educational system. At the same time, African Americans, Latinos, and American Indian students face serious race-linked roadblocks.

## Racial Preferences in an Environment of Education Scarcity

In April 2006, UC ACCORD and UCLA IDEA released California Opportunity Report: Roadblocks to College. That report offered analyses of how well California's public schools prepare students for college. It tied the state's low rates of high school graduation and college-going to educational infrastructure problems that obstruct the road to college. It found, in short, many of the state's high schools provide insufficient college preparatory classes, too few qualified teachers to teach those classes, and too few counselors to guide students along the path to college. Put bluntly, California prepares its students for higher education under conditions of severe scarcity of educational resources and opportunities. ${ }^{1}$

This new report looks at the distribution of these scarce resources. It shows that schools with White and Asian majorities tend to offer better resources, conditions, and opportunities for promoting achievement and college-going than other schools. It also finds that, within diverse schools, White and Asian students tend to have far more advantages than African American and Latino students who attend those same schools.

We examine the questions of fairness from two perspectives: public expectations and data. We begin below with public expectations for California's education system.

## An Environment of Universally High Expectations

The vast majority of California parents want schools that prepare their children with the knowledge and guidance needed to attend and succeed in one of the state's four-year colleges. Figure 2 shows large increases in college aspirations among students from all racial and income groups. Today, most high school students expect to go to college after finishing high school.

Figure 2:
Percentage of U.S. 10th Graders Who Expect to Attain a Bachelor's Degree or Higher by Race/Ethnicity


Source: U.S. Department of Education (2004)

Parents from all racial and ethnic communities in California hold high expectations for their children. For example, results from a recent multi-lingual survey of Latino, African American, and Asian parents, displayed in Figure 3, show that most California parents expect their children to obtain at least four-year college degrees, and fewer than $10 \%$ in each group expect their children's schooling to end with a high school diploma. ${ }^{2}$

Figure 3:

## What Level of Education Do You Expect Your Children to Reach?



Source: New American Media, "Great Expectations: Multilingual Poll of Latino, Asian, and African American Parents,"
August 2006, http://news.newamericamedia.org/news/view_custom.html?custom_page_id=315.
However, high academic aspirations are frequently unfulfilled because high schools do not prepare all students to enter and complete college. ${ }^{3}$ Despite very high college expectations, California's Latino, African American, and American Indian studentsparticularly those in schools serving low-income communities of color-face far more roadblocks to college preparation than other students.

## Evidence of Alterable Racial Roadblocks

Our analyses of publicly available data, existing research, and the evidence from schools, districts, and states that have implemented successful reforms all lead us to conclude that the state's high aspirations for education can be met. Assumptions that Californians don't need, don't want, or cannot afford such an education system are not supported by data nor are they worthy of our pursuit. The report documents these conclusions:

- Significant "gaps" exist in college participation among groups of California students.
- These gaps can be traced, in part, to systematic patterns in the distribution of college preparation opportunities, rather than simply the result of students' background characteristics (race, family income, and education levels, etc.).
- Changes in education policy and practice can close these college opportunity gaps.

We begin with a roadmap that documents the complex set of competencies and formal requirements for college in California. The next two sections of this report review California's dismal records of college participation and college eligibility among African American, Latino, and American Indian students. The third section highlights the $\mathrm{K}-12$ school conditions that contribute to these inequalities. The fourth section offers strategies to increase college preparation in predominantly Latino and African American, and American Indian-serving schools. These are not "pie in the sky" proposals. Rather they are strategies that have been tried in California schools and districts; most are backed by research. We conclude by returning to a basic policy question: Why should California remove the racial roadblocks to college that pervade its public schools and policies?

## The Road to College

The road to college begins earlier in students' school careers than many families imagine-as early as elementary school where students begin to acquire the knowledge and skills required for success in college, and where families begin to learn about and plan for college. The roadmap illustrated on Page 17 is meant as a general guide that should be adapted for students who enter the system sometime after kindergarten with limited English fluency or with special educational needs. What is most critical, however, is that the roadmap makes clear that education has a cumulative effect. Gaps in K-12 are exacerbated as students begin higher education. ${ }^{4}$

## Galiforinia's Roadman to Golleye

## By the end of elementary school

- Develop and sustain a positive view of school
- Be re-designated as English Proficient status
- Score at proficiency levels in mathematics and literacy
- Learn about college, understand that financial aid is available, and develop college aspirations


## By the end of middle school

- Score at proficiency levels in mathematics and literacy
- Complete pre-requisites for high school college-preparatory curriculum (e.g., pre-algebra or algebra, introductory foreign language)
- Get good grades
- Know the requirements for college admission, including courses and entrance tests
- Plan high school schedule
- Learn about the cost of college and about available financial aid


## High school

- Grade 9 \& 10: Take college-preparatory (A-G) courses \& pass with a C or better
- Grades 9-12: Participate in extra-curricular and community service activities, assuming leadership in some
- Grade 10: Pass California's High School Exit Exam
- Grade 10: Learn about college entrance tests and prepare to take them
- End of grade 10: Pass with C or better up to 8 college-preparatory (A-G) courses
- Grade 11: Pass additional college preparatory courses (A-G) with C or better
- Grade 11: Begin making college choices
- Grade 11: Take required college entrance tests
- Grade 12: Apply for college
- Grade 12: Apply for financial aid
- End of Grade 12: Finish the entire sequence of at least 15 college prep (A-G) classes, following the university-specified pattern among 7 subject areas, and passing with $\mathbf{C}$ or better
- Graduate from high school eligible and ready for college


## Disparities in College Participation

California's African American, Latino, and American Indian students have a hard time following the roadmap to college. Although California students, overall, lag behind most other states in the percentage of students who enter and complete four-year colleges and universities, ${ }^{5}$ this low ranking is largely due to the very low rates of college participation among African American, Latino, and American Indian students.

## Disparate Degree Attainment

California bachelor's degrees are disproportionately earned across racial and ethnic groups. Asians are significantly overrepresented and African Americans and Latinos are significantly underrepresented among California's college graduates. Figure 4 shows this pattern, comparing the population of California eighth graders in 1995 with those receiving California bachelor's degrees 10 years later, in 2005.

Figures 4 and 5:
1995 8th Graders Compared to 2005 Bachelor's Degree Recipients from California's Public Post-Secondary Institutions


Racial Composition of BA Recepients in 2005:
*Other includes students who identified as either "Other," "Non-Resident," or provided "No Response."
Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/ California Postsecondary Education Commission, online data, www.cpec.ca.gov

In 2004, California had the largest discrepancy ( $22 \%$ ) of any state between the percentage of undergraduate college completers (all degree levels) who are African American and Latino and the percentage of African-American and Latino 18 -year olds. ${ }^{6}$

## Disparate Four-Year College Enrollment

Only one of every eight California 9th graders who were enrolled in California public schools in the fall of 2000 enrolled as a freshman at California State University (CSU) or University of California (UC) campuses four years later. In 2004, California sent a smaller proportion of its students to four-year colleges than all states but one-Mississippi. In comparison to California, New York and Massachusetts sent twice the proportion of high school seniors to four-year colleges. ${ }^{7}$

These low overall rates of four-year college enrollment mask substantial college enrollment disparities among California's ethnic students. As Figure 6 shows, in 2005, California's Asian and White high school graduates enroll as freshmen in public four-year institutions at much higher rates than African American or Latino students. ${ }^{8}$

Figure 6:

## Under and Overrepresentation of Californias High School Graduates in Four-Year College Freshman Enrollments, 2005



State policy contributes to California's overall low rate of four-year college enrollment. According to the state's 1960 Master Plan for Higher Education in California, the state's vast system of community colleges should provide the first two years of college to many of the state's young people, who upon completion of their associate's degree, would transfer to four-year colleges. ${ }^{9}$ Approximately one-third of California's high school graduates do enroll as freshmen in the state's community colleges. ${ }^{10}$ Moreover, the representation of students from various racial groups among first-year community college students closely matches their representation among high school graduates. In 2005, only Latino and White high school graduates are underrepresented in community college freshman enrollments. ${ }^{11}$

However, community college persistence rates have been generally disappointing and disparate. Less than half of those entering two-year colleges ( $47 \%$ in 2002) as first-time freshmen return for a second year-a lower rate of persistence than in 44 other states. ${ }^{12}$ Moreover, although White, Asians, and African Americans are equitably represented among Associate of Arts (AA) degree recipients (i.e. comparable to their representation among high school graduates), Latinos are significantly underrepresented ( $26 \%$ of AA degree recipients compared to $37 \%$ of high school graduates in 2005).

Transfer rates from community colleges to four-year colleges are difficult to calculate. However, in 2003, California's Senate Office of Research reported that only about six percent of community college students transfer within three years of entering as freshmen. ${ }^{13}$ California's White and Asian high school graduates transfer from community colleges to four-year colleges at significantly higher rates than African American and Latino students. As Figure 7 shows, in 2005 African American and Latino students were underrepresented among transfer students, compared to their representation in the high school graduating class of 2002.

Figure 7:
California's 2002 High School Graduates Compared to 2005 Community College Fall-Term Transfer Students

*Other includes students who identified as either "Other," "Non-Resident," or provided "No Response."
Source: California Postsecondary Education Commission, online data, www.cpec.ca.gov

Low transfer rates seem to result from factors related to the institutions and the student. ${ }^{14}$ Many students who enter community college with the desire to transfer to a four year institution fail to do so because they experience a leveling of aspirations or a "cooling out" of educational ambitions. ${ }^{15}$ Even when students persist in the transfer process, they lower their aspirations due to inadequate academic preparation and/or insufficient financial aid. Notably, the trajectory that determines which students attend two- or four-year colleges is set early in students' middle and high school careers. As a result, low resource allocation and expectations for those not expected to attend a four-year college can undermine their preparation to transfer and succeed in four-year colleges. ${ }^{16}$

California's low rates of African American and Latino freshman enrollments in the state's four-year universities combined with low rates of transfer from community colleges to four-year universities produce overall low and disparate rates of college completion.

## Disparities in College Eligibility

To be eligible to attend a four-year public college in California, students must graduate from high school having completed a college preparatory curriculum, maintained a grade point average of at least a " C ", and taken college entrance exams (i.e. the SAT and the ACT). The University of California and the California State University system require that students take the same set of courses, although the UC system requires higher grades and test scores for eligibility than the CSU. Within both the UC and CSU systems students must have higher grade point averages and test scores at the more competitive campuses than at the less competitive campuses. ${ }^{17}$

The minimum high school course taking requirements for both CSU and UC admission consists of 15 courses across academic subjects and electives, seven of which need to be taken in the last two years of high school. Table 1 outlines the course requirements, commonly known as "A-G."

Table 1
California's "A-G" College Preparatory Curriculum

AHistory/Social Science-2 YEARS REQUIRED
Two years of history/social science, including one year of world history, cultures and geography; and one year of U.S. history or one-half year of U.S. history and one-half year of civics or American government.

English- 4 YEARS REQUIRED
Four years of college-preparatory English that include frequent and regular writing, and reading of classic and modern literature. No more than one year of ESL-type courses can be used to meet this requirement.

[Mathematics-3 YEARS REQUIRED, 4 YEARS RECOMMENDED Three years of college-preparatory mathematics that include the topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Approved integrated math courses may be used to fulfill part or all of this requirement, as may math courses taken in the seventh and eighth grades that your high school accepts as equivalent to its own math courses.

D
Laboratory Science-2 YEARS REQUIRED, 3 YEARS RECOMMENDED Two years of laboratory science providing fundamental knowledge in two of these three core disciplines: biology, chemistry and physics. Advanced laboratory science classes that have biology, chemistry, or physics as prerequisites and offer substantial additional material may be used to fulfill this requirement. The final two years of an approved three-year integrated science program may be used to fulfill this requirement.

E
Language Other than English-2 YEARS REQUIRED, 3 YEARS RECOMMENDED Two years of the same language other than English. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, composition, and culture. Courses in languages other than English taken in the seventh and eighth grades may be used to fulfill part of this requirement if your high school accepts them as equivalent to its own courses.

## [Visual and Performing Arts [VPA]-1 YEAR REQUIRED

A single yearlong approved arts course from a single VPA discipline: dance, drama/theater, music, or visual art.

College Preparatory Electives-1 YEAR REQUIRED
One year (two semesters), in addition to those required in "a-f" above, chosen from the following areas: visual and performing arts (non-introductory level courses), history, social science, English, advanced mathematics, laboratory science and language other than English (a third year in the language used for the " e " requirement or two years of another language).

Source: University of California, A-G Guide (California: University of California, 2006), www.universityofcalifornia.edu/admissions/undergrad_adm/paths_to_adm/freshman/subject_reqs.html

For particular high school courses in these subject areas to "count" toward fulfilling the A-G requirements, schools must submit the course to the Office of the President of the University of California, which then certifies the course as meeting its standards for content and quality.

Students who pass the 15 A-G required courses with a grade of C or better meet the minimum requirements for admission to CSU. However, UC recommends that students take additional courses in mathematics, laboratory science, and foreign language. Students admitted to UC for Fall 2006, took an average of 23 A-G courses. This average suggests that most entering UC freshman across the system took more than the required 15 courses.

These additional courses and students' grades are taken into consideration when students seek admission to the most selective campuses of the UC, as the table below shows. And, as Table 2 also shows, in Fall 2006, students admitted to CSU campuses in San Diego and San Luis Obispo had much higher GPAs in their A-G classes than the required 2.0.

Table 2 Required, Recommended, and Actual
A-G Course Taking and GPA for UC/CSU Admission

| Required for UC/CSU | 15 A-G courses + 2.00 in every course |
| :--- | :--- |
| Recommended for UC Admission-2007 | 18 A-G courses + 3.00 GPA |
| Average San Diego State University (CSU) <br> admit—2006 | 15 A-G courses* +3.61 GPA |
| Average Cal Poly San Luis Obispo (CSU) <br> admit—2006 | 15 A-G courses* +3.73 GPA |
| Average UC admit—2006 | 23 A-G courses + 3.80 GPA |
| Average UCLA admit—2006 | 24 A-G courses + 4.12 GPA |
| Average UC Berkeley admit-2006 | 25 A-G courses + 4.17 GPA |

*Note: The CSU campuses don't consider or report the actual number of A-G courses taken, so the actual average may be more than 15 courses
Source: UC Freshman Admits Profiles; San Diego State Profile of 2006 Admitted Students; Cal Poly, San Luis Obispo, Office of Admission.

Taking additional A-G courses is not only an advantage at the most selective UC campuses (UCLA and UC Berkeley). At UC Riverside, one of the least selective of the UC campuses, $82 \%$ of the applicants who'd taken 25 or more A-G courses were admitted. In contrast, $66 \%$ of those who had taken between the required 15 and $20 \mathrm{~A}-\mathrm{G}$ courses were admitted. Similarly, at UC Santa Cruz, $85 \%$ of the applicants who'd taken 25 or more A-G courses were admitted, compared to $67 \%$ of those who had taken between the required 15 and $20 \mathrm{~A}-\mathrm{G}$ courses. ${ }^{18}$

In addition to taking and passing the A-G courses with a grade of C or better, California high school students must take college entrance examinations. The UC requires that all students take the SAT 1, and the CSU requires students to take either the SAT Reasoning Test or the ACT assessment. In addition, UC also requires students to take two SAT II tests; students may take tests in any two of the following subjects: English, history and social studies, mathematics, science, or languages.

## Gaps at Every Turn Along the Road to Eligibility

Students from different racial and ethnic groups have very different degrees of success as they attempt to navigate the road to college eligibility. ${ }^{19}$ At the end of the road, they graduate from high school eligible for college at very different rates. Later in this report, we detail the roadblocks in $\mathrm{K}-12$ schools that help create these disparities. Here, we look in more detail at the gaps at the end of high school.

To report the gaps in high school graduation and college preparation, UC ACCORD developed the College Opportunity Ratio (COR). The COR is an indicator of the effectiveness of the state's schools in producing college-ready high school graduates. COR can be used by policymakers and the public to monitor how well California high schools enable students to move through one of their most critical schooling transitions-from being college-hopeful $9^{\text {th }}$ graders to being college-ready high school graduates.

COR is calculated by creating a three-numbered ratio. The first number represents 100 students who were enrolled as $9^{\text {th }}$ graders in a particular year. The second number shows, for every 100 Ninth graders, how many students graduated four years later. ${ }^{20}$ And the third number shows, for every 100 ninth graders, how many graduates passed the courses required for admission to CSU and UC. So, for example, if the COR for a particular high school is 100:80:40, it means that for every 100 Ninth graders, the school graduated 80 students 4 years later, and 40 of those graduates passed the courses required for admission to CSU and UC. In addition to computing the COR for every high school in the state, UC ACCORD developed and reported the COR for the state as a whole, for each legislative district, and for various student subgroups. ${ }^{21}$

California's statewide COR in 2004 was 100:69:26, meaning that for every 100 Ninth graders in 2000, there were 69 graduates and 26 college-ready graduates in 2004. And as Figure 8 from our Roadblocks report illustrates, only about half the number of students who have satisfied the minimum requirements for CSU and UC campuses actually enroll.

Figure 8:
Diminishing Numbers from 9th Grade to College Enrollment High School Graduating Class of 2004


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/ California Postsecondary Education Commission, online data, www.cpec.ca.gov

The considerable racial disparities in high school graduation and college preparation are not apparent in the overall state COR; therefore, Figure 9 shows the COR disaggregated by racial/ethnic groups. The COR for California's Asian and White students was considerably higher than the overall state average, and the COR for the state's Latino, African American, and American Indian students was far lower.

Figure 9:
College Opportunity Ratios for California Racial Groups 2000 9th Graders and 2004 High School Graduates


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
In 2006, University of California's Board of Admissions and Relations with Schools (BOARS) conducted similar analyses as part of their effort to document the extent to which the University of California "includes" the state's diverse young people. They traced the rates at which high school students of various racial groups move successfully from $10^{\text {th }}$ grade to enrollment at UC. They found racial disparities in high school graduation rates and college preparation rates similar to those revealed in the COR data, and they linked those disparities to disparities in UC admission and enrollment. ${ }^{22}$

The BOARS analysis also documented racial gaps in the proportion of students who take the SAT II, the subject area tests required for admission to UC.

Figure 10:

## Disparities in the Rates of Students Taking the SAT II (\% of 2001 10th Graders)



Source: University of California Board of Admissions and Relations with Schools, Inclusiveness Indicators (Oakland: University of California, 2006), ucaccord.gseis.ucla.edu/indicators/PDF/Inclusivenessreport.pdf; California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/

In fact, African American, Latino, and American Indian students are dramatically underrepresented at every point along the road to meeting UC admission requirements.

## Disparities Between and Within High Schools

Two dynamics within the public school system contribute to African American and Latino students' lower college preparation rates. First, African American and Latino students, far more often than White and Asian students, attend schools with overall low college preparation rates. Second, schools prepare African American and Latino students for college at lower rates than their White and Asian schoolmates. ${ }^{23}$

## Differences Between Schools in College-Going Rates

California high schools differ in their record of helping students navigate through high school to graduation and four-year college enrollment. Most dramatic are the different rates at which different California schools prepare students for the competitive University of California system.

The UC BOARS study found a relatively small proportion of high schools graduate nearly half of the public high school students who become UC freshmen. ${ }^{24}$ In 2004, for example, $48 \%$ of the UC freshmen admitted from California public high schools came from 188 high schools. ${ }^{25}$ As Table 3 shows, this pattern of a relatively small proportion of schools producing a large share of UC admits has been consistent over the past five years. ${ }^{26}$

Table 3
Rates at which California Public High Schools Send Graduates to the University of California

| Year | \# of CA Public High Schools | \% of GA High School Arats | \% Admitied to UB |
| :---: | :---: | :---: | :---: |
| 2001 | 174 | 20\% | 46\% |
| 2002 | 176 | 20\% | 47\% |
| 2003 | 190 | 20\% | 47\% |
| 2004 | 188 | 20\% | 48\% |

Source: University of California Board of Admissions and Relations with Schools, Inclusiveness Indicators (Oakland: University of California, 2006), ucaccord.gseis.ucla.edu/indicators/PDF/Inclusivenessreport.pdf

Notably, the sets of schools that produce a very large share of UC admits produce a much smaller share of the African Americans, Latinos, and American Indians admitted to UC. In 2004, for example, the 188 schools that produced $48 \%$ of the public high school admits to UC produced only $22 \%$ of all the African Americans, Latinos, and American Indians who were admitted. This lower rate may occur because few African Americans, Latinos, and American Indians attend these schools. Additionally, those who do attend these schools do not have equal access to the higher quality of college preparation received by their peers. ${ }^{27}$

## Disparities in College A-G Eligibility by School Racial Composition

Using our UC ACCORD COR methodology, we examined the rates at which California students from different racial groups graduated from high school with the minimum course requirements for UC and CSU in 2004. Figure 11 shows the disparities between students who attend majority White and Asian schools, majority African American and Latino schools, and intensely segregated African American and Latino schools ( $90-100 \%$ African American and Latino). ${ }^{28}$

Figure 11:
Graduates and A-G Eligible Graduates As a Portion of 9th Graders Four years Later in High Schools, by High School Racial Composition


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
Majority White and Asian schools prepare students for college at more than twice the rates as intensely segregated African American and Latino schools. Majority White and Asian schools also have higher levels of college preparation than schools that are 50-89\% African American and Latino. ${ }^{29}$

These school-level disparities in college preparation have a significant differential impact on students depending on their race: $74 \%$ of California's Latino students $(519,533)$ attend schools that do a relatively poorer job of preparing students for college, whereas $80 \%$ of White students $(487,699)$ and $69 \%$ of Asians $(154,678)$ attend schools that prepare students for college at much higher rates. ${ }^{30}$

Additionally, the differences between these two groups of schools have profound consequences for the state's lowest income children. Although high schools with $90-100 \%$ African Americans and Latinos comprise only $8 \%$ of the state's high schools, they comprise $41 \%$ of the state's highest poverty schools. High poverty schools enroll more than $80 \%$ of California students who participate in the federal subsidized program for poor children.

Students of all races do better at schools with high rates of graduation and college preparation than their peers who attend schools with lower rates. Figures 12 and 13 below show that the highest rates for every group are for the students attending majority White and Asian schools.

Figure 12:
High School Graduation Rates at Schools of Differing Racial Composition (2004)


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/

Figure 13:


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/

## Racial Disparities Within Schools

Figure 13 suggests differences in eligibility rates between and within schools. Table 4 illustrates the within-school differences in A-G eligibility rates in example schools from each of the three types of schools identified earlier. Each school exhibits higher rates of A-G eligibility for White and Asian students than for African American, Latino, and American Indian students. ${ }^{31}$ It is necessary to note that these schools also differ from one another in their overall rates, the rates at which they prepare Whites and Asians, and the rates at which they prepare African Americans and Latinos.

## Table 4

Within School Racial Gaps in A-G Completion [2004]

|  | School | County |  <br> Latilio | White/ asian A-A grads* | Afir Am Latino Ambind grais* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0-49\% African American \& Latino Schools |  |  |  |  |  |
|  | Palo Alto | Santa Clara | 12\% | 70 | 22 |
|  | Hemet | Riverside | 29\% | 44 | 23 |
|  | Palisades | Los Angeles | 48\% | 56 | 21 |
| 50-89\% African American \& Latino Schools |  |  |  |  |  |
|  | Redwood | Tulare | 54\% | 36 | 13 |
|  | Rio Mesa | Ventura | 61\% | 43 | 9 |
|  | Sweetwater | San Diego | 83\% | 77 | 16 |
| 90-100\% African American \& Latino Schools |  |  |  |  |  |
|  | Baldwin Park | Los Angeles | 90\% | 39 | 13 |
|  | Watsonville | Santa Cruz | 91\% | 27 | 14 |
|  | Valley | Orange | 94\% | 26 | 7 |

Note: A-G Grads are the number of students for every 100 ninth graders in 2000 who graduated in 2004 having completed the A-G course sequence with grades of C or better.
Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
In its 2006 analysis, UC BOARS found that the degree to which the low rates of admission of African American, Latino, and American Indian students to UC are almost equally attributable to two factors: 1) a between-school phenomenon-attendance at high schools with low eligibility rates; and 2) a within-school phenomenon-racial disparities in eligibility rates. ${ }^{32}$

What is clear from all of these analyses is that both school-level disparities in eligibility and within-school disparities must be addressed in any proposals to close California's racial gaps in access to the state's public, four-year universities.

## Roadblocks to College Preparation

The analyses above document disparities in college participation and eligibility, but they do not explain why they occur. Undoubtedly, many factors outside of school, such as families' differences in educational resources and supports and their understanding of college, play a role. The number of available seats in the state's four-year universities and the requirements they establish for college preparation and eligibility also contribute to the disparities.

It is beyond the scope of this paper to sort out all of the causes of the racial gaps in college preparation and college-going or to settle the very contentious debates about them. ${ }^{33}$ Rather, in this section of the report, we point to one unquestioned contributor: racial disparities in resources, opportunities and support in K-12 schools. We focus on these roadblocks within the K-12 system both because they contribute to inequalities in educational attainment and, as we describe in the final section of this report, because these roadblocks can be removed by the actions of policymakers and educators.

## Inadequate and Disparate Conditions for College Preparation

Considerable research makes clear that college-going is enhanced when a set of essential conditions characterize students' schooling. ${ }^{34}$

- Safe and Adequate School Facilities_Schools that are free of overcrowding, violence, unsafe and unsanitary conditions, and other features of school climates that diminish achievement and access to college. These schools also provide sufficient textbooks, materials, and equipment to enable students to meet the curriculum standards.
- Rigorous Academic Curriculum-Students are prepared for, and have access to, algebra in middle school and A-G college preparatory courses in high school.
- Qualified Teachers-Knowledgeable, experienced, and fully certified teachers provide instruction that engages students in intellectual work. In diverse communities, quality teaching makes highly valued knowledge accessible to students from diverse backgrounds.
- College-Going School Culture-Teachers, administrators, parents, and students assume that students are capable of high achievement and college preparation. High expectations are coupled with specific interventions and information that conveys to students that college preparation is a normal part of their childhood and youth.
- Intensive Academic and Social Supports-Teachers and counselors inform and prepare secondary students for college. However, all students require support that takes place outside the classroom or school. To navigate the pathway to college successfully, students need support networks of adults and peers to access tutors, material resources, counseling services, summer academic programs, SAT prep, coaching about college admissions and financial aid, and a myriad of other timely assistance.
- Opportunities to Develop a College-Going Identity-Students see college-going as integral to their identities; they have the confidence and skills to negotiate college without sacrificing their own identity or connections to their home communities. They recognize that college is a pathway to careers that are valued in their schools, families, peer groups, and local communities.
- Family-Neighborhood-School Connections Around College-Going-Connections between families and schools build on parents' strengths and consider them a valuable education resource for students. Educators and community groups work together to ensure that all families have access to essential knowledge of college preparation, admission, and financial aid. Moreover, parents and the community are actively involved in creating all of the other critical conditions described above.
The college chances of every student-wealthy or poor, regardless of race or ethnicity-will be affected by whether he or she has access to these seven essential college-going conditions. It is important to note that none of these conditions is within the control of the student or his or her family. Each condition results from education policy and practice.

Here, we summarize the overall inadequacies in some of these college-going conditions. Detailed evidence can be found in our previous report Roadblocks to College. ${ }^{35}$ First, fewer than half (45\%) of the state's comprehensive high schools provide all students a sufficiently rigorous academic curriculum. Specifically, they fail to offer enough college preparatory (A-G) classes to enable all students to take them.

Second, California's high school teaching force has neither the time, nor the preparation to provide most students with the high quality teaching they need as they prepare for college. ${ }^{36}$ California has the highest ratio of high school students to teachers of any state, a problem compounded by severe shortages of qualified teachers. More than $25 \%$ of California high schools routinely assign improperly trained teachers to college preparatory courses overall, and 33\% assign improperly trained teachers to college preparatory math classes. ${ }^{37}$

Third, California ranks last among the states in the provision of counselors that can cultivate a college-going culture on middle and high school campuses and connect students with the additional academic and social support they need for college preparation. On average, high school counselors across the nation work with 284 students; $92 \%$ of California high schools have too few counselors to reach this national average. Across the state, the average high school counselor load is 506 students, nearly double (1.76) the average nationally. ${ }^{38}$

Almost a third (30\%) of California schools suffer from all of these serious college preparation deficiencies-too few college preparatory courses, too few qualified teachers, and too few counselors.

As with disparities in college enrollments and rates of college eligibility, the disparities in students' access to essential collegepreparation resources and opportunities occur both between schools and within them. Schools with a high concentration of Latino, African American students, and students from low-income families provide fewer essential college preparation resources and opportunities than other schools. In diverse schools, Latino and African American students, on average, have less access to essential college-preparation resources and opportunities than their White and Asian classmates. These within-school differences are not simply a function of individual differences in students' effort or ability; they also result from insufficiencies at schools. When school resources and opportunities are insufficient and college preparation is optional, schools do not provide them equally to all students. ${ }^{39}$

Measured inequalities in college-preparation resources and opportunities in California schools fall into four broad categories: 1) access to a rigorous college preparatory curriculum; 2) access to educators who make the curriculum accessible; 3) access to crucial college preparatory information and social supports, in the form of counselors and other sources of support for college-going; 4) accountability to parents and the public around schools' effectiveness in college preparation. In what follows, we describe the inequalities in each of these categories.

## Disparate Access to the College Preparatory Courses

Most California high schools offer a wide array of courses, many of which don't meet four-year colleges' A-G requirements. As we noted earlier, some academic and elective courses qualify, others do not. For such courses to "count" as A-G, high schools must submit them for approval to the University of California. Other types of courses-career and technical courses, school service, etc.-fall outside the A-G categories.

As we detail below, schools differ considerably in their A-G offerings. Moreover, within schools, all students don't take the same mix of classes.

## Disparities Between High Schools in A-G Offerings

High schools in which fewer than $67 \%$ of all courses offered at a given time are college prep do not have enough of these courses for all students to enroll in a college prep program. Realistically, however, high schools need to ensure that an even larger percentage of their courses qualify if they are to ensure that every student can take 15 A -G classes over their four years in high school. Nevertheless, across the state, less than half ( $45 \%$ ) of comprehensive high schools meet the minimum threshold of $67 \%$ A-G classes. ${ }^{40}$

As Figure 14 shows, shortages of college preparatory classes are much more likely in schools where African American and Latino students are in the majority. Only 30\% of schools enrolling 90-100\% African American and Latino students and 33\% of schools enrolling $50-89 \%$ from these groups have sufficient college preparatory offerings. In contrast, more than half ( $55 \%$ ) of the schools where White and Asian students are the majority offer at least the minimum of $67 \% \mathrm{~A}-\mathrm{G}$ classes.

Figure 14:
Racial Disparities in Access to Schools with Enough College
Preparatory Classes (2004-2005)


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
The shortages of college preparatory classes in the intensely segregated and majority African American and Latino schools affect $47 \%$ of the state's student enrollment $(814,387)$ and $72 \%$ of its African American and Latino high school students.

## Disparities in Higher Level A-G Class Offerings.

The best predictor of college enrollment and completion is the rigor of the courses students take in high school, especially advanced mathematics. ${ }^{41}$ The racial disparities between schools in their overall A-G offerings are compounded by additional disparities in the availability of advanced A-G courses required and/or recommended for college admission.

For example, to complete the A-G sequence, students must take three approved mathematics classes, and four courses recommended by UC. That means that all students must take at least one advanced math class beyond Algebra 1 or Integrated Mathematics 1 (classes normally completed in the $8^{\text {th }}$ or $9^{\text {th }}$ grade) and geometry or Integrated Mathematics 2 (classes normally completed in the $9^{\text {th }}$ or $10^{\text {th }}$ grade). Students who hope to attend UC should take at least two advanced classes. These additional classes include advanced algebra, trigonometry, calculus, as well as third and fourth year integrated mathematics classes.

Schools do not provide these advanced mathematics classes equally. As Figure 15 shows, schools comprised almost entirely of African American and Latino students provide enough advanced math courses to accommodate only one of every three $10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ graders. This contrasts with majority White and Asian schools that offer enough advanced math courses to accommodate one of every two $10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ grade students.

Figure 15:

## Access to Higher Level A-G Math Classes in Schools Differing in Racial Composition (Available Seats - 2004-2005)



Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
Figure 16 displays the inequality in the availability of advanced math courses. It shows the percentage of all of the mathematics classes that are advanced that are offered at these types of schools. Advanced math courses comprise about a quarter of the math classes at schools enrolling a majority of African American and Latino students. In contrast, $38 \%$ of the math classes at majority White and Asian schools are advanced. Combined with the analyses in Figure 15, these data show that it is far more difficult for students at majority African American and Latino schools to complete the entire sequence of A-G math requirements during four years of high school.

Figure 16:
Access to Higher Level A-G Math Classes in Schools Differing in Racial Composition (Proportion of Math Classes that are Advanced 2004-2005)


[^0]Accordingly, some of the disparities in Figure 16 may result from a greater proportion of students enrolled in remedial classes, classes for which there is very little evidence of effectiveness. ${ }^{42}$ In fact, one commonly offered explanation for these advanced course disparities is that students of color and poor students lack the intelligence, the motivation, or the parental support to warrant additional mathematics and other advanced classes. However, considerable evidence shows that African American, Latino and low-income students take college preparatory classes at far lower rates than Whites and Asian students, even when their achievement is comparable. 43 This suggests that at least some of the lower enrollment of African Americans and Latinos in advanced math courses can be attributed to the insufficient availability of these courses at their schools.

## Disparities in Access to Honors and Advanced Placement Classes.

Not all A-G classes "count" equally for admission to the campuses of the University of California. In addition to "regular" A-G courses, many high schools offer "honors," Advanced Placement, or International Baccalaureate A-G courses. To qualify a course as "honors," the school must demonstrate to the university that the course meets a more rigorous set of university-established criteria. Students who take these courses earn "weighted" grades that can raise their grade point averages. For example, a student earning a "B" grade in an "honors," Advanced Placement, or International Baccalaureate courses in English would earn as many "grade points" for the course as a student who earned an "A" grade in a standard A-G course.

California high school students can have weighted grades in up to eight of their A-G courses counted into their GPA on their college applications. Doing so greatly enhances students' chances of meeting the higher entrance requirements of the competitive UC system. That's why so many applicants to the most competitive colleges can report high school grade-point averages of over 4.0, the highest grade-point average that a student can earn without "honors" classes.

Some schools provide far greater access to "honors" A-G classes than others. Comprehensive data about these school-level differences are not publicly available, but some evidence has been produced regarding the availability of Advanced Placement courses.

Access to Advanced Placement classes was the subject of a California lawsuit. In Danielv. State of California, plaintiff high school students argued that African American and Latino students have less access to Advanced Placement courses in predominantly African American and Latino high schools. ${ }^{44}$ They relied for evidence on a 1997 study by the Tomas Rivera Policy Institute (TPRI), that revealed the relationship among 1) the number of different AP courses offered at California high schools; 2) the racial composition of schools; and 3) school size. That study found that, once school size was taken into account, the relationship between the racial composition of schools and AP offerings was strong: the larger the percentage of African Americans and Latinos, the fewer the AP courses schools offer.

In settling Daniel, the California Department of Education agreed to remedy the inequalities across schools by establishing the Advanced Placement Challenge Grant program. However, that program provided few resources and guidance to schools as they attempted to increase their AP offerings. A recent study by the Tomas Rivera Policy Institute shows that the program may have helped schools increase their AP offerings, but the racial inequalities in access remain. Table 5 displays the relationship in 1997 and 2003 between school racial composition and AP offerings in high schools in two categories of high schools: those with 1,5002,000 students and those where the enrollments exceed 2,000 students.

Table 5
Average Number of AP Courses Offered in Schools with 1,500 to 2,000 Students Enrolled

| \% of Student Body <br> Who is African American <br> or Latino | $\mathbf{2 0 0 3 - 2 0 0 4}$ | 1997-1998 |
| :---: | :---: | :---: |
| $\mathbf{0 - 1 0 \%}$ | $\mathbf{8}$ |  |
| $\mathbf{1 0 - 2 5 \%}$ | $\mathbf{8}$ | $\mathbf{6}$ |
| $\mathbf{2 5 - 5 0 \%}$ | 7 | $\mathbf{6}$ |
| $\mathbf{5 0 - 7 5 \%}$ | 7 | $\mathbf{6}$ |
| $75-100 \%$ | 7 | $\mathbf{5}$ |

## Average Number of AP Courses Offered in Schools with over 2,000 Students Enrolled

| \% of Student Body <br> Who is African American <br> or Latino | 2003-2004 | 1997-1998 |
| :---: | :---: | :---: |
| $\mathbf{0 - 1 0 \%}$ | $\mathbf{1 3}$ | $\mathbf{1 0}$ |
| $\mathbf{1 0 - 2 5 \%}$ | $\mathbf{1 1}$ | $\mathbf{9}$ |
| $\mathbf{2 5 - 5 0 \%}$ | $\mathbf{1 0}$ | $\mathbf{7}$ |
| $\mathbf{5 0 - 7 5 \%}$ | $\mathbf{9}$ | 7 |
| $\mathbf{7 5 - 1 0 0 \%}$ | $\mathbf{9}$ | $\mathbf{7}$ |

Source: E. Zarate and H. Pachon Gaining or Losing Ground? Equity in Offering
Advanced Placement Courses in California High Schools 1997-2003 (Los Angeles: Tomas Rivera Policy Institute, 2006).
One of TRPI's most important findings was that in 1997, the disparity between low-minority concentration and high-minority concentration schools in AP course offerings was 30\% for large schools (more than 2,000 students). Six years later, in 2003 the difference was $28 \%$, a decrease of only $2 \% .{ }^{45}$

## Disparities Within Schools.

In addition to the inequalities among schools in their A-G offerings, there are notable within-school disparities in students' access to the A-G classes. The longstanding (if largely discredited) tradition of academic tracking within schools-i.e. providing different classes for students based on their intellectual ability, prior achievement or likely post-high school destinations (college or work) -has meant that only those students judged to be most able at a school are enrolled in the courses needed for college. Others are enrolled in "lower" level courses that demand less of students. ${ }^{46}$

Historically, African American, Latino, and American Indian students have been judged to be less intellectually able and less suited for college. As a consequence, they have been less likely to be enrolled in college preparatory courses than their White and Asian peers. These low enrollment patterns continue in today's high schools, as is clear from the figures earlier in this report showing the racial differences in rates of completing the A-G sequence. ${ }^{47}$

Figures 17 and 18 show the racial disparities in students' access to the advanced A-G math and science courses their schools offer. The California Department of Education provides publicly available data for chemistry, physics, algebra 2, and advanced math courses (including math analysis, trigonometry, and calculus). In each of the four courses, African Americans, Latinos, and American Indian $10^{\text {th }}, 11^{\mathrm{th}}$, and $12^{\text {th }}$ graders are underrepresented, while their White and Asian peers are overrepresented in these courses. In Figure 17, a score of 0 would mean that the percentage of students of a particular racial group in a course matches that group's percentage in the school as a whole. That is, if $25 \%$ of the students are from one racial group and if $25 \%$ of the students in chemistry are from that same group, that school's score for this group would be 0 , showing that the group is equitably enrolled in chemistry. Scores below 0 (e.g., $-24 \%,-14 \%$, etc.) indicate that students from that group are enrolled at lower percentages than would be equitable. Scores above $0(23 \%, 10 \%$, etc.) indicate that students from that group are enrolled at higher percentages than would be the case if students were enrolled equitably. Figure 17 shows the average scores for the four types of courses for all California schools.

Figure 17:

> Within School Racial Disparities in Enrollment in Advanced College Preparatory Classes (All California High Schools, 2005)


Average Representation of 10, 11, \& 12 Graders in Advanced College Preparatory Classes, by Race

Source: California Department of Education 2005-2006.

Disparities in representation in physics and advanced math classes (shown in Figure 18) are especially notable, since enrollment in these courses may determine admission to competitive four-year universities. Furthermore, these within-school racial disparities in advanced course-taking occur in intensely segregated African American and Latino schools, in majority African American and Latino schools, and in majority White and Asian schools-in short, in all types of schools.

Figure 18:

## School Composition and Within School Racial Disparities in

Enrollment in Advanced Mathematics and Physics Classes in
California High Schools, 2005


Average Representation in Advanced Math Courses by race and school composition


Average Representation in Physics Courses
by race and school composition


Source: California Department of Education 2005-2006.
Figures 17 and 18 also show that African American and Latino students enroll in advanced courses at higher rates in schools where they are the majority. Their representation in advanced courses comes closest to matching their representation in the school as a whole in those schools where they comprise $90-100 \%$ of the school population. That's not surprising, since there are relatively few students from other groups competing for seats in these classes. Even so, White and Asian students occupy more than an equitable share of slots in advanced classes, regardless of whether they are in the majority or minority at their high schools.

## Additional A-G Barriers for English Learners.

Currently, one year of advanced high school English as a Second Language or English Language Development "counts" toward meeting the four years of English required under A-G, as long as those courses include college preparatory composition and literature comparable to other college preparatory English courses. However, many high schools keep students in these courses for more than one year, making it virtually impossible for English Learners-even those who enter California schools with solid academic preparation from their home country-to meet the A-G requirements. Additionally, many schools use proficiency in English as a prerequisite for entry into A-G courses in other subjects. Instead, these students are tracked into lower-level courses. ${ }^{48}$

## A Double Layer of Inequality

Perhaps most significant are the double layers of inequality revealed by the combination of these within-school disparities together with the analyses of between-school disparities in advanced course offerings we presented in Figures 17 and 18 . In combination, these analyses reveal that African American and Latino students are less likely to have access to advanced courses, regardless of the type of school they attend. If they attend schools where they are the majority and where they are more likely to be enrolled equitably in advanced courses, there are likely to be a relatively small number of these courses offered. If they attend majority White and Asian schools where more advanced courses are offered, their chances of being equitably enrolled in these classes are low compared to their White and Asian counterparts.

Compounding the problem of inequitable enrollments in advanced courses, African American and Latino students also report far more often than their White and Asian peers that they don't feel welcomed into and supported in advanced and honors classes at their schools. This difference in perception is not trivial, as students who report feeling welcome and supported in advanced coursework are more likely than others to go onto college. ${ }^{49}$

Figure 19:
Disparities in Social Academic Support in Advanced Courses (2003)

Odds of African Americans and Latinos Reporting Low Levels of Support in Comparison to Whites


Source: UC ACCORD, Survey of Recent High School Graduates, (Los Angeles: UC ACCORD, 2003).

## Lack of Materials and Facilities to Offer High Quality A-G Classes.

Even when high schools have courses and qualified teachers, dysfunctional science labs, insufficient supplies, and a lack of computer hardware and connectivity can hobble their academic programs. ${ }^{50}$ For example, California's Science Content Standards call for an array of learning materials from kindergarten through grade twelve: from thermometers and wind vanes to geologic and weather maps; from magnifying glasses and microscopes to computer-linked probes; and from batteries, wires, transistors, and light bulbs to spring scales, balances, and ropes, as well as laboratory equipment and laboratory facilities (i.e., sinks, water supply, gas supply, charts of periodic tables, microscopes, etc.). ${ }^{51}$ Similarly, the mathematics standards expect students to use protractors, rulers, stop-watches and thermometers to "compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems." ${ }^{52}$

That California schools suffer from shortages of these essential facilities and materials was made clear in Williams v. State of California, a class action suit filed in 2000 on behalf of California public school students attending schools with shortages of qualified teachers, sufficient textbooks and supplies, and adequate facilities. ${ }^{53}$ Moreover, the schools most likely to have acute shortages of materials and equipment were schools enrolling large percentages of African American, Latino, and lowincome students. ${ }^{54}$ This lack of access to materials not only prevents students from meeting the state's content standards, it also constrains their opportunities to successfully complete college preparatory courses.

## Disparities in Access to Fully Qualified Teachers

With one high school teacher for every 21 students, California's high school teachers are responsible for more students than teachers in any other state. In fact, $91 \%$ of California high schools have more students per teacher than the national average. Further, this teacher-student ratio does not reflect the actual class sizes that high school teachers must teach. Classes of 30 to 40 students are common in California high schools. Students have far less access teachers in very large classes than they do in smaller ones.

Students attending high schools enrolling 90-100\% African American and Latino students are more likely than students in majority White schools to have teachers who are not fully qualified. Having fully qualified teachers is critically important to students' opportunities to prepare for college. Well-qualified teachers provide a wide range of teaching strategies, including the ability to ask higher order questions and respond to students' needs and curriculum goals. ${ }^{55}$ Poorly qualified teachers spend more time on drill and practice, while those better prepared can engage students in higher level thinking about content. ${ }^{56}$

Figure 20 shows that high schools enrolling $90-100 \%$ African American and Latino students are almost 8 times as likely as majority White schools to have significant shortages of fully qualified teachers. We characterize schools with less than $80 \%$ of their faculties fully certified as having significant shortages, both because of the impact on individual students and because faculty certification rates of less $80 \%$ are associated with school-wide problems, such as a lack of sufficient mentors for novice teachers and increased rates of teacher turnover. ${ }^{57}$

Figure 20:
Racial Disparities in Access to Fully Qualified Teachers (2004-2005)


Percent of Schools with Teacher Problem (less than $80 \%$ fully credentialed)

Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
Statewide, more than $25 \%$ of all California high schools suffer from severe teacher shortages and "mis-assignments" in college preparatory courses. At these schools, teachers without the appropriate subject matter qualifications teach more than $20 \%$ of the college preparatory classes. Schools enrolling $90-100 \%$ African American and Latino students are almost 3 times as likely as majority White schools to have significant percentages of "mis-assigned" teachers teaching A-G courses.

Figure 21:
Disparities in A-G Classes Taught by Teachers Certified in the Subject Matter of the Class (2004-2005)


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/
California's teacher mis-assigment problem is most severe in A-G mathematics classes. More than $33 \%$ of California high schools routinely assign improperly trained teachers to teach college preparatory math courses. Schools enrolling 90-100\% African American and Latino students are about $21 / 2$ times more likely than majority White schools to have more than $20 \%$ of their A-G mathematics classes taught by teachers lacking full math certification.

Disparities in access to qualified teachers begin in middle school, a time when students should learn the foundational knowledge to succeed in college preparatory courses. ${ }^{58}$ Figure 22 shows that students attending middle schools where African American and Latino students are the majority are less likely to be taught by fully credentialed teachers. Although having a math credential is not a universal requirement for middle school math teachers, students who attend majority African American and Latino schools are significantly less likely to take math courses taught by a teacher with a math credential.

Figure 22:
Disparities in Courses Taught by Qualified Teachers in California Middle Schools (2004-2005)


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/

Racially disparate patterns in access to qualified teachers are also found within schools. Although we lack publicly available data to document the extent of this problem in California's schools, considerable research has established this pattern. Schools are far more likely to assign inappropriately certified and inexperienced teachers to classes that don't satisfy college admissions requirements than they are to college preparatory courses. ${ }^{59}$ Accordingly, California's Latino, African American, and American Indian high school students are more likely to be enrolled in classes taught by the least qualified teachers than are White and Asian students.

## Disparities in Access to Information, Guidance, and Encouragement

To sustain and fulfill college aspirations, students and their families need adequate information, and they need to receive it early enough for students to complete the necessary prerequisites for college. They need to be encouraged and supported in achieving their college aspirations. These supports need to begin early because students who fall behind early typically have great difficulty compensating in later years. ${ }^{60}$

Students who receive correct and plentiful information and assistance, those who are not steered away from four-year colleges, and those who receive specific assistance with applications, have admission rates up to three times greater than those who do not, even when their participation in college preparation courses is comparable. Notably, the impact of these supports is greater for African American and Latino students than for White and Asian students, perhaps because they are less likely to have networks of information and support outside of school. ${ }^{61}$

Disparities in students' and their families' access to counseling, encouragement, academic supports, and knowledge about college admissions contribute to unequal college attendance. Few African American and Latino students know the courses required for admission to public colleges, most are confused about the expectations of college-level work, most overestimate tuition especially at less-selective four-year and community colleges, and most are unaware of college placement exam content. ${ }^{62}$ African American and Latino students who depend most on the advice of school counselors are less likely than others to engage with them.

## Lack of Well-Articulated College Preparation.

Students who intend to take college preparatory classes are not automatically enrolled in the right number and/or sequence of classes. Because the college preparatory curriculum is not the default for California high school students, students either rely on their counselors' decisions or they are asked to choose which courses they will take. Each year, students must select the proper courses, but schools often fail to monitor whether the selections are aligned with students' and their families' academic aspirations.

Many students fail to meet the CSU and UC eligibility requirements because they took one course too few, took the wrong course, or took courses in the wrong order (e.g. they took a lab science course before taking a prerequisite mathematics course). ${ }^{63}$ These mistakes have serious consequences for students' future education and life chances.

## Disparities in Information ahout College and Encouragement.

Given the importance of information and encouragement to pursue college, the extent to which schools provide them equally to all groups of students has serious implications for equitable access to college. As eighth graders, African American and Latino students are less likely than their White and more advantaged peers to receive basic information about college options, particularly for more selective colleges, in time for them enroll in college preparatory high school classes. ${ }^{64}$ Moreover, their parents are less likely to understand the differences among the various classes that are offered by high schools and what they mean for their children's post-secondary education. ${ }^{65}$ This may be one reason why African American, Latino and low-income students take college preparatory classes at far lower rates than Whites and Asian students, even when their achievement is comparable. ${ }^{66}$

African American and Latino students are less likely than other students to receive information and assistance. ACCORD's survey of recent California high school graduates found that African American and Latino students were less likely to have been given information about college at school than White and Asian students. ${ }^{67}$ Those from low-income families attending low-income urban schools are the least likely to receive important, timely college information. ${ }^{68}$

In addition to lacking information, African American and Latino students report far more often than Whites and Asians that school adults actually steer them away from attending four-year colleges. Rather than being encouraged to attend four-year colleges, these students were more likely to be encouraged to go to a community college, to a trade or vocational school, or to get a job after high school. ${ }^{69}$

Figure 23:
Disparities in College-Going School Culture, 2003
Increased odds that African Americans and Latinos report low levels of
college-going school culture relative to Whites and Asians college-going school culture relative to Whites and Asians


Source: UC ACCORD, Survey of Recent High School Graduates, (Los Angeles: UC ACCORD, 2003).

## Lack of Information on Financial Aid.

The costs of college are skyrocketing and the need for financial aid is increasing. Moreover, financial aid is increasingly awarded in the form of loans, and student loan debt is mounting. Grants and scholarships that remain available are increasingly awarded based on students' academic merit, rather than their financial need. ${ }^{70}$

The lack of accurate information about college costs and financial aid presents a huge barrier to college access for low-income groups. ${ }^{71}$ Eligible low-income students fail to enroll in college in part because they have inaccurate information and are uncertain about financial aid. ${ }^{72}$ African American and Latino students' college aspirations are particularly thwarted by the lack of this information. ${ }^{73}$

## Shortages and Disparities in Guidance Counselors.

African-American, Latino, and low-income students' access to information is constrained by a lack of fully credentialed counselors and other trained professionals to advise them. As a result, these students and their families must depend on their informal information sources that are often less than accurate. ${ }^{74}$

Many California public high schools lack a staff member whose primary responsibility is college preparatory advising. Schools also lack a regularly identifiable K-12 staff member held accountable for graduates' college enrollment. Although some people assume that school counselors do college advising, many counselors do not have adequate training. Moreover, high school counselors are assigned many other categories of work that take precedence over college counseling, such as scheduling, testing, discipline, dropout prevention, drug use, pregnancy, suicide prevention, personal crisis counseling, attendance, lunch supervision, and so forth. One study found, for example, that public high school counselors engage in college guidance only $13 \%$ of their time. ${ }^{75}$ By way of comparison, private college preparatory schools that send the largest proportion of their students to competitive colleges have counseling positions that are devoted exclusively to college counseling.

Even when public high school counselors see college advising as their responsibility and are trained to do it, schools do not have enough of them to do the job well. We reported earlier that the California's average ratio of counselors to high school students is 1 to 506 , compared to the national ratio of 284 high school students for every high school counselor. ${ }^{76}$ Moreover, access to counselors is not equitably distributed among the state's high schools. As Figure 24 shows, although the vast majority of all California schools have student to counselor ratios that exceed the national average, students have the least access to counselors in intensely segregated and majority African American and Latino schools.

Figure 24:
Disparities in Access to Counselors in California Schools Differing in Racial Composition (2004-2005)


Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/

African American and Latino students are less likely than other students to have access to high school counselors, but they are more likely to have their college plans influenced by counselors when counselors are available. ${ }^{77}$ Furthermore, African American and Latino students are more likely than other students to have under-prepared counselors and the most likely to have counselors pulled away from college counseling to work on other tasks. ${ }^{78}$ College guidance is often tied to the courses that students take, and students who are not in the most advanced courses are less likely to receive college information. As a result, African American and Latino students are significantly less likely than their White counterparts to receive the counseling they might gain if they were enrolled in college preparatory courses at higher rates. Compounding these problems, African American and Latino students often exhibit deep and well-founded distrust of counselors because of racist and socioeconomic biases in advising. ${ }^{79}$

Currently, California families must supplement the limited school-provided college-preparation information and guidance with out-of-school support, including tutoring, supplemental academic classes, college counseling, preparation for college entrance tests, and more. Among households with educated parents, many rely on the knowledge and resources within their own families. Others purchase services from private providers. ${ }^{80}$

For example, UC ACCORD's 2003 survey of 3,000 18-year-old California high school graduates revealed that well-educated parents are more likely than others to make up for any deficits on the schools' part by purchasing this extra boost for their children outside of school. ${ }^{81}$

- Tutoring. Students whose parents have college degrees were more than twice as likely than students from less well-educated families to have their family or friends provide them a tutor ( $32 \%$ compared to $14 \%$ ). Only $5 \%$ of students whose parents have not finished high school had tutors provided by their families or friends.
- Extra Classes. Students whose parents have college degrees were nearly twice as likely as students from less well-educated families to attend extra classes offered by a private school or company ( $9 \%$ compared to $5 \%$ ).
- SAT Prep. Students whose parents have college degrees were more likely than students from less welleducated families to take special classes to prepare for the SAT ( $42 \%$ compared to $35 \%$ ).
- Private College Counselors. Students whose parents have college degrees were nearly twice as likely as students whose parents didn't finish high school to use a private college counselor to help with college applications ( $13 \%$ compared to $7 \%$ ).

This tendency of California families to use the private sector as a primary resource to support college-going is a fairly new phenomena. In previous decades, these services were more often provided within the public school system. However, many California families have neither the experience nor resources to supplement what is provided at school. These tend to be families where children will be the first to attend college; families with moderate-to-low incomes; immigrant families; and others without education support networks. The inadequacies in the college preparation opportunities that schools provide and disparities in families' access to outside resources converge in ways that disproportionately limit college access for the state's Latino and African American students.

## Lack of Accountability to the Public for College Preparation

California lacks an accountability system that adequately reports on whether schools are promoting college readiness and providing the necessary conditions to achieve this end. The state's primary mechanism for reporting to the public on school quality is the School Accountability Report Card or SARC. Districts are responsible for preparing SARCs for each of their public schools. Most SARCs include some useful school-level information about educational outcomes (such as student test scores) and learning conditions (such as the qualifications of faculty). Yet, few SARCs provide clear and accurate information on students' progress toward college readiness. Generally, high schools calculate and report graduation rates as the percentage of students enrolled as 12th graders in October who graduate the following spring. There is no report of the number of college hopeful $9^{\text {th }}$ graders not successfully reaching $12^{\text {th }}$ grade. Also, SARCs rarely report how many graduates enroll in two- and four-year colleges and universities or how many graduates entered college and required remedial courses before beginning college-level coursework. They also do not report the percent of college-hopeful $9^{\text {th }}$ graders. That is, most SARCs do not hold schools accountable for how well they enable cohorts of incoming 9th graders to move on a pathway towards college readiness and enrollment.

Furthermore, most SARCs do not present information on learning conditions in a format that allows parents to determine whether their children are receiving quality college preparatory instruction. Some key information-for example, student access to the A-G course sequence-is not presented. Moreover, information on coursework availability and teacher preparedness is not presented in a manner that allows parents to compare conditions across schools or against a common standard.

Nor does California's accountability system provide mechanisms such as information and incentives for improving the capacity of schools to promote college readiness and enrollment in four-year colleges. California's test-based accountability model establishes incentives for schools to raise test scores. Yet, California high schools are neither rewarded nor punished for how many incoming 9th graders graduate ready to enter college-level coursework. Therefore, the state does not create incentives for high schools to provide a full array of college-promoting learning opportunities.


Our previous report highlighted the climate of scarcity that characterizes California's K-12 public education system. ${ }^{82}$ This scarcity undermines the ability of most California schools to promote college-going for all students. But, because scarcity is felt more acutely in some schools, its effects are particularly deleterious for low-income students of color. California needs to simultaneously expand the resources across its K-12 system AND direct targeted resources to those schools that have been provided with the least opportunities.

This section recommends policies and practices that will help remove the roadblocks to college in California schools. Because the current unfairness in college preparation opportunities exist both between schools and within many of them, these recommendations apply both to schools where rates of A-G eligibility and four-year college-going are low overall and to schools where low rates characterize significant sub-groups of students. Because some of the inequity is also the result of higher education policy, this section also includes recommendations for changing eligibility and admissions practices at institutions of higher education.

We begin by acknowledging that an important precondition for college eligibility and participation is a school culture where teachers and administrators expect, encourage, and support students to achieve well and prepare for college and where these educators structure college preparatory opportunities. A number of studies have documented the power of a school-wide expectation that all students will spend time and effort on academic subjects and a school-wide belief that that effort will pay off in high levels of academic achievement. Teachers in such schools demand more of students, and students in such schools respond with greater effort, persistence, and achievement. ${ }^{83}$

Expectations and beliefs are not things that policymakers can mandate directly. ${ }^{84}$ However, high expectation, college-going school cultures do not exist in a policy vacuum. They are supported by and reflected in concrete resources, conditions, and opportunities that lead to high achievement and college-going. These are features of schools that can be created and shaped by policy. These policy-alterable features of high schools and middle schools are the focus of our recommendations below. While this report focuses attention on middle school, high school and higher education, the success of these policies is dependent on the provision of high quality instruction to all students in elementary schools as well.

Accordingly, we recommend nine changes that will remove many of the roadblocks to college and promote college-going cultures in California middle and high schools. We focus specifically on concrete resources, conditions, and opportunities that policy can alter.

## Table 6 <br> Policies That Remove Roadhlocks to College

If enacted, the following policies would remove concrete roadblocks that impede the way to college for many California young people. The following college preparatory conditions are especially necessary for students attending schools with low overall rates of A-G eligibility and four-year college-going and in schools where subgroups of students experience low rates of college preparation and participation.

## 1. A College Preparatory [A-G] Curriculum for All Students

1.1 California high schools make the A-G college preparatory course sequence the "default" curriculum.
1.2 California high schools offer multiple pathways for students to complete college preparation, including pathways that align and/or integrate career and technical courses with A-G academic courses. Students who wish to pursue technical careers must simultaneously be able to complete the courses required for UC/CSU admission.
1.3 All California high-school programs for immigrants and English Learners include and develop their language competencies and prior education as part of college preparation.
1.4 California high school students may enroll concurrently in appropriate community college courses, particularly those that provide advanced course work in the A-G subjects.
1.5 State high school assessments are aligned to college admissions and placement tests.

## 2. Fully Prepared Teachers in College Preparatory [A-G] Courses

2.1 All teachers of college preparatory (A-G) courses are fully credentialed in the subject matter of the course.
2.2 All teachers participate in ongoing professional development that prepares them with the content knowledge and pedagogical skills to teach rigorous college preparatory courses to diverse groups of students.
2.3 A specially educated core of "College Opportunity Teachers" provides assistance to the school as it increases the rates at which students graduate ready for four-year universities.

## 3. A Rohust Academic Support Infrastructure

3.1 Small learning communities ease 9th graders transition into high school.
3.2 Additional academic instruction and support built into the master schedule replaces "remediation" and repeating subjects.
3.3 Summer school is available to all students, including "bridge" classes that give students a "head start" in rigorous academic classes.
3.4 The senior year includes additional coursework for students to become proficient on college placement tests and/or to begin college-level courses.

## 4. Effective College Counseling

4.1 The student-counselor ratio does not exceed 200:1.
4.2 All counselors have formal training in college counseling.
4.3 Professional development in building a "college-going culture" is provided to all administrators, teachers, paraprofessionals, counselors, and counseling staff.

## 4. Effective College Counseling [continued]

4.4 "College Knowledge" curriculum tools enable educators to create a college-going culture.
4.5 Students and families are consistently given specific information about their individual progress toward college eligibility.
4.6 Advisory classes and other opportunities enable students to develop supportive relationships with teachers and administrators that are sustained throughout the high school years.
4.7 Local community-based organizations engage as partners in providing workshops to families in the college preparation, admissions, and financial aid process.

## 5. College Preparatory Culture and Conditions in Elementary and Middle Schools

5.1 Middle school courses provide rigorous, academic, college preparatory "pipeline" curricula.
5.2 Middle school courses are taught by teachers certified in the subject matter of their courses and who have the pedagogical skills that make rigorous academic content accessible to diverse groups of learners.
5.3 Middle schools student-counselor ratios do not exceed 200:1.
5.4 Tutoring and other intensive academic supports ready students for college preparatory high school courses.

## 6. "Second-Chance" College Preparatory Opportunities Beyond Traditional High Schools

## 7. Accountability and Public Engagement around College Preparation

7.1 Information about high school students' college preparation and high school graduates' college participation is regularly collected and analyzed.
7.2 Indicators that "grade" the quality of college preparation and participation are reported on state and school report cards.
7.3 Parents and community members review the local college preparation report card at annual public forums and participate in holding local schools accountable.

## 8. Revised Higher Education Policies that Increase the Number and Diversity of California Students who Attend and Complete Degrees at the State's Four-Year Public Universities.

8.1 Eligibility and admissions criteria eliminate the effect of racial preferences in $K-12$ education.
8.2 A revised California Master Plan for higher education permits far more high school graduates to enroll in four-year public universities.
8.3 Students who begin their post-secondary education in two-year institutions are provided the necessary resources to make a fluid and timely transition to a four-year institution.
9. Sufficient Funding to Support These College Opportunity Policies

## 1. A College Preparatory [A-CI Curriculum for All Students

### 1.1 California high schools make the A-G college preparatory course sequence the "default" curriculum.

Enrolling all students in the A-G course sequence would reduce one of the most significant barriers to college-going. By simplifying the high school curriculum and eliminating the distinction between A-G courses and "non A-G" courses in the academic subjects, families and students would be assured that students are taking the "right" courses for college preparation. Additionally, reducing the number of different course offerings in the academic subjects should reduce scheduling problems that currently make it difficult for students to take college preparatory courses in the right numbers and in the right sequence. Moreover, with A-G as the default curriculum, students who work hard and get high grades can be assured they are on the road to college. This is very different from the current situation, in which some hardworking students who earn high grades are unaware that, even though they are successful students, they are not succeeding in the "right" type of classes. The A-G default curriculum also will provide much-needed clarity for parents.

Some people may be concerned that enrolling all students in academically challenging courses will harm those with lower achievement or lead to greater levels of dropping out. The evidence is to the contrary. Students enrolled in challenging academic classes score higher on achievement tests than students in less challenging classes, they feel more challenged, have higher aspirations, do more homework, and go on to take more advanced courses later on in high school. This may seem obvious if the students in the challenging classes are higher achieving. However, all types of students, whether or not they are among the school's highest achievers, score better when they are in challenging classes. ${ }^{85}$ In addition, students who take challenging academic courses have better prospects for high school completion (in other words, they drop out less frequently). This holds true for students who, at any point in time, have a record of high or low achievement. They are more likely to attend college, they get better grades in college, and they are more likely to graduate than comparable students who don't take A-G courses. ${ }^{86}$

An outstanding example of what can be achieved by placing all students in the college preparatory curriculum can be found in Rockville Centre School District in New York. In 1990, Rockville Centre, concerned about inequalities between the district's minority and White students, began eliminating its low-level classes and providing everyone the curriculum formerly reserved for its highest achieving students. Previously, the district's South Side High School had three levels of courses-school level, Regents, and honors. The middle school had two or more levels in each subject. As in many districts, African American and Latino students were enrolled disproportionately in the lower track. The Superintendent and Board of Education set the goal of having 75 percent of high school graduates earn the New York State Regents diploma (reserved for those passing college preparatory classes and scoring well on the state's standards-based tests). They also committed to closing the district's racial and social class achievement gaps.

During the decade of reform, the school became a U.S. Department of Education Blue Ribbon School of Excellence and one of Newsweek's 100 Best High Schools in the United States. By 2003, the gap among Rockville Centre graduates had nearly disappeared. Eighty-two percent of all African American or Latino and 97 percent of all White or Asian graduates earned a Regents diploma. In 2004, the overall Regents diploma rate increased to a remarkable 94 percent, with 30 percent of the graduating class also earning the International Baccalaureate diploma. In sum, Rockville Centre raised the bar for all students, and, as discussed below, provided them with additional support. Every group improved at the same time that the achievement gap narrowed dramatically. ${ }^{87}$

We also see similar evidence at the Preuss School, on the campus of the University of California, San Diego. Preuss is a collegepreparatory public charter school serving students from low-income backgrounds whose parents or guardians have not graduated from a four-year college or university. Preuss selects sixth grade students with high but "under-developed potential" through a lottery. Preuss graduates have gone on to some of the nation's most competitive colleges, including Berkeley, UCLA, UCSD, Harvard, MIT, Dartmouth, and Claremont. For example, $87 \%$ of the 2005 Preuss graduates enrolled as freshmen in four-year colleges- $44 \%$ in UC, $27 \%$ in CSU, $16 \%$ in private schools-and the remaining $9.7 \%$ enrolled in community colleges with an option to transfer to UC after 2 years. ${ }^{88}$

In 1998, San Jose Unified School District began enrolling all of its freshmen in A-G courses. ${ }^{89}$ By 2002—the first year that the policy affected the district's high school graduates - the percentage of graduates having completed the entire A-G course sequence with grades of C or better jumped dramatically, particularly in contrast with the flat rates in the whole of Santa Clara County and in California generally.

Figure 25:

## San Jose, CA - All Graduates Completing College Preparatory Curriculu with a "C" or Better (2001-2004)



Source: San Jose Unified School District (2006), www.sjusd.k12.ca.us/Community/Board/Public_Engagement.pdf
At the same time, placement of all San Jose high school students in A-G courses did not dampen achievement or increase dropout rates. Figure 26 shows that, not only did the district's overall achievement rates increase, the achievement gaps between racial groups decreased.

Figure 26:
San Jose, CA - State Achievement Scores Gap Reduced by 24\%, (1999-2005)


[^1]Moreover, as Figure 27 illustrates, the policy did not lower the district's high school graduation rate.
Figure 27:
San Jose, CA - Graduation Rates, 2001-2004


Source: EdTrust West, California at the Crossroads: Embracing the CAHSEE and Moving Forward, (Oakland: Ed Trust West, 2005).
A college preparatory curriculum for all students also benefits students who plan to go to California Community Colleges, to postsecondary technical training, or directly to employment. Students who complete an A-G curriculum will enter California community colleges prepared to take non-remedial college-level courses. This positions students to take immediate advantage of the community college's unique curriculum. Conversely, taking less rigorous high school courses makes it more difficult to obtain an associate's degree or a vocational certificate, or to transfer to a four-year university.

Several California districts have either passed or are considering moving to a district-wide A-G policy. In 2005, Los Angeles Unified School District adopted a policy that, beginning in 2008, enrolls all high school students in the A-G curriculum. If California were to make A-G the default curriculum statewide, it would join a growing number of states that are aligning their high school curriculum to college and work force preparation. Arkansas, Kentucky, Indiana, Michigan, New York, Oklahoma, South Dakota, and Texas have already done so, and twelve other states plan to implement these policies. ${ }^{90}$ This alignment ensures that students, educators, community members, and accountability systems all focus on the same goal.

### 1.2 California high schools offer multiple pathways for students to complete college preparation, including pathways that align and/or integrate technical courses with A-G academic courses. Students who wish to pursue technical careers must simultaneously be able to complete the courses required for UC/CSU admission.

Establishing A-G as every student's course-taking pattern should prompt creative new curricula. Nothing prevents districts and schools from developing various types of course alternatives that successfully meet the A-G course requirements. Courses that exhibit greater flexibility in pedagogy and content than now exists and still satisfy the UC/CSU criteria should be developed and approved. This does not mean watering down the courses or stepping outside the California standards. Rather, such innovation is consistent with what some outstanding schools now do, and what many schools and departments within the CSU and UC recognize as optimal. Clearly, "high standards" must not be limited to speeding up or adding more difficult materials to existing courses, using existing pedagogies, or making do with current resources.

If California schools hold their career preparation programs to both college readiness requirements and the highest workforce standards, students will graduate ready for rapid career advancement through on-the-job experience, workplace apprenticeships, and postsecondary opportunities. This means that the knowledge and skills in college preparatory academic courses and in courses leading more directly to the workplace will overlap considerably in their intellectual rigor. Career-oriented courses with
applied, "hands-on" approaches can be very effective in engaging students' interest and imparting high-level content. Similarly, students who are bound for college can benefit enormously from the cognitive demands of applying their studies to "real world" skills and contexts. "Multiple paths" does not imply a hierarchy of paths-with some more educative or rewarding than others.

Pennsylvania recently adopted a voluntary, state-supported program called Project 720, which establishes a rigorous college and career preparation curriculum for all students in participating high schools. The project includes several alternative approaches that prepare students for both college and careers: 1) work-based pathways that help students understand available career options and develop the skills needed for those jobs; 2) dual enrollment programs to earn college credit while still in high school; and 3) programs specifically designed to reconnect out-of-school youth. ${ }^{11}$

In California, a new non-profit educational organization, ConnectEd-The California Center for College and Career-is identifying, supporting and expanding pathways that prepare students for college and career, not just one or the other. As a part of its work, ConnectEd is developing high school curricula that will satisfy California's A-G requirements and connect academics with challenging career and technical learning opportunities. ${ }^{22}$

### 1.3 All California high-school programs for immigrants and English Learners include and develop their language competencies and prior education as part of college preparation.

Structures and programs designed to support English Learners (EL) in high school often erect unintended barriers to these students' college ambitions. These roadblocks can be removed in a number of ways that acknowledge the diversity in English Learners' academic and language needs, and that, where possible, build on the linguistic and academic competencies they bring with them to California schools. ${ }^{93}$ Specifically,

- Develop and use protocols to determine course equivalencies that make it possible for immigrant students who have taken equivalent courses in their home countries to receive A-G credit for them.
- Encourage EL students with strong literacy in their home language to "test out" of the A-G foreign language requirement, thus providing additional time in their high school schedule for students to develop their English and other academic competencies.
- Recognize ELD courses for "foreign language" credit and enroll advanced EL students in AP Spanish.
- Provide courses in Spanish for Spanish speakers (and other languages, where appropriate) as A-G classes. Design these courses to meet the A-G content standards for both language and literature.
- Provide online access to A-G courses in Spanish that will allow students to stay on track for college at the same time as they develop their English skills. These courses already have been developed as part of University of California's College Preparatory Initiative.
- Develop "sheltered" and SDAIE (Specially Designed Academic Instruction in English) courses in A-G subject areas that are equivalent in content and skill development to comparable courses taught in the same subject area and provide high quality instruction for these classes.
- Expand instructional time for EL students by providing opportunities for students to enroll in additional periods and/ or full-day summer school programs.
- Expand high school to five years or more for English Learners who need more instructional time both to learn English and to succeed in A-G courses.

Some of these strategies are currently in place in California, but not widely used. Notably, school districts in a pilot program in Imperial County have begun accepting a "certificate of equivalency" that Mexican students can present to receive credit for courses taken in Mexico. Additionally, the University of California's College Prep Initiative and the Colegio de Bachilleres (Mexico's high school diploma-granting education agency) have aligned the Mexican online curriculum with California standards, so that students who take these courses can receive A-G credit for them.

### 1.4 California high school students may enroll concurrently in appropriate community college courses, particularly those that provide advanced course work in the A-G subjects.

High schools can establish agreements with their local community colleges that enable students to enroll concurrently in community college courses that meet college entrance requirements and provide weighted grade points and college credit. Ideally, some of these courses would be held on the high school campus. While concurrent enrollment programs might offer a broad array of courses, the focus should be on those that meet college A-G requirements. All fiscal and policy roadblocks that would inhibit this should be removed.

### 1.5 State high school assessments are aligned to college admissions and placement tests.

Students need to enter college ready for college-level courses. Currently many students begin college not knowing whether they are ready to benefit from college-level instruction. When they enroll in college they do take an assessment test; however, this is too little information, too late in the education pipeline. To correct this problem and to give students, families, and educators better information about what students need to be college-ready, the tests used to measure high school students' progress toward proficiency for state and federal accountability purposes should be aligned with university placement tests.

The Early Assessment Program (EAP) used by CSUs is one example of this alignment in California. The CSU system, California's public schools, the California Department of Education, and the State Board of Education created an assessment based on the $11^{\text {th }}$ grade California standards tests in English and math, a writing sample, and higher order test questions. Students who score well enough are exempt from further CSU placement tests. Students who score too low can improve their skills during their senior year of high school and prior to entering CSU. CSU provides help to all public high school students who do not reach the threshold required for university-level work.

This program could be expanded to include all California high school students. However, this new exam carries some risks if it is not used strictly to provide important diagnostic information for those who need extra help. It should not be used as an early sorting mechanism to determine which students may or may not do well in college. The EAP or an assessment like it should not be another barrier to high school graduation.

## 2. Fully Prepared Teachers in College Preparatory [A-C] Courses

### 2.1 All teachers of college preparatory [A-G] courses are fully credentialed in the sulbject matter of the course.

No more than $5 \%$ of teaching assignments in any A-G subject area at any school should be "out of field" (teachers assigned to teach classes in subjects in which they have not met state subject matter requirements), and no more than $10 \%$ of teachers should have emergency credentials or be participants in the intern program. To achieve these goals, schools need to provide incentives to recruit and support highly trained teachers to schools with low A-G eligibility rates and low four-year college enrollment rates. Such incentives and inducements might include:

- Lower class sizes in A-G courses.
- Provide financial "bonuses" to fully qualified teachers who agree to teach for 3-5 years in shortage subjects in low college-participation schools.
- Hire teams of five or more fully qualified teachers who are committed to working together and creating higher rates of college eligibility and college-going. ${ }^{94}$
- Create conditions in which all educators who are fully qualified in high-need A-G subjects teach for some portion of their work responsibilities, even if their primary assignment is as an administrator, resource teacher, or other non-teaching role. When necessary, hire additional staff to assume selected duties of these personnel, so maximum teacher resources can be allotted to the classroom.
- Make schools safe and supportive working environments for teachers. Clean and safe facilities, administrative support, smaller class sizes, sufficient resources for students and inclusion of teachers in school policy decisions all contribute positively to teacher recruitment and retention. ${ }^{95}$


### 2.2 All teachers participate in ongoing professional development that prepares them with the content knowledge and pedagogical skills to teach rigorous college preparatory courses to diverse groups of students.

Teachers in A-G subject areas should complete and engage in on-going professional development that provides knowledge and teaching strategies that enable them to teach advanced academic courses to diverse groups of students. This can only be productive in a professional climate in which continuing teacher education is viewed as a routine and affirming aspect of teachers' work rather than an extraordinary intervention and burden. Specifically, teachers must have 1) deep subject-matter knowledge; 2) training to teach demanding content to diverse groups of students-e.g. differentiated instruction, complex instruction; 3) roles in developing a college-going culture; and 4) competence in bridging students' home language and culture to "college knowledge." This is likely to require a state or countywide cadre of subject matter professional development providers, as many schools and districts do not now have expertise in this sort of professional development. The California Subject Matter Projects currently provide an infrastructure for such professional development.

Additionally, teachers should have clinical learning opportunities in which they hone their knowledge and teaching skills in the context of working with students needing extra academic support (see below). These clinical experiences can occur after school, on Saturdays, or during the summer.

### 2.3 A specially educated core of "College Opportunity Teachers" provides assistance to the school as it increases the rates at which students graduate ready for four-year universities.

Under the auspices of UC and CSU, teachers could earn advanced certification upon the completion of graduate coursework in the following areas: a) subject-matter pedagogies; b) teaching subject matter to diverse groups of students; and c) college advising. Upon completion, teachers could receive a course reduction to work with students and other teachers and/or receive a stipend as long as they remain in low A-G eligibility schools. ${ }^{96}$ This core of teachers could be a part of the professional development cadre described above in 2.2.

## 3. A Rohust Academic Support Infrastructure

Schools must provide a strong academic support infrastructure to ensure meaningful access to college preparation. Schools can adopt the following or other strategies to fit their school context.

### 3.1 Small learning communities ease gth graders transition into high school.

A successful start in high school is often key to students' persistence and academic success. Large high schools should schedule students into $9^{\text {th }}$ and/or $10^{\text {th }}$ grade teams (or "small learning communities") and distribute the schools' strongest teachers across these teams. Within these communities, teams of teachers share responsibility for groups of students; they teach smaller classes within block schedules that create longer class periods. The Preuss school, San Jose Unified School District, and the Pennsylvania Project 720 all employ these strategies.

### 3.2 Additional academic instruction and support huilt into the master schedule replaces "remediation" and repeating subjects.

A number of student supports are needed to avoid ineffective remedial work or a discouraging cycle of failing and repeating classes. These supports or classes must be staffed by A-G qualified teachers and supported with tutors. Rockville Centre School District in New York, the Preuss School in San Diego, San Jose Unified School District, and Pennsylvania's Project 720 all have built such components into the school's schedule.

- Provide "backup" or shadow classes for students who need additional support to keep up with the demands of rigorous academic classes.
- Schedule a "tutoring period" into the school day in which all students get additional help from teachers.
- Lengthen the school day so that extra support classes can be scheduled in what is currently before and after school time.


### 3.3 Summer school is available to all students, including "bridge" classes that give students a "head start" in rigorous academic classes.

Middle and high school students lacking the academic preparation to succeed in A-G courses should be provided summer classes that prepare them for the A-G curriculum. Such classes may help students develop basic academic competencies (e.g., to pass the high school exit exam) or give them a "head start" in the college preparatory curriculum they will be expected to learn during the next academic year. This strategy is widely used by schools and districts providing college preparation for all students. Importantly, these summer opportunities require fully qualified teachers, appropriate class sizes, and properly air-conditioned facilities.

### 3.4 The senior year includes additional coursework for students to become proficient on college placement tests and/or to hegin college-Ievel courses.

Many high school seniors finish most of their high school graduation and A-G requirements before their final semester, and then take only a minimum number of courses and attend school for only part of the day. This unused time could be used to provide additional coursework for students who do not demonstrate proficiency on college placement tests in academic subjects (English and mathematics). That way, far fewer students would arrive at college needing remedial instruction before they can take college-level courses. Those seniors who are proficient should have the option of taking college courses. ${ }^{97}$

## 4. Effective College Counseling

Educators who believe that all students can (and should) have the opportunity for college are important for a college-going school culture. But beliefs alone are not enough. Schools need well-qualified counselors to regularly assess whether students are on track to attain their goals and provide counseling and encouragement. These supports would start in middle school and be provided by middle school specialists. Certainly, the supports would continue since students need this counseling in the ninth grade and throughout high school. Students' chances of enrolling in a four-year college are far greater when school adults actively support students and their families through the college choice and admissions process, as opposed to merely disseminating information via copied materials or large meetings.

### 4.1 The student-counselor ratio does not exceed 200:1.

Low-income students and students of color lack access to knowledgeable and skilled school adults who build trust with them and their families. ${ }^{98}$ Early on, counselors can profoundly enhance student college aspirations, plans, and knowledge of financial aid. In high school, counseling can reduce anxiety, provide help with college applications and essays, ready students for the rigors of standardized testing and interviews, help select among the wide range of college options, and maintain professional
networks with college admissions officers. In sum, access to adequate counseling enhances students' chances of enrolling in college. These supports are particularly important for potential first-generation college attendees and those whose families can not afford private college counseling. ${ }^{99}$

The American Counselor Association (ACA), American School Counselor Association (ASCA), American School Health Association (ASHA), National Education Association (NEA), and the California Teachers Association (CTA) all recommend a student counselor ratio of 250 to 1 . We recommend lower ratios ( 200 to 1 ) in schools with low A-G eligibility and low four-year college-going rates in order to ensure that counselors and teachers have sufficient time to build their capacity for meeting the individual circumstances of first-generation college students, families with financial constraints, immigrant students, and others.

### 4.2 All counselors have formal training in college counseling.

All middle and high schools need counselors who have the time and skills to accomplish the following: 1) structure information and organize activities that foster and support student college aspirations and an understanding of college and its importance; 2) assist parents in understanding their role in fostering and supporting college aspirations, setting college expectations, and motivating students; 3) assist students in academic preparation for college; 4) support and influence students in decision-making about college; and 5) focus the school on its college mission. ${ }^{100}$

### 4.3 Professional development in building a "college-going culture" is provided to all administrators, teachers, paraprofessionals, counselors, and counseling staff.

All high school counselors need to stay informed and current in the ever-changing and complex college admissions and financial aid processes. But all of the other educators in high schools with low rates of A-G eligibility and four-year college enrollments also need special training that prepares them to guide students toward college. This training must include skills necessary for implementing school-wide efforts to promote college access and preparation; providing parents with information and strategies for supporting college-going; coaching students to successfully navigate college admissions procedures and polices; and connecting academic subject teaching with information about aspirations for college-going. Critically important is that this staff-wide training must be culturally sensitive and focus on strategies for preparing diverse groups of students for entry into California's public and independent colleges. This professional development can be included among that provided by the statewide cadre of professional developers described earlier in recommendation 2.2.

## 4.4 "College Knowledge" curriculum tools enable educators to create a college-going culture.

To assist counselors and teachers in their efforts to create a college-going culture, curriculum packages must be available that focus on "college knowledge." Teams of counselors, teachers, and university admissions personnel should produce these tools, drawing on such already available materials as the College: Making it Happen guide produced by the Inter-segmental Coordinating Committee of California's Education Roundtable. ${ }^{101}$

The use of these tools can be most effective if college preparation knowledge and tasks are incorporated into a high school graduation plan (e.g. a portfolio of work which includes tasks that reflect college knowledge and preparation of a sample college application essay). However, these materials should also be made available to families. ${ }^{102}$

### 4.5 Students and families are consistently given specific information about their individual progress toward college eligibility.

The state should develop and require schools to provide reports to parents that track individual student's progress towards CSU/ UC eligibility every year of high school. The University of California has been working for several years to develop a transcript evaluation system that will make it possible to assess the progress of each of the state's high school students through the AG trajectory. The system will provide real-time feedback to students, parents, and school personnel where it is necessary to improve outcomes for individuals and groups of students. Such a system has the potential to send notices home when students
fail to register for or successfully complete necessary coursework, and to map out corrective strategies. It could provide a simple, one-line report of A-G completion progress on every student report card. It should include a summary of existing school and community support programs. And finally, it would be able to keep teachers, counselors and principals apprised of troubling bottlenecks in their college preparatory curriculum - courses in which qualified students (or groups of students) tend not to advance at rates comparable to those at other schools.

### 4.6 Advisory classes and other opportunities enable students to develop supportive relationships with teachers and administrators that are sustained throughout the high school years.

Advisory classes, scheduled as part of the regular day or during extra class periods before and after school, provide a place for adults to guide students through the college preparatory curriculum, provide "college knowledge" and encouragement, offer "test prep" for college admissions tests, assist students as they choose and apply to colleges, and help students locate and apply for financial aid. ${ }^{103}$ Advisory classes can also construct peer groups that help create and support a culture for adolescents where college-going and hard work is the norm. ${ }^{104}$

Many schools currently offer AVID programs that serve these functions, but these programs are not typically school-wide programs such as we recommend here. ${ }^{105}$ In Pennsylvania's Project 720 schools, a staff member follows each student throughout high school. Advisors help students and families plan their transition into college, complete financial aid applications, and work with them to become aware of their strengths and find help when they need it.

### 4.7 Local community based organizations engage as partners in providing workshops to families in the college preparation, admissions, and financial aid process.

Connections between schools and families should build on parents' cultural strengths and consider them a valuable education resource for students. Community-based organizations, including churches, boys' and girls' clubs, and neighborhood organizing groups, often have the trust of local families and can serve as knowledgeable liaisons. They can help schools establish and maintain ongoing, respectful, and substantive communications between schools and families. Going beyond the school meeting for parents, community organizations can help organize seminars, workshops, and other outreach efforts to help parents gain the tools for understanding and negotiating the pathway to the post-secondary education system. ${ }^{106}$ These out of school organizations can tap into community resources as well as communicate to parents in culturally and linguistically appropriate ways about the necessary knowledge and skills for supporting students in A-G courses, taking college entrance tests, applying to college, and obtaining financial aid. ${ }^{107}$

## 5. College Preparatory Culture and Conditions in Elementary and Middle Schools

Students in elementary and middle school also need focused academic curriculum, highly effective teachers, guidance, and academic and social support. For example, New York's Rockville Centre District began its reform by providing all middle school students the accelerated middle school math curriculum. It provided support classes and after-school tutoring to help struggling students. The following year, over 90 percent of the incoming freshmen, excluding the special education students, entered the district's South Side high school having passed the first Regents math examination. The achievement gap dramatically narrowed as the percentage of African American or Latino students passing the algebra-based Regents exam in the eighth grade tripled, rising to 75 percent. The following year, the special education students were included, and subjects other than math were accelerated for all students.

California elementary and middle schools should provide age-appropriate adaptations of all of the elements of successful high schools recommended in 1-4 above.

### 5.1 Middle school courses provide rigorous, academic, college preparatory "pipeline" curricula.

# 5.2 Middle school courses are taught by teachers certified in the subject matter of their courses and who have the pedagogical skills that make rigorous academic content accessible to diverse groups of learners. 

### 5.3 Middle schools student-counselor ratios do not exceed 200:1.

### 5.5 Tutoring and other intensive academic supports ready students for college preparatory high school courses.

## 6. "Second-Chance" College Preparatory Opportunities Beyond Traditional High Schools

Not all students will be able to navigate the traditional high school successfully—especially in the short term—even with all of the recommendations made in this report. For that small portion, alternative programs should be available that offer a variety of non-traditional ways for students to prepare for college.

Examples of such programs exist, in California and elsewhere. The Met Schools, originating in Rhode Island but recently expanded to California, is an alternative approach to high school that provides an example of what "second chance" opportunities could be like. The Met Schools have developed an approach that combine the traditional academic curriculum with learning experiences in the community and with community resources. Met schools (currently in El Dorado, Oakland, Sacramento, and San Diego) enroll fewer than 150 students, and the teacher-student ratio is one to 15 or smaller. Students spend two days a week in one-on-one mentorships at private and public enterprises. For example, students at the Oakland Met school are mentored by professionals at Bay Area Legal Aid, Youth Radio, KDOL-TV 27, Youth Outlook, Oakland Animal Shelter, La Clinica Alta Vista, Chabot Space and Science Center, and the Museum of Children's Art. Nearly half of all MetWest students enroll in classes at nearby Laney College, Oakland's community college. An advisory teacher is responsible for the same group of students over four years, and the advisory class provides opportunities for students to link their mentorship experience to academic content and skills. Notably, the Met curriculum has recently been approved as meeting the A-G college preparatory curriculum requirements. ${ }^{108}$

## 7. Accountahility and Public Engagement around College Preparation

California's accountability system must provide the public with information about how well schools prepare students for college. This requires new information, new processes for reporting, and new strategies for engaging all parents and the broader public.

### 7.1 Information about high school students' college preparation and high school graduates' college participation is regularly collected and analyzed.

In addition to knowing how many students are completing the A-G requirements, California needs to understand whether parents and students have the support and information they need to prepare for college. One strategy for gathering such information comes from Rhode Island, where the State conducts an annual survey of students, parents, and educators at each of its public schools and then reports the results as part of its state accountability system. ${ }^{109}$ California surveys can reveal which schools give students access to a full college preparatory curricula, whether students are encouraged and helped to enroll in four-year colleges, what college information parents receive, and much more.

### 7.2 Indicators that 'grade' the quality of college preparation and participation are reported on state and school report cards.

California needs indicators that show "at a glance" how well schools provide college opportunities relative to a set of state standards. New indicators should include information on the availability of A-G and advanced courses, access to well-trained teachers in different subject areas, the degree and nature of participation from parents and community, the average time students spend with a counselor, college preparation and four-year university enrollment rates, and more. The state should develop a template report card for each district as a whole and for each school to be sent out to parents, community and students, and local districts should report these data annually to the state.

Los Angeles Unified School District is planning to issue annual school report cards reporting the progress of each middle and high school under the district's new A-G policy. Indicators will focus both on students' successful completion of A-G courses, but also on the conditions and opportunities at each school. Included, for example, will be measures of the percentage of A-G classes taught by fully certified teachers, percentage of science classes taught in fully equipped laboratories, number of career and technical classes that satisfy one of the A-G requirements, and class sizes in algebra.

### 7.3 Parents and community members review the local college preparation report card at annual public forums and participate in holding local schools accountable.

Public engagement is essential for using data in ways that ensures implementation of practices that increase access and support. One model for this activity is San Jose Unified School District's Community Conversations, in which members of the school community reflect on the results of their climate survey and address such questions as: What skills are important for students to do well? How can we assess our support for student learning? What can we do to make our schools a caring place? What is the relationship of school climate to student achievement? How do we create "A College-going Culture?" Communities informed about college preparation will be better positioned to support a college-going culture in their family, school, and community.

Public engagement is also essential for holding various levels of the education system accountable. Parents and other members of the public should be actively involved in tracking the college preparation offered in California's schools. In addition to providing valuable information on school quality, they can press the system to live up to a set of statewide standards. Parents also need a formal process to report any serious problems with schools' provision of college preparation conditions and opportunities. This process should ensure that information from the complaint is reviewed at the school, district, and state level. In this way parents will know that their concerns are heard and addressed in a timely manner.

## 8. Revised Higher Education Policies that Increase the Number and Diversity of California Students who Attend and Complete Degrees at the State's Four-Year Public Universities.

Our first seven recommendations aim at bringing fairness to California students' opportunities to prepare for college, both by strengthening the $\mathrm{K}-12$ system as a whole and by eliminating the curriculum, teaching, and guidance advantages that most of California's White and Asian students currently enjoy. These concrete roadblocks are under the control of policymakers and educators. Policies create and perpetuate them, and policies can remove them. This set of recommendations focuses on the state's higher education system, where new policies are required to ensure that the state provides fair college-going opportunities to California's students whose high school success demonstrate their ability to succeed in higher education.

### 8.1 Eligibility and admissions criteria eliminate the effect of racial preferences in K -12 education.

To make access to college genuinely fair, California's public higher education must alter its eligibility and admissions criteria in ways that eliminate the effect of the racial advantages of $\mathrm{K}-12$ education on students' chances of being admitted to a fouryear university. Instituting a more comprehensive and educationally sound admissions system is likely to correct, in part, the representational imbalance that now exists. In particular, the faculty of the University of California must rework its policies to ensure that students from all sectors of the diverse state are included.

### 8.2 A revised California Master Plan for higher education permits far more high school graduates to enroll in four-year public universities.

Some readers responded to our earlier California Opportunity Report: Roadblocks to College with the observation that California schools do prepare sufficient numbers of students to meet the state's 1960 Master Plan for Higher Education. ${ }^{110}$ According to that plan, the University of California (UC) is meant to serve the top one-eighth of high school graduates and the California State University (CSU) system the top one-third. Other students seeking a four-year college degree could attend one of the state's many community colleges for two years and then transfer to a UC or a CSU. If we prepared more students for four-year colleges, they argued, we wouldn't have enough room on the state's campuses to accommodate them.

The answer to that is clear. California also needs to increase the percentage of California high school graduates who are eligible to attend UC and CSU and to expand the capacity of the higher education system to accommodate them. What was a reasonable percentage of high school graduates who should be eligible for four-year universities in 1960 is no longer true-in terms of both the needs of the workforce and the aspirations of students and families. Moreover, the only ethical and politically feasible way of providing access to those now denied is to make sure that there are enough seats to also accommodate those who are eligible under the current policies. We must disrupt the intense competition for scarce positions in higher education-a competition that is currently shaped by clear, if unspoken, racial preferences in K-12 schooling.

### 8.3 Students who hegin their nost-secondary education in two-year institutions are provided the necessary resources to make a fluid and timely transition to a four-year institution.

Many students access California's public higher education system through community colleges. These two-year institutions can play an important role in the education attainment of students. However, as we showed earlier in this report, only a small fraction of students are transferring from community colleges to four-year colleges and universities. Community college students need many of the same supports needed to prepare high school students for attending an university: rigorous academic preparation, counseling about transfer criteria and general program coursework, as well as information about financial aid and academic programs at four-year institutions. The Transfer Alliance Program (TAP) is one example of a successful program intervention across community colleges ${ }^{111}$. TAP is a collaboration between UCLA and California Community Colleges to ensure that more students are enrolling in coursework that prepares them for transfer to four-year institutions, while completing general education requirements and preparatory courses for their selected majors. TAP also provides students with increased access to community college faculty and counselors, as well as networks and resources at UCLA. All community college students interested in transferring to four-year institutions should have access to these kinds of supports.

## 9. Sufficient Funding to Support these College Opportunity Policies

Many of these recommendations cannot be adequately implemented without more funding for K-12 education. The 10 states which sent the highest proportion of $12^{\text {th }}$ graders to four-year colleges spent an average of $\$ 9,353$ per student. In contrast, the 10 states that sent the lowest proportion of $12^{\text {th }}$ graders to four-year universities spent only $\$ 7,281 .{ }^{112}$

California currently spends $85 \%$ of the national average for each student when regional cost of living differences are taken into account. ${ }^{113}$ This places California $43^{\text {rd }}$ of all states in per pupil expenditures. This low level of funding, taken together with California's relatively high salaries for teachers and counselors results in the hiring of fewer teachers and counselors. This means that California's high school teachers and counselors serve more students than educators in any other state. ${ }^{114}$

While it is clear that California invests less than most states and far less than states with high levels of four-year college enrollment, there is not presently enough information to determine how much additional funding California needs. This is information that is needed for long term planning, but for the short term it is safe to assume that an immediate infusion of resources is urgently required in nearly every aspect of California schools.

Such a determination requires that California should conduct a detailed study to determine what levels of resources are needed to ensure college opportunities to all California students and how much these resources would cost. This sort of a study is often referred within education finance circles as a 'costing-out' study. Since 1991, 35 states have conducted costing-out studies. ${ }^{115}$

Such a study should consider the variable funding levels required to achieve this end in particular school communities and for particular students. This nuanced analysis is important since one programmatic goal may require different supports for different students. For example, San Jose Unified's former superintendent Linda Murray reports that when her district created conditions for all students to succeed in an A-G curriculum, it earmarked roughly $\$ 250$ per student in schools with lots of challenges and $\$ 25$ per student in schools with few challenges. ${ }^{116}$

California would follow the lead of other states in increasing its fiscal support specifically for fair college preparation. Pennsylvania, for example, has provided substantial new money to fund its comprehensive Project 720 approach. Massachusetts and other states have done the same.

In addition to extra funding for K - 12 reforms, additional funding will be required to increase the number of seats in CSUs and UCs. As we argue below, all of these funds will be investments that yield California a significant return, in both economic and social terms.

## Conclusion

These recommendations are likely to spark controversy, and not only because they require new resources. Some critics are likely to assert that providing college preparation for all is not a reasonable policy goal. Some may argue that many jobs don't require a college education and that many students lack the motivation or talent for college. Such responses raise key questions about the future of education in California: Should Californians be concerned about roadblocks that impede students' preparation for college? Does it matter to the state that these roadblocks affect some groups of students more than others? How might California benefit from an education system that enables all K-12 students to take advantage of a college education? Should college preparation be limited by the current number of seats available in public colleges, or should the state anticipate that an "upward" pressure by greater numbers of qualified students would result in expanding college opportunities beyond current capacity?

Answers to some of these questions can be found in recent analyses linking college preparation to the future well being of students and to society as a whole. ${ }^{117}$ Today, college preparation readies young people for flexible, adaptable, creative, and powerful adult roles in a knowledge-based society. Although providing such preparation only to one-third of the state's K-12 students may have made sense a half century ago (when California developed its Master Plan for Higher Education), it no longer does.

Compelling economic arguments exist for expanding college access. Providing all students access to college preparation readies them for the competitive labor market and ensures California's capacity to be vital and relevant in a global marketplace. Jobs that provide the income necessary to support a family increasingly require postsecondary education. A recent policy brief by the Education Commission of the States reports that "most Americans-not just parents-believe that having a college degree is important for economic success." ${ }^{118}$ They cite a 2003 survey commissioned by Jobs for the Future, in which 9 of 10 respondents, when told that $29 \%$ of students who start high school will eventually graduate from college, said this was a "very" ( $63 \%$ ) or "somewhat" (27\%) serious problem. ${ }^{119}$

Although the arguments heard most frequently are economic ones, post-secondary education helps students do more than gain personal financial security and add to the state's economic vitality. Providing all students access to college preparation can enable all California communities to participate robustly in shaping California's civic life. Through post-secondary education, students gain a greater sense of self, intellectual and interpersonal competency, more tolerant views about differences in others, and by doing so they also become members of a more informed public. ${ }^{120}$

Ten years after the passage of Proposition 209, the Public Policy Institute of California's public opinion survey on education found that inequities in California schools are of grave concern to the public:

The quality of education in lower-income areas is another cause of high concern for Californians, and support for policies to help schools in these communities is widespread. Eighty-six percent of residents are at least somewhat concerned about students in lower-income areas dropping out of high school, and most ( $71 \%$ ) support addressing the problem by increasing the number of support staff in these schools - even if it costs the state more money. Most residents ( $78 \%$ ) are also concerned that lower-income students are more likely to fail the high school exit exam. Most ( $72 \%$ ) also favor providing those students who fail initially with additional resources such as smaller classes and fully credentialed teachers - even if it costs more. About half of Californians (49\%) believe the state should give more funding to schools in lower-income areas, even if it means less funding for other schools. Asians ( $72 \%$ ) support this idea far more than any other group (Blacks $57 \%$, Latinos $52 \%$, Whites $45 \%$ ). ${ }^{121}$

The evidence we've presented in this report shows that Prop 209 has failed to deliver on its promise to eliminate racial favoritism and preferences. In many respects, California is farther from offering equal opportunity for all students than it was ten years ago. Worsening inequities, combined with the prohibition of the use of race in university admissions, have steadily widened the gap between California's White and Asian students, on the one hand, and its African Americans, Latinos, and American Indians, on the other. Proposition 209 was not the answer for providing California students with an equal opportunity to realize the universal California dream of a college education, but solutions do exist, and they are not beyond our means, our intelligence, or our imaginations.

1 J. Rogers, et. al., Roadblocks to College: California Educational Opportunity Report, 2006 (Los Angeles: UCLA/IDEA, UC/ACCORD, 2006), www.ucaccord.org.
2 Throughout this document, we use the term "Latino" to refer to those Californians who are also referred to by other general terms, such as Hispanic. This group includes a wide array of sub-groups, many of whom are also referred to by other terms, such as Chicano(a)s, Mexican-Americans, Central American immigrants, etc.
3 Survey data show that students' academic expectations tend to be exceedingly optimistic relative to realistic opportunities for educational advancement. Whereas only about $50 \%$ of high school students ultimately attend college, nearly $90 \%$ report that they expect to complete college when asked in $10^{\text {th }}$ grade, even in school systems that serve the least affluent populations in the country. D. Silver, M. Schwab-Stone, and M. Seltzer, A Multilevel Model of School Dropout, Presented at AERA (New Orleans: April, 2000).
4 S. Valladares, 2006. Challenges in the Tenure Process: The Experiences of UC Faculty of Color Who Conduct Social Science, Race-Based Academic Work, Unpublished doctoral dissertation, (Los Angeles: University of California, Los Angeles, 2006).
5 Rogers, et al. 2006.
6 The National Center for Higher Education Management Systems, Change in Representation of African-Americans and Hispanics from High School to College Completion, (www.higheredinfo.org).
7 College Board, Higher Education Landscape (2006), accessed on 3/5/06 at www.collegeboard.com/highered/res/hel/hel.html.
8 See also, E.M., Bensimon, L., Hao, and L.T. Bustillos, "Measuring the State of Equity in Higher Education," in Leveraging Promise and Expanding Opportunity in Higher Education," ed. P. Gandara, G. Orfield, and C. Horn (Albany: State University New York Press). California Postsecondary Education Commission, Are they Going: University Enrollment and Eligibility for African Americans and Cbicano/Latinos (Sacramento: CPEC, 2005).
9 University of California, A Master Plan For Higher Education In California, 1960-1975, Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California (Sacramento: California State Department of Education, 1960), http:// www.ucop.edu/acadinit/mastplan/MasterPlan1960.pdf.
10 California Postsecondary Education Commission, www.cpec.ca.gov.
11 California Postsecondary Education Commission, Student Profiles (2003), www.cpec.ca.gov.
12 The National Center for Higher Education Management Systems.
13 R. Wassmer, California Community College Transfer Rates: Policy Implications and a Future Research Agenda, A Quantitative Study (Sacramento: Senate Office of Research 2003), www.sen.ca.gov/sor/reports/reports_by_subj/education/communitycollegetransfer.pdf. Note that other researchers have calculated higher rates.
14 A., Trujillo and E., Diaz, "Be a name, not a number: the role of cultural and social capital in the transfer process," in Community Colleges as Cultural Texts: Qualitative Explorations of Organizational and Student Culture, ed. K. Shaw, J. Valadez, and R. Rhoads (Albany: SUNY Press, 1999).
15 B. R. Clark, "The Cooling-Out Function in Higher Education," The American Journal of Sociology, 65 No. 6 (1960), pp. 569-576.; L. I. Rendón and Garza," Closing the Gap Between Two and Four-Year Institutions," in Educating a New Majority: Transforming America's Educational System for Diversity, ed. L. I. Rendon and R. Hope (San Francisco: Jossey-Bass, 1996); R. A. Rhoads and J. R. Valadez, Democracy, multiculturalism and the community college: A critical perspective, (New York: Garland Press, 1996).
16 K. J. Dougherty, The Contradictory College: The Conflicting Origins, Impact, and Futures of Community College (Albany: New York State University Press, 2001).
17 For example, the most competitive UC campuses are Berkeley, UCLA, and San Diego; among the CSU, the most competitive campuses are CSU San Luis Obispo and San Diego State University. The least competitive UC campuses are UC Santa Cruz, UC Merced, and UC Riverside; among the least competitive CSU campuses is CSU Dominguez Hills.
18 University of California, (http://www.universityofcalifornia.edu/admissions/undergrad_adm/selecting/camp_profiles/)
19 For more information on the impact of education policy on creating differential outcomes for students, see F. Contreras, Merit as a Moving Target in Post-Proposition 209 UC Admissions, Public Policy Series \#5 (Los Angeles: UC/ACCORD, 2004), available on the UC ACCORD website, www.ucaccord.org.
20 In a few cases, the graduating class is a few students larger than the $9^{\text {th }}$ grade class. In such cases, we report that for every $1009^{\text {th }}$ graders there were 100 graduates.
21 CORs for the years 2000, 2002, and 2004 are available on the ACCORD website, www.ucaccord.org.
22 University of California Board of Admissions and Relations with Schools, Inclusiveness Indicators (Oakland: University of California, 2006), ucaccord.gseis.ucla.edu/indicators/PDF/Inclusivenessreport.pdf.

23 The availability of Advance Placement Courses factor into this differential preparation, for more information on this topic see, R. Brown, Changes in Advanced Placement Test Taking in California High School, UC ACCORD Public Policy Series (Los Angeles: UC ACCORD, 2004), available on the UC ACCORD website, www.ucaccord.org.

24 University of California Board of Admissions and Relations with Schools, 2006.

25 That is a small fraction of either the 1014 comprehensive high schools in the state or the total of 1880 California schools that produced high school graduates. In 2004, 1014 high schools identified themselves "high schools" and reported to the state that they serve either grades 9-12 or 10-12. We use these 1014 schools as the basis of the new analyses in this report, since these are comprehensive schools that have college preparation as part of their mission. The more inclusive UC BOARS analysis of 1880 public schools serving high school students included several categories of schools, including schools identified in the California Basic Education Data System (CBEDS) as K-12 Schools, Alternative Schools, Continuation Schools, County Community Schools, Community Day Schools, County Youth Authority Schools, Juvenile Hall Schools, Opportunity Schools, and Special Education Schools.
26 The number of schools producing $20 \%$ of the high school graduates has increased primarily because the overall number of California schools producing high school graduates has increased from 1725 in 2001 to 1880 in 2004. Thus, the schools in the table represent approximately $10 \%$ of all schools each year.
27 University of California Board of Admissions and Relations with Schools, 2006.
28 We borrow the term "intensely segregated" from G. Orfield and C. Lee, Racial Transformation and the Changing Nature of Segregation (Cambridge: Harvard Civil Rights Project, 2006).
29 For more information about school segregation in California, see J. Rickles, P. Ong, and D. Houston, School Integration and Residential Segregation in California: Cballenges for Racial Equity, UC ACCORD Public Policy Series \#2 (Los Angeles: UC ACCORD, 2004), available on the UC ACCORD website, www.ucaccord.org.
30 Rogers, et. al. 2006.
31 The 2004 COR indicators for every California school can be found online at www.ucaccord.org and www.ucla-idea.org.
32 University of California Board of Admissions and Relations with Schools 2006;
To perform this analysis, BOARS calculated the number of African American, Latino, and American Indian students that would have been admitted in a particular year, if these groups were admitted at the average rates for California public high school graduates. They then analyzed the gap between that number and the number actually admitted to determine whether the shortfalls could be attributed to differences among schools or within them. The result was that, in 2004 for example, 9,969 fewer of African American, Latino, and American Indians were admitted to UC than would have been the case if students from these groups were admitted at the overall rate of admission for public high school graduates ( $12.74 \%$ ). Of this total, more than half of the 9,969 gap ( 5,633 students) could be attributed to the fact that African American, Latino, and American Indian students are concentrated in schools that prepare students for UC at much lower rates than school with large White and Asian populations. The remainder of the gap ( 4,336 students) resulted from the fact that, even when they attend the same high schools, White and Asian are more likely to graduate with college preparation than are African American, Latino, and American Indian students. Interestingly, however, not all groups are affected in the same way by within-school and betweenschool differences. The UC BOARS analysts found that, for Latino graduates, about $60 \%$ of the gap could be explained by their attendance at schools with low preparation rates, and the other $40 \%$ by their lower rates of preparation within high schools. For African American students, in contrast, about $60 \%$ of the gap results from their lower rates of preparation within high schools, and $40 \%$ from their attendance at schools with lower overall preparation rates.
33 Other states also experience these gaps. However, because the overall college-going numbers in other states are better, all racial groups do relatively better than in California.
34 For a review of the research on these conditions, see J. Oakes, J. Mendoza, and D. Silver, "California Opportunity Indicators: Informing and Monitoring California's Progress Toward Equitable College Access," in Expanding Opportunity in Higher Education: Leveraging Promise, eds. P. Gándara, G. Orfield, and C. Horn (Albany: State University of New York Press, 2006).
35 These analyses were based on publicly available data about school conditions in 2004.
36 For further information about how to increase the quality of teaching, see H. Duffy, Treat Teaching as a Learned Profession, UC ACCORD Public Policy Series \#9 (Los Angeles: UC ACCORD, 2004), available on the, website, www.ucaccord.org.
37 Having well prepared teachers is especially critical for English Learners. To learn more about ELs and mathematics learning, see C. Lager, Unlocking the Language of Mathematics to Ensure our English Learners Acquire Algebra. UC ACCORD Public Policy Series \#8 (Los Angeles: UC ACCORD, 2004), available on the UC ACCORD website, www.ucaccord.org. Within this article, Lager states that mathematics serves as a gatekeeper to higher education for English Learners for a variety of reasons, including misunderstandings of vocabulary and syntax and problems following visual cues in text, as opposed to strictly mathematical errors.
38 B. Parsad, et. al., "High School Guidance Counseling," Education Statistics Quarterly, 5 No. 3 (2003), (http://nces.ed.gov/surveys/frss/ publications/2003015/)
39 J. Oakes, Keeping Track: How Schools Structure Inequality (New Haven: Yale University Press, 1985, second edition 2005).
40 California Basic Educational Data System. This analysis includes schools enrolling students in grades 9-12 or 10-12 that are designated as High Schools (1012 schools) or State Special Schools (2).
41 C. Adelman, Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment, Office of Educational Research and Improvement (Washington, D. C.: U.S. Department of Education, June 1999); C. Adelman, The Toolbox Revisited: Paths to Degree Completion from High School through College (Washington, D. C.: U.S. Department of Education, 2006).

42 See, for example, R. Balfanz, J. McPartland and A. Shaw, Re-conceptualizing Extra Help for High School Students in a High Standards Era (Baltimore: Center for Social Organization of Schools, Johns Hopkins University, April 2002).
43 J. Oakes, "Two cities: Tracking and Within-School Segregation," Teachers' College Record, 96 (1995), 681-90, 1995; S. R. Lucas, Tracking Inequality, (New York: Teachers College Press, 1999); K. Welner, Legal Rights Legal Wrongs: When community control collides with educational equity (Albany: State University of New York Press, 2001).
44 Daniel v. California, No. BC214156.
45 E. Zarate and H. Pachon Gaining or Losing Ground? Equity in Offering Advanced Placement Courses in California High Schools 1997 - 2003 (Los Angeles: Tomas Rivera Policy Institute, 2006).

46 Oakes 2005.
47 Oakes 2005.
48 R. M. Callahan, "Tracking and High School English Learners: Limiting opportunity to learn." American Educational Research Journal, 42 No. 2 (2005), pp. 305-328; R. M. Callahan and P. Gandara, "Nobody's Agenda: English learners and post-secondary education," in Immigrant and English-Language Learners: Strategies for Success," ed. M. Sadowski (Cambridge: Harvard Education Press, 2004); Y. S. Xiong, and M. Zhou, "Structuring Inequity: How California Selectively Tests, Classifies, And Tracks Language Minority Students", unpublished paper (Los Angeles: UCLA, 2005), online at www.spa.ucla.edu/calpolicy/files06/Xiong_Zhou_Policy_Paper_Sept30_2005_Final_1II.pdf.
49 D. Silver, Equity in Access to Higher Education, Unpublished doctoral dissertation, (Los Angeles: University of California, Los Angeles, 2006). African American and Latino students were $58 \%$ less likely than White and Asian students to report that they felt welcomed in honors and advanced courses.
50 E. L. Horng, Poor Working Conditions Make Urban Schools Hard-to-Staff. UC ACCORD Public Policy Series \#10 (Los Angeles: UC ACCORD, 2005), available on the UC ACCORD website, www.ucaccord.org.
51 W. S. Koski and H. A. Weiss, "What Educational Resources Do Students Need to Meet California's Educational Content Standards? A Textual Analysis of California's Educational Content Standards and their Implications for Basic Educational Conditions and Resources," Teachers College Record, 106 No. 10 (2004), pp. 1907-1935.
52 Mathematics Standards, p. 32, as cited in Koski and Weiss 2004.
53 Williams vs. State of California, First Amended Complaint for Injunctive and Declaratory Relief, Superior Court Of The State Of California, County Of San Francisco, Filed May 17, 2000, pp. 70, 72.
54 J. Oakes and M. Saunders, "Education's Most Basic Tools: Access to Textbooks and Instructional Materials in California Public Schools," Teachers College Record, 10 (1995), pp. 1967-1988.
55 See, for example, T. L. "Good, Recent Classroom Research: Implications for Teacher Education," in Essential Knowledge for Beginning Educators, ed. D.C. Smith (Washington, D.C.: American Association of Colleges for Teacher Education, 1983). Formal teacher education significantly impacts these effective practices. See, for example, L. Darling-Hammond, "Teaching and Knowledge: Policy Implications posed by Alternative Certification for Teachers," Peabody Journal of Education, 67, No. 3 (1992).
56 That such differences matter for learning is documented in a recent report from the Educational Testing Service finding a positive relationship between students' exposure to high level applications in mathematics and their mathematics achievement. Education Week, "Technology Counts '98" (Washington, DC: Editorial Projects in Education, October 1998).
57 L. Darling-Hammond, "Inequality and the Right to Learn: Access to Qualified Teachers in California's Public Schools," Teachers College Record, 106, No. 10 (2004).
58 R. Cooper, S. Markoe-Hayes, Improving the Educational Possibilities of Urban High School Students as They Transition from $8^{\text {th }}$ to $9^{\text {th }}$ Grade. UC ACCORD Public Policy Series \#13 (Los Angeles: UC ACCORD, 2005), available on the UC ACCORD website, www.ucaccord.org.
59 Oakes, Keeping Track, 2005.
60 P. McDonough, The School to College Transition: Challenges and Prospects (Washington, D. C.: ACE/Center for Policy Analysis, 2004).
61 D. Silver, 2006; See also, W. Wang, How Outreach Programs Are Implemented Affects Students Academic Achievement, UC ACCORD Public Policy Series \#11 (Los Angeles: UC ACCORD, 2005), available on the UC ACCORD website, www.ucaccord.org.
62 M. Kirst and A. Venezia, Bridging the Great Divide Between Secondary Schools and Postsecondary Education (San Jose: National Center for Public Policy and Higher Education,2002). Moreover, a 2003 study by the US Department of Education found that only $18 \%$ of all high school students and $30 \%$ of parents have accurate information on college costs; McDonough 2004.
63 D. D. Quigley and S. Leon, How Are High School Students Faring in the College Prep Curriculum? A Look at Benchmark Data for UC Partner High Schools in the University of California's School/University Partnership Program, CSE Technical Report 584, (Los Angeles: University of California Center for the Study of Evaluation, 2002), www.cresst.org/Reports/TR584.pdf.
64 A. F. Cabrera and S. M. La Nasa, "Understanding the College Choices of Disadvantaged Students," New Directions for Institutional Research (San Francisco: Jossey-Basse, 2000); McDonough 2004.
65 Oakes, 1995; E. L. Useem, "Middle Schools and Math Groups: Parents' Involvement in Children's Placement," Sociology of Education, 65 (October, 1992), pp. 263-279.
66 Oakes 1995; Lucas 1999; Welner 2001

67 Existing instruments for measuring the key processes and school conditions relevant to equity and access to college -- such as collegegoing school culture - have been insufficient in at least two important ways. Prior research, by and large, has not provided reliable or valid measures of these school conditions, and when researchers have attempted to measure them at all, (e.g. school safety), they have not made convincing links to specific educational outcomes, such as college going. To address the paucity of quantitative information in this area, Oakes, Mendoza, and Silver (2004) designed the Survey of Recent Graduates (SRG). The following sections briefly summarize findings from this survey.
68 Gonzalez et al., "Examining the Role of Social Capital in Access to College for Latinas: Toward a College Opportunity Framework," Journal of Hispanic Higher Education, 2 No. 2 (2003), pp. 146-170;E. M. N Horvat, Boundaries of Belonging and Postsecondary Access: African-American Students and College Decision Making in Context, Paper presented at the Annual Meeting for the Association for the Study of Higher Education (Memphis: November, 1996); L. X. Perez, The Interface of Individual, Structural, and Cultural Constructs in Latino Parents Efforts to Support their Children in Planning for College 2000, unpublished doctoral dissertation (Los Angeles: UCLA Graduate School of Education and Information Studies, 2000); S. M. Lomiboa, M.A. I. Barretto, and H. P. Pachon, The Reality of Race Neutral Admissions Policies at the University of California: Turning the Tide or Turning Them Away (Los Angeles: Tomas Rivera Policy Institute, 2004).
69 Oakes, Mendoza, and Silver 2006, designed the Survey of Recent Graduates (SRG).
70 M. S. McPherson and M. O. Shapiro, "The Blurring Line," Cbange, 34 (2002), pp. 38-46.
71 Advisory Committee on Student Financial Assistance, Empty Promises: The Myth of College Access in America (Washington, D.C.: Advisory Committee on Student Financial Assistance, 2002); L. E. Gladieux, "Low-Income Student and the Affordability of Higher Education," in America's Untapped Resource: Low-Income Students in Higher Education, ed. R. D. Kahlenberg (New York: The Century Foundation Press, 2004); D. Heller, Conditions of Access: Higher Education for Lower-Income Students, (Westport, CT: American Council on Education/Praeger Series on Higher Education, 2002; J. O. Stampen and W. L. Hansen, Refocusing the HEA Reauthorization to Reflect the Priorities of Higher Education Policy Analysts and Researchers (Madison: Wisconsin Center for the Advancement of Postsecondary Education, 2004).
72 B. K. Fitzgerald and J. A. Delaney, "Educational Opportunity in America," in Condition of Access: Higher Education for Lower Income Students, ed. E. E. Heller (Westport, CT: Praeger Publishing, 2002); T. A. Flint, "Early Awareness of College Financial Aid: Does it increase choice?' Review of Higher Education, 16, No. 3 (1993), pp. 309-327; E. P. St. John, Refinancing the College Dream: Access, Equal Opportunity, and Justice for Taxpayers (Baltimore, MD: John Hopkins University Press, 2003).
73 K. Freeman, "Increasing African Americans' Participation in Higher Education: African American High-School Students' Perspectives'," Journal of Higher Education, 68 (1997), 523-550; L. W. Perna, "Differences in the Decisions to Attend College Among African-Americans, Hispanics, and Whites," The Journal of Higher Education, 71, No 2. (March-April, 2000), pp. 117-141.
74 P. McDonough, "The Meaning of Money: Perceptual Differences Between Counselors and Low-Income Families About College Costs and Financial Aid," American Behavorial Scientist, 46 , No. 12 (2006), pp. 1703-1718.
75 O. Moles, "Guidance Programs in American High Schools: A Descriptive Portrait," The School Counselor, 38, No. 3 (1991), pp. 163-177.
76 McDonough 2004; 2006.
77 V. E. Lee and R. B. Ekstrom, "Student Access to Guidance Counseling in High Schools," American Educational Research Journal, 24 No. 2 (1987), pp. 287-310; J. Oakes, "Investigating the Claims in Williams v State of California: An Unconstitutional Denial of Education's Basic Tools?" Guest Editor's Introduction to a Special Double Issue, Teachers College Record, 106 Nos. 10 and 11, (2004), pp. 1889-1906.; S. B. Plank and W. J. Jordan, "Effects of Information, Guidance, and Action on Postsecondary Destinations: A Study of Talent Loss," American Educational Research Journal, 38 No. 4 (2001), pp. 947-979.
78 F. G. Paul, Bridging Paradigms: A Profession in Transition (Oakland: University of California Office of the President, 2002).
79 P. Gandara and D. Bial, Paving the Way to Higher Education: K-12 Interventions Programs for Underrepresented Youth (Washington, D. C.: National Postsecondary Education Cooperative, 2001); J. Oakes, "Can tracking Research Inform Practice?" Educational Researcher, 2 No. 4, (1992), pp. 12-22.
80 P. M. McDonough, "Buying and Selling Higher Education: The Social Construction of The College Applicant," Journal of Higher Education, 65, (1994), 427-446; P. M. McDonough, J. S. Korn, and E. Yamasaki, "Access, Equity, and the Privatization of College Counseling," Review of Higher Education, 20 (1997), pp. 297-317.
81 Oakes, Mendoza, \& Silver, in press; Silver 2006
82 Rogers, et al. 2006.
83 Considerable research supports the powerful effect on students' achievement of schools where students experience access to knowledge, an institutional "press" for achievement, and conditions that support teacher efficacy. See, for example, V. E. Lee and J. B. Smith, Schools that Work (New York: Teachers College Press, 2001); W. Hoy, C. J. Tarter, and A. W. Hoy, "Academic Optimism," American Educational Research Journal, (Fall 2006), pp. 279-300.
84 M. M. McLaughlin. "The Rand Change Agent Study Revisited: Macro Perspectives and Micro Realities," Educational Researcher 19 (1990), pp. 11-16.

85 J. H. Braddock, and M. P. Dawkins, "Ability Grouping, Aspirations, and Attainments: Evidence from the National Educational Longitudinal Study of 1988," The Journal of Negro Education, 62, 3 (Summer, 1993), 324-336; M. T. Hallinan, "Ability Grouping and Student Learning," Prepared for Brookings Papers on Education Policy Conference: The American High School Today (Washington, D. C.: The Brookings Institution, May 14-15, 2002); K. Levesque, et al., Vocational Education in the United States: Toward the Year 2000. NCES 2000-029 (Washington, D. C.: U.S. Department of Education, NCES, 2000), nces.ed.gov/pubs2000/2000029.pdf; S. Lucas, Tracking Inequality: Stratification and Mobility in American High Schools (New York: Teachers College Press, 1999); Oakes 2005; K. Welner, 2001.
86 Adelman 1999; 2006.
87 C. C. Burris and K. G. Welner, "Closing the Achievement Gap by Detracking," Phi Delta Kappan, 86 (2005), pp. 594-598; C. C. Burris, J. P. Hubert, and H. M. Levin, "Accelerating Mathematics Achievement Using Heterogeneous Grouping," American Educational Research Journal, 43 No. 1 (2006), pp. 105-136.
88 D. Alvarez. and H. Mehan, "Whole-School Detracking: A Strategy for Equity and Excellence," Theory Into Practice, 45, No. 1 (2006), pp. 82-89.
89 Online at www.sjusd.k12.ca.us/Community/Board/Public_Engagement.pdf
90 Achieve Inc., Closing the Expectations Gap 2006: An Annual 50-State Progress Report on the Alignment of High School Policies with the Demands of College and Work, 2006 (Washington, D. C.: Achieve Inc. 2006), www.achieve.org/files/50-statepub-06.pdf.
91 Information about Pennsylvania Project 720 is online at www.project720.org.
92 Information about ConnectEd can be found at http://www.connectedcalifornia.org/about.php
93 As one example, M. Warschauer, Technology, Academic Preparation, and Equity: A Comparative Study, UC/ACCORD Public Policy Series \#7 (Los Angeles: UC ACCORD, 2004), available on the UC ACCORD website, www.ucaccord.org, is a case study on providing access to technology as a way to promote academic success and training for English Learner students.
94 CSU Professor Kenneth Futernick has created a "tipping point" plan that builds highly qualified teaching faculties based on this principle (available online at www.edfordemocracy.org/tpoint)
95 E. L. Horng, 2005.
96 For other ideas about how to close the racial achievement gap, see J. Wing, Closing the Racial Achievement Gap in Diverse California High Schools, UC/ACCORD Public Policy Series \#3 (Los Angeles: UC ACCORD, 2004), available on the UC ACCORD website, www.ucaccord.org.
97 M. W. Kirst and A. Venezia, Eds., From High School to College - Improving Opportunities for Success in Postsecondary Education (San Francisco: Jossey-Bass, 2004).
98 P. C. Gandara and D. Bial, Paving the Way to Postsecondary Education: K-12 Intervention Programs for Underrepresented Youth, Report of the National Postsecondary Education Cooperative Working Group on Access to Postsecondary Education, NCES\#2001205 (Washington, D. C.: National Center for Education Statistics, 2001); J. King, Student Aid: Who Benefits Now?, College Board Policy Analysis (New York: The College Board, 1996); McDonough, 2004; S. Plank and W. Jordan, "Effects of Information, Guidance, and Actions on postsecondary Destinations: A Study of Talent Loss," American Educational Research Journal, 38 No. 4 (2001); J. E. Rosenbaum, S. Rafiullah Miller, and M. Scott Krei, "Gatekeeping in an Era of More Open Gates: High School Counselors' Views of Their Influence on Students' College Plans", American Journal of Education, 104 (1996), pp. 257-279; A. Venezia, M. W. Kirst, and A. L. Antonio, Betraying the college dream: How disconnected K-12 and Postsecondary Education Systems Undermine Student Aspirations (Stanford: The Stanford Institute for Higher Education Research, 2003).
99 McDonough 2004.
100 D. Hossler, J. Schmit, and N. Vesper, Going to college: How Social, Economic, and Educational Factors Influence the Decisions Students Make (Baltimore: The Johns Hopkins University Press, 1999); McDonough 2004.
101 Online at http://www.certicc.org/downloadfiles/cmihEng0405.pdf
102 For an example of a resource guide on college going made available to families within a local community, see G. Chivara, C. Cooper and Y. Verdigo, Family Guide to College, (Los Angeles: UC/ACCORD, 2005), available on the UC ACCORD website, www.ucaccord.org.
103 P. McDonough, Choosing College (Albany: State University of New York, 1997).
104 H. Mehan, et. al., Constructing School Success: The Consequences of Untracking Low Achieving Students (New York: Cambridge University Press, 1996); additional information about AVID can be found online at www.avidonline.org.
105 Mehan, et al. 1996.
106 McDonough 1997.
107 One example of engaging communities in educating youth comes from a case study of a community based literacy program that built upon the diversity and resources within the community to help students develop meaningful critical writing skills. K. Jocson, Promoting Literacy and Critical Writing Skills Through Poetry. UC/ACCORD Public Policy Series \#12 (Los Angeles: UC/ACCORD, 2005), available on the UC ACCORD website, www.ucaccord.org.
108 Information about the Met Schools is online at http://www.bigpicture.org/schools/profiles.htm.
109 "Information Works: Measuring Rhode Island Schools for Change," Rhode Island Department of Education; 2006. Accessed on October 5, 2006 at http://www.infoworks.ride.uri.edu/2006/default.asp

## IDEA/ACCORD

110 Donahoe Higher Education Act (Title 3, Division 5, Part 40, of the Education Code beginning at Section 66000); University of California 1960.

111 http://www.admissions.ucla.edu/prospect/adm_tr/ADM_CCO/tap.htm
112 College Board 2006-all figures based on Class of 2005 and NCES data on cost adjusted per pupil expenditures from 2002-2003.
113 Quality Counts 2006; Rogers et. al. 2006.
114 Rogers et. al. 2006.
115 http://www.schoolfunding.info/policy/CostingOut/overview.php3.
116 Personal communication, 2006.
117 Achieve and National Governors Association, America's High Schools: The Front Line in the Battle for Our Economic Future, 2005; American College Testing Program, Ready for College and Ready for Work: Same or Different? (Iowa City: ACT, 2006); A. Carnevale and D. Desrochers, Standards for What? The Economic Roots of K-16 Reform (Princeton: Educational Testing Service, 2003); H. Brady, M. Hout, and J. Stiles, Return on Investment: Educational Choices and Demographic Change in California's Future (Berkeley: University of California Berkeley Survey Research Center, 2005), http://paa2006.princeton.edu/download.aspx?submissionId=61682.
118 J. Dounay, Involving Families in High School and College Expectations, High School Policy Brief (Boulder: Education Commission of the States, 2006), p. 1.
119 Jobs for the Future and Lake Snell Perry and Associates, Leaks in the Postsecondary Pipeline: A Survey of Americans (Boston: Jobs for the Future, 2003), www.jff.org/JFF_KC_Pages.php?WhichLevel=1andlv1_id=4andlv2_id=0andlv3_id=0andKC_M_ID=99.
120 A. Astin, Minorities in American Higher Education: Recent Trends, Current Prospects, and Recommendations (San Francisco: Jossey-Bass, 1982).
121 M. Baldassare, PPIC Statewide Survey: Special Survey on Education, April 2006 (San Francisco, CA: Public Policy Institute of California, 2006).

Principal Researchers<br>Jeannie Oakes<br>John Rogers<br>David Silver<br>Siomara Valladares<br>Veronica Terriquez<br>Pat McDonough<br>Michelle Renée<br>Martin Lipton<br>Contributing Editors<br>Christine O'Keefe<br>Carolyn Castelli Jaime Del Razo<br>Lauren Wells<br>Arshad Ali<br>Design and Production<br>Nery Orellana<br>Jared Planas<br>Jesse Castro



The Institute for Democracy, Education, and Access (UCLA/IDEA) is a network of University of California at Los Angeles scholars and students, professionals in schools and public agencies, advocates, community activists and urban youth. UCLA/IDEA's mission is to make high-quality public schooling and successful college participation routine occurrences in low-income neighborhoods of color. Research and capacity-building are the tools UCLA/IDEA uses to empower individuals, build relationships, and create knowledge for civic participation and social change. www.ucla-idea.org


University of California's All Campus Consortium On Research for Diversity (UC/ACCORD) is an interdisciplinary, multi-campus research center. UC/ACCORD serves as an information and research clearing house and catalyst for promoting the delivery of high-quality, equitable schooling to all students. UC/ACCORD harnesses the research expertise of the University of California to identify strategies that will increase college preparation, access, and retention. www.ucaccord.org

This report can be accessed online at http://www.ucla-idea.org


[^0]:    Source: California Basic Education Data System, online data, www.cde.ca.gov/ds/sd/cb/

[^1]:    Source: EdTrust West, California at the Crossroads: Embracing the CAHSEE and Moving Forward, (Oakland: Ed Trust West, 2005)

