Falling Through the Cracks: Critical Transitions in the Latina/o Educational Pipeline

2006 Latina/o Education Summit Report

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INTRODUCTION

Within educational research, the pipeline metaphor is often used to describe how students move through the primary, secondary, and postsecondary levels of education. The educational pipeline functions well for some groups of students, allowing them to flow smoothly through the various levels of education and yielding a fairly proportionate number of high school and postsecondary graduates. The pipeline for Latina/o students, however, does not work in this way. Figure 1 illustrates, for example, that out of every 100 Latina elementary students in the United States, 54 will graduate from high school. From these high school graduates, 11 will graduate from college, 4 will graduate from graduate or professional school, and less than 1 will receive a doctorate.

The Latina/o educational pipeline does not ensure a smooth flow of students from one end of the conduit to the other, but a broken trickle of fewer and fewer students graduating from each level. Among Latina/o students, Chicana/os and Salvadorans have the lowest attainment rates at every segment of the pipeline, as Figure 2 shows.

These students are not being prepared to make a successful transition into high school, resulting in tremendous dropout rates. High dropout rates continue for the students who do make it to college. Latina/o students are severely underrepresented at four-year colleges and universities and in graduate and professional programs.

Research has found that in California, Students of Color are concentrated into overcrowded, underresourced schools that are most in need of qualified teachers.
These students remain drastically disadvantaged in terms of receiving a high-quality education in comparison to their White and Asian American counterparts (Carroll, Krop, Arkes, Morrison, & Flanagan, 2005). As the Latina/o population increases, more students fall through the cracks in the educational pipeline and the disparity in attainment continues to grow.

Currently, Latina/o students in California compose almost half the entire K-12 student population. State projections estimate that by the year 2009, the majority—over 51 percent—of K-12 students in California’s public schools will be Latina/o (State of California, Department of Finance, 2003). The future of the Latina/o community and the future of California will be determined by the efforts made to improve educational conditions for Latina/o students. This report examines the research literature on critical transitions within each segment of the educational pipeline—K-12, community college, undergraduate, and graduate—and offers recommendations for policies that, if implemented, will increase the number of Latina/os who graduate with advanced degrees.

THE K-12 SEGMENT

Educational inequities and disparate accessibility to a college-preparatory curriculum are problems at many K-12 schools with a high concentration of Latina/os, making higher education an elusive goal. An emphasis on Latina/os in the K-12 pipeline merits attention because high school graduation rates are disproportionately lower for Latina/os than for other racial/ethnic groups.

Latina/os represent a large and growing proportion of the student population in public schools in California. Figure 3 shows student enrollment for 2004–05 by ethnicity. Latina/os accounted for 47 percent of all K-12 students in California, 62 percent in Los Angeles County, and 73 percent in the Los Angeles Unified School District (LAUSD). Figure 3 reveals that as the focus narrows from the state to the local level, the enrollment of Latina/os increases substantially. Demographic shifts such as White flight and the increase in the Latina/o population overall are responsible in part for this increase.

Figure 4 represents the steady growth in the Latina/o student population in comparison to White and African American students in LAUSD from 1968 to 2004. Increases in the Latina/o student population in the Los Angeles area often result in school overcrowding. By creating environments that are not conducive for rigorous learning, overcrowding negatively impacts student success (Oakes, 2002).

The classroom experience plays a key role in student achievement in all segments of the educational pipeline. Cultural deficit frameworks, which suggest that families are at fault for the poor academic performance of minority children, reinforce teacher practices that negatively affect student-teacher relations and produce low expectations.
for Students of Color. Research on cultural wealth (Yosso, 2005)—the array of knowledge, skills, and abilities that are possessed and utilized by socially marginalized communities—has articulated theoretically informed strategies that challenge cultural deficit perspectives on Students of Color in the classroom and beyond.7

For Latina/os, the pursuit of higher education can be limited when specific critical factors that influence students’ transition through the educational pipeline are ignored. The work of Oakes, Mendoza, and Silver (2004) identifies seven areas of concern that must be addressed if current educational outcomes for Latina/o students are to improve.

1. SAFE AND ADEQUATE SCHOOL FACILITIES
Schools should be sites that are free from violence, safety issues, and excessive student enrollment. An important component of safety is a positive school climate that promotes student academic excellence and college preparation (Oakes, Rogers, Silver, & Goode, 2004).

Recommendation: Eliminate overcrowding in the schools. School districts with excessive enrollment need to reduce the number of students in every school to the capacity for which the school was built. Construction of additional facilities should accommodate the demographic shifts within the community. Students should not have to learn in crowded classrooms or temporary instructional spaces.

2. COLLEGE-GOING SCHOOL CULTURE
A college-going school culture comprises a school environment in which teachers, parents, and student peers have high expectations and encourage students to prepare for college. Teachers who expect their students to go to college improve students’ chances for a successful transition to college by increasing their opportunities to learn (Oakes et al., 2004). High expectations directly affect the motivation of students, who learn to see themselves as college-bound (Solórzano & Solórzano, 1995).

Recommendation: Provide teacher training and resources that focus on the strengths of Students of Color and that contribute to higher teacher expectations. Teacher practices should recognize the demographics of the student population that teachers serve. Instruction that incorporates the experiences of students can provide teachers with insight and promote higher expectations for academic achievement. Access to role models and mentors for Latina/o students can have positive effects in the creation of a college-going school culture.

3. RIGOROUS ACADEMIC CURRICULUM
The coursework that students take throughout middle school and high school is the most influential factor in increasing opportunities for attaining a degree from a four-year college or university (Oakes et al., 2004). A rigorous curriculum of college preparatory classes that includes mathematics is essential for meeting the academic eligibility requirements for four-year institutions. Admission to the University of California (UC) is based on three requirements: the completion of specified year-long academic courses (known as the “A-G” coursework); grade point average, which is calculated on grades received in eleven of the last fifteen courses taken in high school; and scores on standardized tests. Students of Color, in particular Latina/o and African American students, need greater access to a rigorous academic curriculum, which will increase their college-going readiness.

Recommendation: Implement the "A-G" curriculum as the default curriculum. An education that is based on the “A-G” curriculum offers rigorous coursework and the opportunity for students to be college-ready by high school graduation. Offering this curriculum in all California schools is the most effective way to ensure that all students have an opportunity to be prepared and eligible for admission to a four-year college or university.

4. QUALIFIED TEACHERS
Teachers that are well qualified have the strategies, resources, and tools required to meet the learning needs of a diverse group of students and to create classroom environments that engage students and validate their cultural identities (Oakes et al., 2004). Darling-Hammond and Berry (1999) argue that access to qualified teachers is one of the most inequitably distributed educational resources among poor and minority children and that this lack of access contributes to the achievement gap between Students of Color and White students. The percentage of teachers with full credentials is lowest in schools with a high concentration of Latina/os. For example, Table 1 shows that approximately 80 percent of teachers in LAUSD have full credentials in comparison to 97 percent in Beverly Hills, which has a large enrollment of White students.

Table 1. Credential Status of Teachers in the Los Angeles Unified School District (LAUSD) and the Beverly Hills Unified School District (BHUSD), 2004–05.

<table>
<thead>
<tr>
<th>Type of Credential</th>
<th>Percentage of All Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAUSD (n=31,536)</td>
<td>BHUSD (n=275)</td>
</tr>
<tr>
<td>Full Credential</td>
<td>79.7</td>
</tr>
<tr>
<td>University Intern</td>
<td>10.3</td>
</tr>
<tr>
<td>District Intern</td>
<td>2.4</td>
</tr>
<tr>
<td>Pre-Intern</td>
<td>1.7</td>
</tr>
<tr>
<td>Emergency</td>
<td>5.5</td>
</tr>
<tr>
<td>Waiver</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Recommendation: Hire teachers with full credentials who are trained in cultural competency and college counseling. Employing fully credentialed teachers in schools with predominantly Latina/o students can positively impact the K-12 pipeline by improving instruction, which will increase the number of college-ready students who graduate from high school. Teachers should also be trained in college counseling in order to support a college-going culture for students, thus contributing to a school climate that promotes higher education.

5. INTENSIVE ACADEMIC AND SOCIAL SUPPORT
School personnel such as teachers and counselors can provide vital information on the necessary steps for academic success and college access and offer support for students and their families. This assistance facilitates planning for college and makes navigation of the educational pipeline viable (Oakes et al., 2004). In addition, peer support among Students of Color can also influence student achievement within the K-12 pipeline (Gibson, Gándara, & Koyama, 2004; Cooper & Markoe-Hayes, 2005).

Recommendation: Provide college counseling as early as elementary school. Increase the number of counselors in K-12 schools in order to promote college-going and prepare students for successful transitions throughout the educational pipeline.

6. OPPORTUNITIES TO DEVELOP A MULTICULTURAL, COLLEGE-GOING IDENTITY
Students should be encouraged by schools to view the college-going experience as central to their academic identity. In particular, Students of Color must develop confidence regarding themselves and their families, peer groups, and communities. This academic identity must be attained without diminishing the value of students’ home communities (Oakes et al., 2004).

Recommendation: Create a school culture that acknowledges and respects each student’s linguistic and racial/ethnic background. Implement a model within schools that values the multicultural contributions of every student. Students of Color offer alternative viewpoints and other assets that can enrich the classroom environment. Educators must acknowledge the cultural wealth that is found within Communities of Color.

7. FAMILY-NEIGHBORHOOD-SCHOOL PARTNERSHIPS FOCUSED ON COLLEGE-GOING
Partnerships between families and schools need to be established in order to build on the contributions that parents and neighborhood connections can make for the education of their children. Schools should provide parents with information about college admissions and financial aid in both Spanish and English. Parents can learn to navigate the college-going process with the support of schools and when viewed as effective partners in the college-going process (Oakes et al., 2004).

Schools need to engage parents and provide information about the college-going process. Parents care about the education of their children. Schools should engage and support parents in their child’s educational goals. Information about applying to college and financial aid should be available for low-income families and first-generation college students in both English and Spanish.

THE COMMUNITY COLLEGE SEGMENT
For decades, the California Community College (CCC) system has prided itself as being a vital component of the state’s three-tiered system of higher education. The community colleges serve many functions, including the education of vocational and transfer students, and continuing education. In this three-tiered structure, which is outlined in the 1960 California Master Plan of Higher Education, campuses in the University of California system admit the top 12.5 percent of California high school graduates, those in the California State University (CSU) system admit the top 33.3 percent, and those in the California Community College (CCC) system have an open admissions policy. The master plan “encouraged the diversion of large numbers of high school graduates from enrollment into four-year universities and into the community colleges” (Ornelas, in press). Today this diversion translates into an overrepresentation of Latina/o, low-income, and immigrant students.

Figure 5. Percentage of Students Enrolled in the Los Angeles Community College District and the University of California, Los Angeles, by Race/Ethnicity, 2006.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>LACCD</th>
<th>UCLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian American</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>African American</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>Latina/o</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>White</td>
<td>33%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Note: UCLA student enrollment data are for all undergraduate students. Source: California Postsecondary Education Commission (2004); University of California (2006).
students at the third tier of higher education. This diversification is apparent when the demographics of the Los Angeles Community College District (LACCD) and the University of California, Los Angeles (UCLA) are compared. For example, Latina/o students comprise 45 percent, almost half, of the entire LACCD student population, compared to only 15 percent of UCLA students (Figure 5). Clearly, these findings indicate that the community college serves as the primary point of entry to postsecondary education for Latina/o students.

Enrollment at LACCD campuses reflects the changing demographics and needs of Latina/o community college students throughout the state. Thirty-eight percent of LACCD students are non-native English speakers, 50 percent are over the “traditional” college age, 18–23 years old (Hagedorn & Cepeda, 2004). It is important to mention that immigrant students make up 27 percent of the total population of the CCC system (Woodlief, Thomas, & Orozco, 2003). Many of these students deal with circumstances that can impede transfer to a four-year college or university, as Woodlief, Thomas, and Orozco (2003) note:

Immigrant students face many of the same challenges as U.S.-born people, such as balancing work and family responsibilities with school. But they also struggle with additional problems: shortages of English as Second Language courses; language and cultural barriers that severely limit their access to information and affect their classroom success; and a sometimes unwelcoming classroom climate. (p. 17)

These distinct and evolving needs are often ignored, yet they are decisive factors in whether Latina/o students transfer to four-year colleges or universities.

Transfer rates for Latina/o students indicate that the community college system is not taking the needs of Latina/o students into consideration and therefore is not adequately preparing them to transfer to four-year colleges or universities. Figure 6 shows that 75 of every 100 Latina/o first-time freshman students will begin their postsecondary education in California’s community colleges. Of these 75 students, only 7 (9%) are likely to transfer to either a CSU or UC campus (Ornelas, 2005).

Despite the low transfer rates of Latina/o community college students, research suggests that Latina/o students hold high aspirations to transfer. Figure 7 illustrates the academic aspirations of entering Latina/o community college students in California. The data reveal that 40 percent of these students aspire to continue their education at a four-year college or university. Hagedorn and Cepeda (2004) examined the aspirations of LACCD students and found that an even higher percentage wanted to transfer: 88 percent of the students in this study stated they were attending the LACCD to attain a degree from a four-year college or university. Almost half (2,461) the students in their sample...
were Latina/o. The high proportion of students that plan to continue their education after community college demonstrates the importance of examining and improving the community college experience of Latina/o students.

Researchers have long known that a combination of factors produces the low transfer rate for Latina/o students, which are seen as, but not limited to: inadequate high school preparation, bias on the part of counselors and faculty, and an unwelcoming campus climate (Clark, 1960; Brint & Karabel, 1989; Ornelas, 2002). More recent studies, however, point to factors that validate the aspirations of Latina/o students to transfer to a four-year college or university (Ornelas & Solórzano, 2004; Ornelas, 2005).

Community colleges can ensure that these aspirations are validated by instilling a transfer culture on campus. A transfer culture is defined by Ornelas (2005) as involving

- A campus-wide effort that normalizes and ensures that students who intend or aspire to transfer will in fact make this critical transition to the university. That is, a transfer culture involves a campus-wide effort by administrators, counselors, faculty, and students to normalize the transfer process at a community college. (p. 2)

A campus-wide transfer culture gives students the knowledge, resources, and support that are necessary for a successful transfer to a four-year college or university. Although many Latina/os enter the CCC system with the intention of transferring, many are not able to make this critical transition. We propose transfer culture as an effective strategy for moving more Latina/o students from community college to a four-year college or university.

**Recommendation: Incorporate a transfer culture on all California Community College (CCC) campuses.** Community colleges can incorporate a transfer culture on their campuses by focusing their efforts on the following strategies:

- **a. Increase accessibility to the information that is necessary for transfer by expanding the Articulation System Stimulating Interinstitutional Student Transfer (ASSIST) project.** The expansion of ASSIST, a computerized system that provides information on transferring course credit among UC, CSU and CCC campuses, into a form of virtual counseling would benefit both students and counselors. Students would be able to receive academic advising via the web, and they would be able to monitor their academic goals and learn about requirements and deadlines on demand.

- **b. Provide a rigorous curriculum for all students by instating the Intersegmental General Education Transfer Curriculum (IGETC) as the default curriculum.** IGETC courses are required for transfer to CSU and UC campuses. Offering IGETC at all CCC campuses would ensure that all students are offered a rigorous curriculum that will prepare them to transfer. In addition, undecided students will not lose time if they eventually elect to pursue an associate’s or a bachelor’s degree.

- **c. Increase support programs and services that are tailored to the needs of students by establishing learning communities.** Research shows that community colleges that have promising transfer rates for Latina/o students have developed learning communities on their campuses. Students in learning communities, or learning cohorts, take classes together, moving through course sequences as a group. The group structure supplies academic support, which is essential for success and transition to the university. Learning communities can provide peer mentorship and vital services such as tutoring, faculty mentorship, and information on transfer requirements. Successful learning communities also provide validation of student backgrounds and experiences.

**Undoubtedly, the CCC system has the potential to serve as a second chance for students who face the greatest obstacles to a postsecondary degree. Unfortunately, transferring to a four-year college or university is seldom a reality for these students. It is imperative that policymakers, scholars, and community members take action and ensure that a transfer culture becomes an institutional priority at all the CCC campuses.**

**THE UNDERGRADUATE SEGMENT**

Research has established that Latina/o students are severely underrepresented at institutions of higher education in the United States (Solórzano, 1993; Ramirez Lango, 1995; Hurtado, Milem, Clayton-Pedersen, & Allen, 1998; Solórzano & Villalpando, 1998). In the previous discussion of Latina/o students in the K-12 school system, we saw that many Latina/o students are unable to complete high school. Students who do not complete high school are ineligible to attend four-year institutions; thus, many Latina/o students are lost during the transition from high school to post-secondary education. For those Latina/os that do continue their education, attainment rates remain very low. The U.S. Census reports that Latina/os received just 4 percent of the total number of bachelor’s degrees earned in 2000; in comparison, Whites earned 84 percent (Figure 8).8

To better understand these statistics and to accurately compare degree attainment among racial/ethnic groups, we use a parity measure that identifies all persons aged twenty-five and older as a comparison population for each group (represented in Figure 8 by the first column in each pair).9 Thus, to reach parity, if Latina/os comprise 10 percent of the total U.S. population, they must have earned 10 percent of bachelor’s degrees in 2000. In order to reach parity, Latina/os would have to increase baccalaureate attainment from 4 to 10 percent—a two-and-a-half-fold
increase. The figure shows that Latina/os are severely underrepresented at this segment of the pipeline. In contrast, Figure 8 shows that Whites not only reached parity, at 79 percent, but also are overrepresented, with 84 percent earning bachelor’s degrees.

Educational researchers have developed a body of research literature on the factors that encourage success and degree attainment among undergraduate Latina/o students. Less research has been done on the critical transition factors that enable and encourage Latina/os to move through the post-secondary segment of the pipeline and on to a graduate program. This section discusses the transition factors that have been identified—the role of family, the campus climate, role modeling and mentorship, and financial aid—and provides recommendations for increasing the number of Latina/o undergraduates who earn degrees and enroll in graduate or professional school.10

1. ROLE OF THE FAMILY
Research has found that strong family ties are an important factor in the pursuit of postsecondary education for Latina/o students (Morales, 1988; Gloria & Rodriguez, 2000; O’Brien & Shedd, 2001; Rosas & Hamrick, 2002; Ceja, 2004; Tierney & Auerbach, 2005). Considering the importance of this influence, families should be incorporated into the decision-making processes of their college-going children. It is imperative that college information be shared not only with students but also with parents and families, many of whom have not attended college. When college information is provided to students and their families, parents are able to make informed decisions with their children about their postsecondary education.

Recommendation: Involve parents and families in college outreach programs. Outreach to children and parents should begin, ideally, in elementary school. Admissions offices and outreach staff should build on parents’ support of college-going by involving parents in outreach efforts. Outreach programs should move their efforts off campus and into the Latina/o community to facilitate efforts to contact students and their families. Institutions should disseminate college materials in English and Spanish for monolingual parents, and programs should provide personalized information to students and their families about the college-going process. Programs should also work to expand families’ social networks to include educators, college students and alumni, and other families, which would provide the opportunity for families to share college information.

2. CAMPUS CLIMATE
Undergraduate Latina/o students and other Students of Color frequently encounter a negative campus climate, characterized by racial/ethnic discrimination (Gándara, 1982, 1995; Vasquez, 1982; Ramirez Lango, 1995; Hurtado, Carter, & Spuler, 1996; Hurtado & Carter, 1997; Hurtado et al., 1998; Solórzano, 1998a, 1998b; Solórzano & Villalpando, 1998; Solórzano & Yosso, 2000; Solórzano, Allen, & Carroll, 2002). The campus climate can be described as the “overall racial environment” on a college or university campus (Solórzano, Ceja, & Yosso, 2000). A negative campus climate can affect a student’s persistence and desire to graduate and may also dissuade a student from pursuing a graduate or professional program. Researchers have developed specific policy guidelines to improve the climate on college campuses by fostering greater tolerance among student populations, whose diversity ultimately benefits the entire campus.

Recommendation: Colleges and universities must institute a mission to reinforce their commitment to academic and social equality among all students. Campuses must be committed to student equality and diversity. Resources should be continually allocated to recruiting Students and Faculty of Color in all campus departments, and institutions should develop formal strategies for increasing representation and inclusion of Students of Color on campus. Campus administration must recognize racial and gender discrimination and tension and formally implement clear policies and strategies to tackle and resolve these problems. Every college and university campus should require undergraduate students to take at least one course in an ethnic studies program where they will learn about the history, experiences,
and contemporary issues of Chicanas/os, Latina/os, African Americans, Native Americans, and Asian Americans.

3. ROLE MODELING AND MENTORSHIP
Role modeling and mentorship is a critical factor in the college careers of Latina/o students (Gándara, 1995; Cuadráz, 1996; Morales, 1988; Solórzano, 1998b; Solórzano & Villalpando, 1998; Solórzano et al., 2002). Although role models and mentors are important for all students, Latina/o students especially benefit from these relationships as they are less likely than other groups to have knowledge about the college-going process (Hurtado et al., 1996). Mentors and role models have been key in assisting Latina/o students as they navigate through college and in encouraging the pursuit of graduate school. Mentors are especially influential when they are highly involved in student’s academic lives and demonstrate a personal investment in their success.

Recommendation: Institutions should implement faculty-student mentorship programs. Mentorship programs should target Latina/o students and match them with committed faculty members who will support their research interests and dedicate time to providing academic and personal guidance. These programs should have clearly articulated goals and purposes and be consistently evaluated for effectiveness. Programs should provide faculty training on strategies to become an effective mentor for Latina/o students. Departments should provide incentives for faculty who participate in such programs.

4. FINANCIAL AID
Financial aid is a determining factor in the persistence of Latina/o college students. As college tuition increases and family income remains the same, an affordable college education is not a reality for many Latina/o students. This phenomenon is critical for Latina/o college students attending public institutions in California, where annual budget crises have led to dramatic increases in fees. Nonresident fees for students who have not lived in California for more than a year, are even higher. Table 2 lists recent fees for residents and nonresidents for three public institutions in California.

Currently, Assembly Bill 540 (AB 540) legally qualifies all long-term California residents, regardless of immigration status, for exemption from nonresident tuition at all California public institutions of higher education. Undocumented students, however, are not eligible to receive federal and state financial aid. Abrego (2002) reports that some Latina/o students who have lived in the United States most of their lives do not discover their undocumented status until they are in the college application process. Ineligibility for federal and state financial aid programs creates yet another barrier to higher education for undocumented Latina/o students, who are left without federal or state resources to pay for college tuition. Thus, even though undocumented Latina/o California students are eligible for resident fees under AB 540, their families may not be able to afford to pay them. Of even more concern are recent legislative strategies aimed at criminalizing undocumented people living in the United States. These strategies would further limit access to higher education for undocumented students by criminalizing anyone who assists undocumented students in the pursuit of higher education. Moreover, increases in merit-based financial aid do not improve the financial situation for most Latina/os because this aid is usually awarded to better prepared, higher income students. Given these circumstances, it is inevitable that the enrollment of low-income Latina/os and other Students of Color will significantly decrease at CCC, CSU, and UC campuses as student fees increase and financial assistance remains stagnant.

Recommendation: Increase the availability of need-based financial aid to keep pace with increases in college tuition. College students in California must not bear the burden of the state’s recurring budget problems. The state must support public institutions of higher education in California as they strive to keep pace with enrollment growth. Institutions must reconfigure awarding criteria for grants and scholarships to target students with the greatest financial need rather than students who will attend college regardless of receiving an award. Institutions must allocate funds to financial aid programs that provide grants and scholarships to first-generation and low-income college students. The state should continue its support of Assembly Bill 540, and its provisions should be expanded to provide financial aid to undocumented students.

THE GRADUATE SEGMENT
Very few Latina/o students make it through the educational pipeline to graduate and professional school. Even fewer earn a doctorate or a professional degree. Figure 9 shows that Latina/os continue to be underrepresented at the master’s degree level, just as they are at the bachelor’s degree level. Figure 10 illustrates the drastic disparity in total U.S. Latina/o population and doctoral degree attainment, especially when compared to the degree attainment of Whites. This shortfall means that fewer scholars and professionals in the academy will conduct research on important issues within Latina/o communities or be

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Table 2. Undergraduate Fees for Full-Time Resident and Nonresident Students, Fall 2005

<table>
<thead>
<tr>
<th></th>
<th>East Los Angeles College</th>
<th>California State University, Los Angeles</th>
<th>University of California, Los Angeles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resident Fees</strong></td>
<td>$26</td>
<td>$3,035</td>
<td>$5,406</td>
</tr>
<tr>
<td><strong>Nonresident Fees</strong></td>
<td>$154</td>
<td>$5,747</td>
<td>$17,304</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td>$128</td>
<td>$2,712</td>
<td>$11,998</td>
</tr>
</tbody>
</table>

Source: East Los Angeles College (2005); California State University, Los Angeles (2005); University of California, Los Angeles (2005).
able to serve as role models for upcoming generations of Latina/o college students.

The transition to graduate school is difficult for all students, but Latina/os encounter unique obstacles that hinder academic success (Ibarra, 1996). We must begin to explore how we can improve the entire educational pipeline to ensure that more Latina/o students receive degrees from graduate and professional schools. The factors that have a significant impact on Latina/o undergraduate students also affect Latina/os’ experiences in graduate school: the role of family, the campus climate, role modeling and mentorship, and financial aid.

1. **ROLE OF THE FAMILY**

Family support is vital for a successful transition into graduate school for Latina/o students (Achor & Morales, 1990; Williamson, 1994; Castellanos, 1996; Ibarra, 1996; Gonzalez et al., 2001; Gonzalez, Marin, Figueroa, Moreno, & Navia, 2002). Most Latina/o graduate students are the first in their families to pursue an advanced degree. A disconnect between family of origin and school begins at the undergraduate level and intensifies at the graduate level. Latina/o students face the many demands of a graduate program in addition to the demands of their families of origin and their own immediate families. This becomes especially difficult for Latinas. Students find that they must negotiate between the values of two dissimilar worlds: family and community, and graduate school.

**Recommendation: Incorporate families into the graduate school experience.**

Graduate programs and institutions should involve families in recruiting efforts for Latina/o students. Graduate programs should provide increased financial support for students with dependents, subsidized housing, and childcare services, and they should be more open, understanding, and supportive of graduate students with families, especially women. To initiate this understanding, programs should offer faculty workshops on supporting graduate students with families. Graduate students should be provided with family-oriented spaces on campus such as family restrooms and lounge areas.

2. **CAMPUS CLIMATE**

Research has consistently found that racial and gender discrimination is a major barrier for Latina/o graduate students (Nieves-Squires, 1991; Adams, 1993; Solórzano, 1993; Hurtado et al., 1996; Valverde & Rodriguez, 2002). Discrimination can produce a negative campus climate, which can be detrimental to sense of belonging, academic self-concept, academic performance, and persistence. Students of Color are placed in positions where they are frequently challenged to validate their academic worthiness and capabilities: their academic work is often negatively criticized, their writing ability more harshly judged, and their productivity frequently questioned (Nieves-Squires, 1991; Adams, 1993; Cuádrrez & Pierce, 1994; Hurtado, 1994; Williamson, 1994; Solórzano & Yosso, 2001). Research on the campus climate at graduate schools also reveals that academic self-concept is lower for Latina students than for their male counterparts (Nieves-Squires,
1991; Zavella, 1991; Hurtado, 1994; Williamson, 1994; Segura, 2003). Policies must be implemented that will not only lead to the recruitment and admission of greater numbers of Latina/o students but also encourage a positive educational environment.

Recommendation: Establish a commitment to diversity at all colleges and universities and within academic departments. Graduate schools and departments must develop recruitment and hiring plans to bring in and support more Faculty and Students of Color. Assessment tools must be developed within departments and across the college or university to examine how policies and programs, curriculum, faculty, and student beliefs and attitudes contribute to the campus environment. Opportunities for faculty and student input should be included. Graduate schools and departments should establish orientations and other programs that will familiarize graduate students with academic programs. Students should also be provided with opportunities to present research at colloquia, attend academic conferences, and form study and dissertation groups. Graduate schools and departments should provide an academic and social climate in which research related to race, ethnicity, and gender is encouraged and supported.

3. Role Modeling and Mentorship
For Latina/o, assistance from role models and mentors during graduate school is crucial (Solórzano, 1993; Williamson, 1994; Ibarra, 1996; Solórzano, 1998b; Valverde & Rodríguez, 2002; Ceja & Rivas, 2005). It is important to identify faculty advisors who will offer academic help, financial information, and emotional support to Latina/o students during their graduate careers. Many Latina/o graduate students lack access to role models, mentors, and peers from similar backgrounds, with whom they can identify and from whom they can receive guidance. Graduate school can be a very isolating and alienating experience for Latina/o students, and finding peers and mentors who will function as part of a social support system is critical if graduation rates for these students are to improve.

Recommendation: Recruit Faculty of Color and create faculty mentor programs. Institutions must recruit more Faculty of Color in all academic departments to support the Students of Color enrolled in their programs. Graduate programs should create mentoring programs that facilitate supportive mentor relationships between faculty and students while offering faculty members incentives to participate. The faculty members willing to serve as positive role models and mentors must have a vested interest in the students’ academic and emotional well-being. Faculty who may not have experience interacting with Latina/os should be provided with support on how to better meet the needs of these students.

4. Financial Aid
The amount of literature that discusses the significance of financial aid for Latina/os who want to attend a graduate or professional school is limited, but the research that has been done highlights the importance of providing adequate funding for these students (Nettles, 1990; Solórzano, 1993). Financial assistance helps ensure the entry of Latina/o students into graduate programs and their persistence after they begin their studies. Graduate funding has become a critical concern given ever-increasing student fees, ever-deeper cuts in educational spending, and the limited amount of available student aid. Financial aid is often the deciding factor as Latina/os consider whether to enroll in a graduate or professional program. Sufficient funding allows graduate students to leave full-time employment and focus on their projects, and incentives should be provided so that mentoring relationships can develop. Fellowships and grants must be awarded to facilitate completion of the dissertation phase. Research grants should be awarded to faculty members who have concrete plans to employ Latina/o students on their projects, and incentives should be offered to departments and faculty that attach increased funding for fellowships and graduate assistantships to the number of Latina/o students recruited to and graduated from each department.

Conclusion
This report has explored the research literature on Latina/o students throughout the four segments of the educational pipeline: K-12, community college, undergraduate, and graduate. From this literature, we have identified a number of factors that are critical if Latina/o students are to make successful transitions from one segment of the pipeline to the next. The policy recommendations that we have provided for each segment will not only improve the educational experiences of Latina/os but also begin to repair cracks in the pipeline, where so many Latina/o students are lost. Our policy recommendations, which are targeted at educators, administrators, faculty, students, and families, are offered to initiate greater educational access and opportunity for the many Latina/o students in the greater Los Angeles area. We conclude with a summary of policy recommendations.
SUMMARY OF THE POLICY RECOMMENDATIONS

K-12 SEGMENT
1. Eliminate overcrowding in the schools.
2. Provide teacher training and resources that focus on the strengths of Students of Color and that contribute to higher teacher expectations.
3. Implement the “A-G” curriculum as the default curriculum.
4. Hire teachers with full credentials who are trained in cultural competency and college counseling.
5. Provide college counseling as early as elementary school.
6. Create a school culture that acknowledges and respects each student’s linguistic and racial/ethnic background.
7. Schools need to engage parents and provide information about the college-going process.

COMMUNITY COLLEGE SEGMENT
1. Incorporate a transfer culture on all California Community College (CCC) campuses:
   a. Increase accessibility to the critical information that is necessary for transfer by expanding the Articulation System Stimulating Interinstitutional Student Transfer (ASSIST) project.
   b. Provide a rigorous curriculum for all students by instating the Intersegmental General Education Transfer Curriculum (IGETC) as the default curriculum.
   c. Increase support programs and services that are tailored to those needs of students by establishing learning communities.

THE UNDERGRADUATE SEGMENT
1. Involve parents and families in college outreach programs.
2. Colleges and universities must institute a mission to reinforce their commitment to academic and social equality among all students.
3. Institutions should implement faculty-student mentorship programs.
4. Increase the availability of need-based financial aid to keep pace with increases in college tuition.

THE GRADUATE SEGMENT
1. Incorporate families into the graduate school experience.
2. Establish a commitment to diversity at all colleges and universities and within academic departments.
3. Recruit Faculty of Color and create faculty mentor programs.
4. Increase the opportunities for Latina/o graduate students to obtain fellowships and assistantships.

NOTES
The purpose of the 2006 Latina/o Education Summit Conference is to identify the factors that are critical if educators are to successfully prepare Latina/o students to make the transition from primary to secondary and secondary to postsecondary schools. Our goal is to compile policy recommendations that come from the research literature and that offer practical solutions to educators and policy makers. The structure of the Latina/o Education Summit has been framed largely by the research of UCLA faculty, alumni, and graduate students. By focusing this conference on the greater Los Angeles area we will be able to share, create, and build on the research, resources, and relationships necessary to repair and strengthen the pipeline, so that more Latina/o students are able to make successful educational transitions.

1. The term Latina/o refers to a non-homogenous group of persons of Mexican, Puerto Rican, Cuban, Central American, and South American heritage. It should be mentioned that while most studies use the term Latina/o as a homogenous category, there are differences among and within the various Latina/o subgroups (see Figure 2).
2. Data for Latinos is also provided in Figure 1, represented by the number following the slash.
3. Chicana/o are female and male persons who have familial and/or cultural ties to Mexico and live in the United States, regardless of immigration status. They comprise a subgroup within the Latina/o population.
4. The terms Students of Color and Faculty of Color are capitalized to reject the standard grammatical norm. Capitalization is used as a means to defy the marginalization of this group; it is a grammatical move toward social and racial justice.
5. See Figure 1.
6. In culture deficit theory, children are deemed to be disadvantaged because they enter school without prerequisite cultural knowledge and skills and because parents neither value nor support their children’s education. This definition is adapted from Garcia & Garcia (2004). For further discussion on cultural deficit theory see Valencia & Solórzano (1997).
7. Socially marginalized groups are those that are not recognized or validated when compared to the predominant culture in a particular society. The recognition of cultural wealth debunks notions of cultural deficit in regard to People of Color.
8. It is important to note that the data were not disaggregated into subgroups within the Latina/o population; doing so might reveal even greater disparities between various groups (see Figure 2).
9. We use this age cohort to identify those who have completed their education by the age of twenty-five or after.
10. Success for undergraduate Latina/o students is defined in this report by whether a student graduates with a bachelor’s degree or a graduate degree from a college or university.
11. The Border Protection, Antiterrorism, and Illegal Immigration Control Act of 2005 (H.R. 4437) was introduced by Representatives James Sensenbrenner (R-WI) and Peter King (R-NY) in December 2005. This bill proposes that any undocumented person(s) in the United States will be charged with a felony for their illegal presence in the country. It also bars people convicted of undocumented status felonies from ever gaining legal status in the United States. Moreover, the bill proposes that anyone who assists or conceals the undocumented status of a person(s) from the U.S. government, regardless of legal status, will also be charged with a felony and can be sentenced from five to twenty years in prison, if convicted. For more information see Library of Congress’s Thomas database: http://thomas.loc.gov.
12. Academic self-concept is defined in this report as a hierarchical, multidimensional construct resulting from a negative racial climate in which students form opinions about themselves and their abilities in distinct and independent areas. Examples include feelings related to lack of academic preparation, negative reactions about being in a competitive place, difficulty speaking in class and a subsequent loss of self-confidence (Nieves-Squires, 1991; Hurtado, 1994; Williamson, 1994).

REFERENCES


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