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**Increasing Latina/o Students Baccalaureate Attainment:
A Focus on Retention**

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Foreward

Research continues to provide statistical backing for what is clear and can no longer be ignored by leaders in higher education as well as policy makers at every level of government: the Hispanic population in the United States is the fastest growing segment of the population, yet the percentage of Hispanics graduating from four-year institutions remains despairingly low.

Retention efforts over the years have shown local and even regional promise, however Latino/a graduation rates have not responded. Oseguera, Locks and Vega take on this statistical reality with hopeful pragmatism. After thoroughly exploring and describing retention theories presented by the extant literature, the authors review factors impacting Latino/a retention efforts, not with a dry recitation of the research, but with definitive support of viable solutions and an expectation that they be considered in a holistic manner.

What follows is an “unapologetic” focus on a race sensitive framework intended to educate all concerned parties (practitioners, administrators and researchers) and to be applied to retention efforts. With this in mind, Oseguera, Locks and Vega present successful programmatic efforts that clearly should be expanded and emulated nationwide. To do so without haste only expands the disgraceful national deficit of Latinos/as with a college degree.

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Abstract

The growth in the Latina/o population has increased their representation in postsecondary institutions. Yet, merely 10 percent of all Hispanic Americans ages 24-64 currently graduate from four-year institutions [National Center for Education Statistics (1998) quoted in President's Advisory Commission, 2003; Solórzano & Yosso, 2000]. Notwithstanding years of retention efforts, graduation rates of Latinas/os remain alarmingly low and Latinas/os remain among the least likely racial/ethnic groups to complete their bachelor's degrees (Astin & Oseguera, 2003; Berkner, He, & Cattaldi, 2002; Fry, 2002). The purpose of this review is threefold. First, we go beyond traditional theory and highlight those scholars who shed new information on retention for Latina/o students. Second, we summarize factors that affect Latina/o students in particular. Third, promising practices for effectively retaining Latina/o students at two- and four-year higher education institutions are highlighted.

Keywords: Latina/o students, retention, baccalaureate attainment, undergraduate retention, education pipeline

Introduction

Despite years of retention efforts, graduation rates of certain populations remain alarmingly low. Of the Latina/o¹ students who enroll in college, only 46 percent attain their bachelor's degree. Further, merely 10 percent of all Hispanic Americans ages 24-64 currently graduate from four-year institutions (National Center for Education Statistics quoted in President's Advisory Commission, 2003; Solórzano & Yosso, 2000). What makes these low rates even more sobering is the fact that the Latina/o population is the fastest growing racial/ethnic minority group in the U.S. having reached more than 35 million in 2000, which represented 12.5 percent of the total U.S. population and is projected to nearly double to 24 percent by 2050 (U.S. Census Bureau, 2000). In fact, Latinas/os have already surpassed African Americans as the largest "minority" group. By the year 2020, it is projected that over 20 percent of the children in the United States under the age

¹ In this paper, the term Latina/o is used to describe students from various Latin American, European, and Caribbean Island communities. The term Latina/o includes students who primarily self-identify (both native U.S. and foreign born) with the following geographic regions: Mexico, Central America, South America, Spain, Portugal, and the islands of Cuba, Puerto Rico, and the Dominican Republic. Since the term Hispanic is also widely used in the literature to describe these populations, this paper will also use the term Hispanic interchangeably with Latina/o.

of 18 will be Latina/o (Llagas & Snyder, 2003). This increase in the Latina/o youth coupled with the increase in Latinas/os graduating from high school has contributed to their growing representation in U.S. higher education institutions.

Despite their larger numbers in postsecondary institutions, Latinas/os are among the least likely racial/ethnic groups to complete their bachelor's degrees (Astin & Oseguera, 2003; Berkner, He, & Cattaldi, 2002; Fry, 2002). With the predicted explosive increase in Latina/o and low-income students on college campuses, it is imperative for higher education institutions to reassess and improve how they are supporting and retaining this growing population of nontraditional and under-served students. While it is challenging for most students to transition to and complete college, it seems especially difficult for Latina/o students for a variety of reasons, such as lack of financial resources (Olivas, 1997), linguistic barriers (Soto, Smrekar, & Novecki, 1999), poor college preparation (Garcia, 2001), and difficulty making academic and social adjustments (Hurtado, Carter, & Spuler, 1996). Rather than prepare a manuscript of existing knowledge of retention for Latina/o students, which Ray Padilla (2007) has recently accomplished in an extensive report to the Lumina Foundation (see Padilla's *Camino de La Universidad*, 2007), we turned our attention to synthesizing advances in retention theory on Latina/o populations, to identifying literature on aspects of retention that are understudied or studied outside the context of retention, and to highlighting promising practices for effectively retaining Latina/o students at four-year higher education institutions so that they will graduate with a bachelor's degree in a timely manner. Where

applicable, attention to two-year institutions will be included since the majority of Latinas/os begin their college careers in two-year colleges and universities (Harvey, 2003; Llagas & Snyder, 2003).

Before moving into a further discussion of these issues, it is important to acknowledge the heterogeneity of the Latina/o population. This group represents a variety of national, ethnic, racial, social, and class backgrounds. Moreover, Latinas/os maintain varying immigration and citizenship statuses, speak different languages and dialects, vary by time of arrival in the U.S. and reside in different regions of the country (Oboler, 1995). Given the diversity of the pan-ethnic Latina/o population, higher education personnel must work toward a better understanding of the unique attributes of the specific populations that enroll on their campuses. Where applicable, we attempt to distinguish between research that is generalizable to the Latina/o group as a whole and research that is Latina/o ethno-specific.

Methods

This literature was located through searches completed using online databases ERIC, PsychInfo, and Sociological Abstracts. Articles, books, reports and other documents were deemed relevant if they had some bearing on the theoretical underpinnings of this review and addressed Latina/o student retention directly or indirectly (by focusing on minority students), and includes writings on two and four-year institutions. Our analysis focused on studies and documents deemed most relevant to the college experiences of Latina/o students. Thus, a detailed discussion of the literature that examines retention of all college students

or all students of color is beyond the scope of this paper. However, where relevant, we include specific research related to the retention of students of color. Institutional research documents were also reviewed to highlight promising practices/programs around the nation that are successful in targeting, retaining, and graduating Latina/o and other racial/ethnic minority students. We included research focusing on Latina/o students and largely limited our search to published works since 1995². We selected works after 1995 as this was a period that reflected major court rulings and/or state legislation such as *Hopwood v. Texas* in the Southwest and proposition 209 in 1996 in California which affected the use of race-based considerations in admissions and to some degree retention efforts. In our review, we are conscientious of the fact that specifically targeting racial/ethnic groups may be impermissible by law in some states so we suggest you keep that caveat in mind when deciding how best to approach the retention of Latina/o students within your particular state context.

We begin this review with a definition of retention, offer a historical look at how knowledge of retention has evolved, and then highlight theoretical advances in retention theory for Latina/o populations. We organized our review according to the gaps in the existing research that prominent retention scholars have posited as potentially influential in Latina/o college student retention. Our analyses move beyond individual, deficit explanations and highlight other

² Where seminal research on a specific topic was published before 1995, we elected to include it in our review.

relevant areas and practices such as ethnic identity, campus climate, cultural empowerment, civic engagement, non-cognitive considerations, and institutional receptivity to more effectively advance Latina/o student retention. We highlight two frameworks that incorporate some of the salient research gaps we identify to advance a more holistic perspective on retention. We conclude with promising practices to offer a synthesis of existing practices that are effective and/or have the potential for influencing retention for Latina/o populations and end with a synopsis of elements and actors needed to sustain retention efforts.

Defining Retention

The traditional persistence literature uses the work of Spady (1970, 1971) and Tinto (1975, 1982, 1987, 1993) to frame investigations of why students leave college. Tinto's model in particular rests largely on the notion that students are the primary if not only actor in pursuing an undergraduate degree and is based on the notion that students must become integrated in other college environments. The term integration implies an assimilationist bias and Tinto's model rests on students of color being assimilated into their college environment. Despite its dominance in the literature, we recognize the criticism about the lack of applicability of an assimilationist framework to minority students (Hurtado & Carter, 1997; Rendón, Jalomo, & Nora, 2004; Tierney, 1992). Beginning with Bean, the conceptual explanation of college student departure begins to shift to include college experiences and with this shift there is an implied responsibility for colleges and universities to retain their students. Thus, the definition of

retention used in this review stems from the work of Braxton, Hirschy, and McClendon (2004), in which they define college student departure as the result of individual students interacting with their institutions in a specific context and that “the onus of retention or persistence [does not] rest with the individual students” (p. 4). Based on this definition, persistence can be framed as the outcome of individual student behavior, whereas retention is the outcome of institutional efforts and action. For the purposes of this review, we use retention as an umbrella term to encompass the multiple and varied conceptualizations and definitions used throughout higher education literature. Our definition of retention encompasses the individual and institutional actions, behaviors, resources, and processes that are captured by scholars’ use of the following terms: dropout, stop out, student departure, and student attrition. A distinct feature of this review is the focus on the institutional actions and resources which promote Latina/o student retention, including long-standing programs such as TRIO (and Student Support Services) and more recent programs like Adelante and ENLACE.

Historical Overview of Retention

MacDonald and Garcia (2003) posit that the years that represent the greatest increase in Latino/a enrollment on college campuses were the 1960s which they term, “el movimiento en higher education.” This era witnessed the Chicano and Puerto Rican Civil Rights movements, as well as the passage of the 1964 Civil Rights Act and the 1965 Higher Education Act. These movements and legislation contributed to the growth of racial/ethnic minorities on college campuses and in particular, Latina/o students. This era witnessed growth in

funding for students to attend college, demands of campuses to enroll greater number of Latinas/os, and demands for culturally specific programs on college campuses. However, campuses at the time were not prepared to deal with the needs of increasingly diverse student populations (Berger & Lyon, 2005). Borrowing extensively from Berger and Lyon's (2005) historical overview, we provide a brief historical look of how our knowledge of retention has changed throughout the years and how higher education has addressed these issues. Berger and Lyon (2005) term the 1960s, "Preventing Dropouts" and write, "there had been only limited attempts to systematically assess patterns of student persistence" (p. 17) or efforts to improve student persistence. The 1970s was then a period of "Building Theory," when the most notable frameworks were offered by Spady³ (1971), Tinto (1975), Astin (1975,1977), and Kamens (1971). Each of these scholars began to detail the nature and process of student departure decisions. By the end of the 1970s, retention theories were well established, albeit for traditionally White, male, middle class populations.

The 1980s were then characterized by Berger and Lyon (2005) as a period of "Managing Enrollments." Berger and Lyon (2005) posit that the study of retention expanded in part due to the conceptual advances of retention theory but

³ This review is not meant to provide an overview of traditional retention theories but rather a description of the evolution of retention thinking. For a more thorough review of the specific elements of the above-mentioned theories, refer to the authors' original works e.g., Spady (1971), Tinto (1975), etc.

also due to the continued demographic shifts in the population of undergraduates. However, in the 1980s, institutional leaders were also recognizing that the enrollment booms of previous eras were waning so campuses became more concerned with how to attract and retain students once they arrived on college campuses. National organizations and academic publications were increasingly concerned with retention and during this era, in addition to the empirical work being produced, there was also a new emphasis on practical methods for increasing retention (Hossler, 2002). In fact, this decade saw an increase in campus wide initiatives and programs aimed at retention including campus-based strategies aimed at the retention of racial/ethnic minorities and first-generation students (Braxton, 2000; Seidman, 2005).

By the 1990s or the period titled, “Broadening Horizons,” retention had become a full fledged area of study and became a priority of U. S. higher education. During this period, scholars began to test existing theoretical propositions to better understand the association of the posited direction of relationships. During the 1990s, ever more attention was paid to racial/ethnic minorities as more researchers of color entered academe and began to critically evaluate retention for students of color. Among other things, we learned that undergraduates often attend multiple institutions en route to degree completion effectively forcing the research community to rethink the concept of time to degree (Adelman, 1999). In effect, a broadened conceptualization of the processes and experience which lead to degree completion emerged.

In Berger and Lyon's (2005) final era, "Current and Future Trends," they demonstrate how retention efforts by the early twentieth century were fully entrenched on virtually every college campus. Despite the evolution of college student departure, retention rates for many student populations and across different institutional types remain alarmingly low. One major limitation in the evolution of retention studies is the continued attention to *traditional* college students. There are a number of reasons why Latina/o retention efforts have had such limited success. For example, some scholars attempt to fit the Latina/o experience into existing theories, designed to explain the experiences of White college students. Admittedly, our knowledge of retention issues for Latina/o students may be considered broad, but less attention has been paid to efforts that have been specifically advanced to assist students of color and, in particular, Latina/o students. This review, therefore, extends traditional theory and highlights scholars who offer insights into retention for Latina/o students and summarize literature that addresses gaps in current understandings about Latino student retention.

Existing Theory on Retention Most Relevant to Latina/o Populations

In this section, we highlight the major theoretical frameworks that have been applied to Latina/o populations and other racial/ethnic minorities. We offer a review of the more salient frameworks/constructs that researchers apply to Latina/o populations to better understand retention conditions. Given the space limitations, coupled with the fact that traditional retention theories' applicability

to ethnically and culturally diverse students has increasingly been questioned [see Cabrera and Nora (1994); Rendón, Jalomo, and Nora (2004); and Tierney (1992)], we will not delve into traditional theories, rather we will suggest further reading for individuals interested in traditional retention theory⁴.

Braxton, Hirschy and McClendon's Reframing Retention

Braxton, Hirschy, and McClendon (2004) expand Tinto's framing of social integration and summarize the key factors of social integration into the following four principal perspectives on persistence: economic, organizational, psychosocial, and sociological. The specific factors are: (a) the commitment of the institution to students' welfare, (b) communal potential, (c) institutional integrity, (d) proactive social adjustment, (e) psychosocial engagement, and (f) ability to pay. Based on their review of the literature assessing Tinto's theory on why college students leave, they present a number of factors and components of successful retention practices. Specifically, for residential colleges and universities, they recommend that orientation programs for incoming students should provide plenty of opportunities for quality interpersonal interactions with peers and that such orientation programs be mandatory. Braxton et al. also recommend that all incoming first year students be required to live in on-campus housing and within a housing unit, as a sense of community should be developed such that students have ample chances for social interaction with their fellow residents. Braxton and colleagues suggest that campuses facilitate the adjustment to college by promoting and encouraging proactive behavior during the first year

⁴ *Ibid.*

of college as it facilitates the successful transition to college. Additionally, they argue that increased opportunity to engage with faculty and peers, formally and informally, will lead to greater positive psychosocial engagement amongst students. Latina/o students have unique psychosocial experiences and challenges, and there are specific programmatic components that can increase their retention rates. Braxton and his colleagues recommend three key steps colleges and universities must take to increase persistence and retention rates amongst racial and ethnic minorities: (a) achieve and maintain a critical mass of students enrolled and retained, (b) make a space for diverse students (e.g. special programs, events and tangible acts) that show that the institution “honor[s] the history and cultures of different racial and ethnic groups”, and (c) adapt Tierney’s intervention model for “at-risk students” which emphasizes affirming students' identities and feeling incorporated (not assimilated) into their college environments (p. 77).

Latina/o students’ experiences are not void of racism, both structural and interpersonal; these students need support to successfully navigate their institutions and build relationships with professors and peers as they prepare for the next phase of their lives and careers. Historically, predominantly White institutions (PWIs) have established minority-centered programs to address the unique needs of their students of color and to counteract the negative campus climate. Given the changing landscape of higher education with regard to race and diversity, more research is needed to understand the role, function, and impact of intervention programs on minority student retention. At the end of this manuscript, we will briefly summarize some of the institutional programs that

promote individual persistence and institutional retention among Latina/o college students at critical junctures of their undergraduate careers.

Swail, Redd, and Perna's Connecting Retention and Academic Success

Swail, Redd, and Perna (2003) propose a geometric model of student persistence and academic achievement separate from their model and framework to explain minority student retention.⁵ This particular conceptualization of college student retention was too recent to have been empirically tested. However, their reconceptualization of college student retention is particularly relevant because it specifically focused on minority student retention. It is important to note that they propose a retention model that reconceives the relationships between academic achievement and persistence.

Swail, Redd, and Perna's retention framework contains five aspects: (a) financial aid, (b) recruitment and admissions, (c) academic services, (d) curriculum and instruction, and (e) student services. They recommend that financial aid officers pay particular attention to how they disseminate information to students, making more need-based aid available and creatively constructing aid packages, particularly for the disproportionately number of minority students in low-income brackets. As with most recommendations for recruitment and retention, Swail et al. suggest that campuses think creatively about how to identify

⁵ Swail originally presented his model for a student minority system as "Institutional Components of Student Persistence." (see Swail & Holmes, 2000, p. 399).

prospective students, including working with or sponsoring pre-college programs, involving school personnel in school visits, and providing quality orientations. They also call for a refocus of admission processes that would focus less on traditional assessments of merit (e.g. test scores) and focus more on assessing the student-environment fit. Academic advising, supplementary instruction, pipeline programs (e.g. pre-college and summer bridge programs), and opportunities for informal faculty-student contact make up the academic services portion of the retention model. Swail et al. also recommend that curricular assessment, review and revision, institutional resources, and support be provided for faculty to develop instructional strategies and effective pedagogies as effective ways to create positive relationships between curriculum, instruction, and retention. Finally, the student services component of the model includes housing, counseling, and accessibility.

Swail and his colleagues identify four critical points in the educational pipeline with regard to retention. First, they argue that retaining minority students begins with understanding their academic preparation. Next, they make the connection between access to college and lower high school graduation rates for students of color. Third, they extend the discussion of college access issues by highlighting the Latina/o college enrollment rates not keeping pace with the increase in the numbers of Latina/o high school graduates between 1989 and 1999. Lastly, the authors emphasize the low graduation rates for Latinas/os at both two- and four-year institutions. The authors then go on to present factors related to retention: (a) academic preparedness, defined as being prepared to do

college level writing, reading, and math and not needing remedial courses in this area and (b) campus climate, which was related to person-environment theories.⁶

Seidman's Retention Formula

Seidman (2005) defines retention as 'student attainment of academic and/or personal goals' (p. 296) and underscores the importance of (a) institutions understanding why students enroll and (b) assessing if this changes for students over time. He recommends that retention be closely aligned with the missions of an institution. Further, he distinguishes between three types of retention: (a) program (e.g. year to year, through graduation); (b) course (individual classes); and (c) student retention (see Seidman's definition above). Seidman's retention formula suggests the combination of identifying students who may experience academic or personal challenges in college with interventions that occur early, are intensive and are continuous is key to improving retention. For the purpose of this review, we will highlight Seidman's recommendations regarding interventions.

Early intervention can include outreach programs that target high school students, summer programs (e.g., bridge programs) and other programs related to admissions (Seidman, 2005). Seidman emphasizes that retention interventions must be intensive to the degree that they are able to employ the academic and/or

⁶ Person environment fit theories typically assert that college student development is the product of pre-college characteristics student enter college with and their interactions and experiences while in college (see Astin's 1970 Inputs-Environment-Outputs model).

social skills necessary to being successful in their college environment. The last element of successful interventions must be continuous, according to Seidman, suggesting that one-time or short-term programs are likely to be ineffective. Seidman suggests campuses that create campus wide retention committees, supported by senior administrators and led by senior faculty, which utilizes expert lectures, consultations, and readings from retention experts are poised to see positive changes in retention rates.

Nora, Barlow, and Crisp's (2005) Student/Institution Engagement Theoretical Model

The Student/Institution Engagement Theoretical Model is a comprehensive framework used to explain how students can successfully transition past the first year of college and towards degree completion. The theory posits that retention (or persistence) is influenced by a variety of factors: pre-college factors and pull factors, initial commitments to finish a degree, academic and social experiences during college, the development of cognitive and non-cognitive attributes (e.g., multicultural competencies and leadership abilities), as well as final commitments that are formed as a result of the college experience. Collectively, these elements of academic life determine the likelihood of a student's successful college completion. At the core of their theory is the idea of "engagement." In other words, involvement in a number of arenas matters. Whether a student persists or drops out is strongly affected by his/her degree of academic and social engagement, which are two integral forms of participation in college life (Astin, 1984; Mallette & Cabrera, 1991; Nora, 1987; Nora, Barlow, & Crisp, 2006; Pascarella & Terenzini, 1980; Tinto, 1993). Academic engagement

can include such indicators as faculty-student interactions, involvement in learning communities, and working with other students on school work outside of class. Social engagement can include such measures as participation in ethnic or Greek fraternity or sorority activities and participation in leadership activities on campus. In addition to the academic and social experiences on campus, whether students are provided with validation and positive mentoring experiences as well as how students perceive the campus climate also influences their decisions to remain enrolled in college. A critical component in Nora, Barlow, and Crisp's (2005) framework includes not only the role of outside agents in providing positive reinforcement to remain in college, but also factors that serve to detract from college completion. In particular, a student's inability to finance college has been found to reduce the likelihood of persisting through degree completion (Cabrera, Nora, & Castañeda, 1992; St. John, Cabrera, Nora, & Asker, 2000; St. John, Paulsen, & Starkey, 1996; Tinto, 1993). Nora et al. thus argue for comprehensive attention to multiple domains of Latina/o student lives.

Ornelas' Community College Transfer Conditions

With a few notable exceptions [see Johnson (2006)], few retention models exist at the two-year level. Much of the work on community colleges incorporates elements of traditional four-year theory and applies the results to two-year institutions. Two-year colleges, however, serve such an incredibly diverse set of constituents and have so many competing functions that it is difficult to effectively apply traditional theories to the two-year context. These competing missions include, the transfer function, the awarding of terminal Associates'

degree, access to certificate and vocational course work as well as lifelong learning courses (Dougherty, 1994; Kirst & Venezia, 2004). Since this review is primarily focused on baccalaureate degree attainment, rather than evaluation of retention theories, we instead focus on creating transfer cultures in two-year institutions. Understanding how best to facilitate transfer is one step towards four-year degree completion. What will be highlighted here is Ornelas' (2002) suggested elements for effective transfer. Developed primarily using Latina/o populations, Ornelas (2002) highlights seven elements of successful conditions required for transfer. These components include: a) personnel at the college must be committed and must prioritize the transfer function; b) institutions should provide programs with high expectations and accept responsibility for student transfer; c) there should be an emphasis and availability of a transfer curriculum and articulation with four-year colleges; d) student progress to transfer must be continually monitored; e) institutions should provide learning community programs so students can experience the transfer process in cohorts; f) institutions should establish bridge and partnership summer programs with universities; and finally, g) institutions must build on the assets and strengths of students, their families, and communities. In addition to these transfer conditions, Jalomo (2001), provides additional institutional policies that should be adopted to promote persistence at the community college. Similar to Ornelas, he calls for bridge programs, but he also calls for first-year seminars, sustained mentoring programs, and expanded orientation programs. Each of these institutional policies enhances students' opportunities to engage with the campus community and thus

increase achievement. With these components attended to, the movement between two-year and four-year colleges will become more seamless (Jalomo, 2001; Ornelas & Solórzano, 2004). The section on promising practices includes more concrete ways to put these conditions into action.

Despite our attention to and knowledge of retention, research gaps remain. The next section offers another lens to examine retention. We include psychological research that is often overlooked in the study of retention in an effort to frame our discussion more holistically. Non-cognitive factors have strong interpretive influences on Latina/o students' meaning making experiences and should be considered an important part of both retention research and retention programming. Finally, by incorporating these additional considerations we seek to broaden our understanding of retention in research and practice.

Expanding Knowledge of the Factors affecting Latina/o Student Retention

Historically, psychological research had been wholly concerned with the individual and considered social context, ethnic identity, and gender exogenous variables to be controlled for instead of examined (Gordon & Bridglall, 2007; Schooler, 2007). The narrow focus on the individual limited scholars' capability to examine and understand the higher education experiences of Latinas/os and other students who are educated in racialized contexts. This context includes higher education institutions' "historical legacy of inclusion or exclusion of various racial/ethnic groups [and the] psychological climate of perception and attitudes between and among groups" (Hurtado, Milem, Clayton-Pederson &

Allen, 1998, p. 282). The emergence of cultural psychology, educational psychology, and other related research areas within the field has expanded our knowledge of the influence of social structure on differential educational outcomes. These new approaches address the psychological and social underpinnings of Latina/o students' educational journeys and examine achievement more completely by recognizing that both individual disposition and social context are central to the study of educational outcomes. Finally, this category of explanations appreciates the intersectionality of race, class, gender and takes into account the significance of cultural traditions and the sociopolitical context of educational access and success.

Schooling Experiences beyond Academics

We begin this review by highlighting the psychological consequences of overemphasizing standardized academic measures for Latina/o students.

Latinas/os are particularly vulnerable to developing negative academic self concept and having negative perceptions of the campus climate because of their social position, history of underrepresentation on college campuses, and dissonance between the cultural expectations of higher education institutions and their home culture. For example, standardized assessments that categorize students into high or low ability groups are detrimental to academic identity development and "have been shown to influence the withdrawal decisions of students enrolled in college" (Nora, Barlow, & Crisp, 2005, p. 134). This is especially important to this discussion because Latina/o students tend to score lower than other ethnic groups on standardized exams (Contreras, 2005; Walpole

et al., 2005). Although evidence suggests that SAT scores are not necessarily predictive of academic performance after the first year of college (Smith & Garrison, 2005), there is a strong emphasis on standardized examinations for college admissions and a growing focus in the K-12 accountability movement. These exams hold a great deal of social weight and often determine what educational opportunities students will be exposed to throughout their educational careers.

At the elementary and secondary levels students are tracked into honors or regular curriculum based on test scores. The over reliance on standardized examinations often results in unchallenged continuation of these track assignments so that, consequently, the quality of students' educational experiences depends upon test scores. Although standardized examinations have more readily been identified as structural barriers, they also have psychological consequences. A study of Latina/o and African American high school students' perceptions of standardized college admissions examinations identify high levels of stress and suspicion of bias associated with these tests (Walpole et al., 2005). Latina/o students are highly concerned, in part because they understand the serious implications of their performance, but also because they perceive bias in the exam; Walpole and her colleagues conclude that these perceptions can hinder their participation and performance. Similarly, in a study of differences in achievement between Latina/o students and their peers, Contreras (2005) finds that "Latina/o students perceive themselves to be less academically competitive" than their White and Asian counterparts.

While acknowledging standardized exams as structural barriers, the aforementioned studies also exemplify the influence of non-cognitive factors on Latina/o student academic performance. Another example of non-cognitive influences is stereotype threat (Steele, 1997). Stereotype threat refers to minority students' fear of being viewed through the lens of a negative stereotype or confirming a negative stereotype associated with their group membership (*Ibid.*, 1997). Research on stereotype threat illustrates that psychological preoccupation can negatively affect the outcomes of the task at hand – regardless of individuals' level of aptitude. Although Mendoza-Denton and Aronson (2007) suggest that Latinas/os and African American students are particularly vulnerable to this phenomenon because the stereotype associated with them is a suspicion about their intelligence, future research should consider Latina/o students independently because these psychological experiments have been conducted primarily with African American students attending selective institutions. Examining if and how stereotype threat affects Latina/o students in high school would allow for an exploration of the extent to which standardized examinations serve as a psychological gatekeeper to higher education. Furthermore, integral to this discussion is to question if, and to what extent stereotype threat influences Latina/o students self efficacy beliefs, academic self concept, and their departure decisions while in college.

The overprediction phenomenon is a documented trend in which scores on standardized tests and prior grade point averages over predict the academic performance of high achieving minority students in college (Bridglall & Gordon,

2004; Mendoza-Denton & Aronson, 2007). The fact that high achieving minority students are also academically vulnerable exemplifies the influence of non-cognitive factors that cannot be accurately measured with standardized examinations. Conventional wisdom would have us believe that students most at risk for disengaging are those with dubious academic records. Yet, the overprediction phenomenon is an example and reminder to campus leaders that factors beyond traditional academic markers are also important in the retention of Latina/o students. Regardless of strong academic backgrounds, variables such as cultural and social isolation, negative stereotypes, low expectations from teachers and peers, and non-supportive educational environments can affect Latinas/os' academic performance and persistence decisions. That students' academic qualifications are important is unquestionable, yet this phenomenon provides a sobering reminder that retention includes much more than just grades. It is part of the institutional role to ensure that students remain intellectually committed, socially engaged, and enthusiastic about their educational prospects. Campus leaders should focus their efforts on creating inclusive and responsive campus environments in which students can continue to develop their academic prowess and engage the expected challenges of college life without additional constraints.

Ethnic Identity and Campus Climate

Ethnic identity and culture have a strong interpretive influence on students' meaning making processes. As Latinas/os navigate the many different facets of higher education they are confronted with institutional traditions that do not reflect their own and assumption-based practices about students that do not

apply to them. In her study of Latina/o ethnic identity, Torres (2006) finds that Latina/o college students at PWIs simultaneously navigate the obligations and expectations of their community of origin and the culture of higher education. In illustration of this constant negotiation, she developed the Bicultural Orientation Model (BOM) which includes four possible orientations: (a) a student is *Bicultural Orientated* if he/she exhibits high levels of acculturation and ethnic identity, (b) *Latina/o Oriented* corresponds to students who exhibit high levels of ethnic identity but low levels of acculturation, (c) *Anglo Oriented* if a student exhibits high acculturation and low ethnic identity, and (d) *Marginally Oriented* if he/she exhibits low levels of ethnic identity and acculturation. Dissonance occurs when students encounter institutions that are culturally exclusive forcing them to exist on the margins of two cultures or choose one over the other (Torres, 2006). In effect, Latina/o students are vulnerable to culture shock and feelings of doubt about their ability to succeed in the higher education environment which reflects Eurocentric traditions (Castellanos & Jones, 2003; Gloria, Castellanos, & Orozco, 2005; Hurtado & Ponjuan, 2005; Jalomo & Rendón, 2004).

Studies on campus climate find that students who perceive prejudice or bias on the basis of their race, class, gender, or sexual identity have difficulty adjusting cognitively, emotionally, and socially and may experience a conscious and unconscious resistance to campus which may lead to departure decisions (Hurtado & Ponjuan, 2005; Nora & Cabrera, 1996). Nevertheless, directly examining the influence of ethnic identity on perceptions of campus climate yields mixed results. While Hurtado & Ponjuan (2005) find that students who

maintain strong cultural ties are more likely to perceive their campus as hostile they also find that “actual experiences in the college environment play a more important role than student background in predicting perceptions of a hostile climate for diversity” (p. 244). However, Padilla (2007) reports that students with higher levels of cultural congruity perceive fewer educational barriers.

Additionally, Miville and Constantine (2006) find that Mexican American college students with higher levels of cultural congruity also exhibit higher help seeking attitudes.

Concerned institutional leaders should interpret these findings not as a challenge, but as an opportunity to integrate the espoused diversity mission of most colleges and universities with the lived values that students experience. Achieving structural diversity (numerical representation of people of color) is only one of the first steps in establishing cultural pluralism as a core institutional value and making it a priority at every level of activity (Hurtado et al., 1998). Numerical representation of diverse groups on a college campus does not automatically lead to more inclusive campus climates without programming that facilitates meaningful cross-racial communication and interaction (Gurin, Dey, Hurtado, & Gurin, 2002). Purposeful encouragement and facilitation of intergroup dialogue creates a multicultural context that is more conducive to success for Latina/o students (Hurtado & Kamimura, 2003). The common thread in the research highlights institutional responsibility to establish inclusive campus climates and perhaps more encouraging, that the effects of these commitments are real.

Nora (2001) suggests that measuring institutional commitment may in fact be a proxy measurement of the level of real and perceived institutional support of students. There are many ways campuses may demonstrate their investment in and commitment to students of color. For example, research demonstrates that having cultural events and Latina/o organizations on campus is important to the retention of students. Yet, institutions are limited in their ability to make explicit their commitment to students of color given the unreceptive sociopolitical context concerning race-conscious programs in higher education. This can hinder practitioners' ability to incorporate cultural markers in the recruitment and implementation phase of programming. In addition to presenting a structural obstacle to higher education practitioners who are often charged with the retention of students, it also sends a message that diversity is not a priority and may contribute to an unwelcoming institutional climate.

Civic Engagement

In 2004, the National Association of Student Personnel Administrators (NASPA) and the American College Personnel Association (ACPA) published *Learning reconsidered: A campus-wide focus on the student experience*. The report advocates for a more holistic understanding of student learning and the role of higher education in facilitating student success. Transformative education, as this new holistic process is termed, acknowledges that “few of the social, economic, cultural, political, and pedagogical conditions and assumptions that framed the structures and methods of our modern universities remain unchanged” (NASPA & ACPA, 2004, p. 1). The first educational goal of this initiative is

engaged citizenship—community service, social justice, and participatory involvement. The authors stress that the population that particular institutions serve should influence the implementation of educational goals.

The *Learning Reconsidered* report is part of the effort to better prepare students to actively engage and be productive members of a demographically, technologically, and socially diverse world. One of the most important strategies toward this goal is to create and facilitate structured opportunities for students to engage with others from different cultures and perspectives. When students are challenged in their viewpoints, they learn to recognize other equally valid perspectives and life experiences. This exposure stimulates higher-order analytical thinking about social and democratic issues that are better understood through a pluralistic or multicultural orientation (Hurtado, Engberg, Ponjuan, & Landreman, 2002). The benefits of initiatives that prioritize civic engagement and holistic perspectives are not contained in the Latina/o population—all ethnic groups, in fact the country as a whole benefits from college graduates who are able to consider issues from different perspectives and make informed decisions. Hurtado and Kamimura (2003) recommend three strategies to engender civic engagement through communication between racial groups: (a) programs that seek to change intergroup dynamics; (b) formal educational activities around race and cultural understanding; (c) activities to increase the campus knowledge of the Chicana/o – Latina/o culture. The recommended activities include sponsoring cultural events, facilitating structured intergroup dialogue, and including educational activities with a focus on ethnicity and culture. These activities allow

Latinas/os to broaden their perspectives and social networks to include people in and outside their ethnic group. A large majority of Latinas/os are first generation college students and have grown up in economically and racially segregated communities, they are likely to reach a higher level of consciousness about the inequalities they witness in their home environment. Their social responsibility may inspire them to continue on their educational paths in spite of the challenges they encounter along the way.

Diverse Faculty and Staff

Latina/o faculty and administrator presence on campuses has been proven to have a positive impact on student retention (Castellanos & Jones, 2003).

Latina/o faculty members and administrators are key players in institutional retention efforts because their presence sends a message of inclusivity. Moreover, they may serve as role models to students who doubt their ability to succeed in their new environment. When these faculty members and administrators take an active interest in retaining Latina/o students they serve as cultural liaisons between Latinas/os and higher education culture and are a source of validation. First generation and underrepresented students are especially responsive to institutional agents' expressions of interest and confidence in their potential (Rendón, 1994). Similarly, Tierney and Jun (2001) suggest that marginalized students may enjoy the benefits afforded to privileged students when institutional agents generate a "socialization process that produces the same sort of strategies and resources" that advantaged youth have access to (p. 210). Finally, these

institutional agents may also be a source of valuable information about financial aid, involvement opportunities, and advocacy on behalf of Latina/o students.

Finances Re-Considered

Financial aid is an important factor for Latino college student retention, both in the college choice process and during college (St. John & Noell, 1989; St. John et al., 1996; Thomas, 1998). However, financial aid has less influence on Latina/o and African American students attending their first choice compared to their Asian American and White counterparts (Kim, 2004). Such complexities must be appreciated if financial aid targeted towards Latina/o students is to facilitate access and college success in ways that increase retention rates. The type of aid and variation offered is key for Latino students and grants are particularly important (Alon, 2007; Carriuolo, Rodgers, & Stout, 2001). For example, in Indiana, Latina/o students most likely to be retained receive grants and loans as part of their aid packages (Hu & St. John, 2001). Adequate financial aid can help or hinder as students are in college, affecting their adjustment and freedom to become involved in campus life (Cabrera, Nora, & Castañeda, 1992; St. John, 1991, 2000; St. John & Noell, 1989). Additionally, receiving accurate and adequate information about financial aid is critical for low-income students, but more so for low-income Latina/o students (Carriuolo et al., 2001) as they have an inflated perception of college costs (Post, 1990).

Heller (2000) noted that the erosion of need-based aid between 1989 and 1995 had disproportionate negative effects on Latina/o college students. More recently, Long and Riley (2007) found that unmet need remains a barrier for

students of color and low-income students –even when packages included grants, scholarships and family contributions. Given the aforementioned patterns and Hilmer’s (2001) finding that Latinas/os were less likely to attend public four-year institutions when tuition increased, purely economic models and perspectives used to explain the relationship between financial aid and Latina/o student retention may be too simple to capture the economic realities Latina/o students and their families face. For example, in the case of Latina/o migrant farm workers, monetary motivations for college going and persistence is more complex as such motivations are largely about students’ desire to provide a better life for their families (Zalaquett, McHatton, & Cranston-Gringas, 2007). Finally, in evaluating financing college, serious attention must be paid to issues of loan debt after college. We have a relatively solid understanding that financing college is critical but we know less about how the accrual of educational loan debt affects Latina/o students’ post-baccalaureate plans, career choices, and aspirations.

Summary

Latina/o faculty members are still underrepresented in higher education. Latina/o students consistently report feelings of isolation and culture shock when they transition to college. Standardized exams serve as structural and psychological gatekeepers to college for many students of color and we are desperately uninformed about the non-cognitive aspects of Latina/o students’ experiences and how excessive loan debt after college affects Latina/o students’ post-graduate aspirations and attainment. Remarkably, even in spite of these obstacles, many Latina/o students do succeed. This is due in large part to the

resiliency of this population, but also to the work being done in exemplary programs throughout the country. Before highlighting promising practices and exemplary programs, we first provide a brief overview of two race sensitive conceptual frameworks as the dynamic sociopolitical environment will continue to have a profound impact on Latina/o baccalaureate degree attainment.

Expanding and sustaining the pipeline for minorities is one of the key issues facing higher education in the twenty-first century. This pressing issue is at the forefront of higher education policy. Due to the vagueness of the Supreme Court's rulings and anti-affirmative action ballot initiatives, minority-centered programs are at risk, threatening a viable strategy institutions may use to retain Latina/o students. Further, recent pushes to limit access for undocumented students and the lack of sound public policy on immigration that is both humane and inclusive increases the vulnerability of Latina/o students in higher education. Given the growth of the overall Latina/o population in the U.S., it is incumbent on higher education practitioners and scholars to further develop theoretical frameworks that explain retention and expand the body of empirical support for the Latina/o presence in higher education.

This section differs from the theoretical overview section in that here we adhere to one of the central tenets of critical race theory, and that is that we foreground race in our analysis and we do so unapologetically (Solórzano, Villalpando, & Oseguera, 2005; Solórzano & Yosso, 2001). In other words, we specifically highlight a framework that addresses the racialized context that Latina/o students must navigate in higher education. Where applicable, we weave

components of the above review into this race sensitive framework in hopes of helping to inform practitioners, institutional administrators, and researchers' future retention initiatives.

A Race Sensitive Conceptual Framework

To better understand Latina/o student retention, educators, scholars, and institutional leaders must intentionally consider the sociopolitical, cultural, and psychological facets of Latina/o schooling experiences. Based on this premise, Padilla (2007) has developed a conceptual model that illustrates the contexts Latina/o students navigate throughout their educational journeys; academic outcomes depend on the strategies they employ in the macro, meso, and micro context. The macro context includes demographics, immigration, and community issues. For example, the significance of population growth, English-only initiatives, and expressing a sense of social responsibility to the Latina/o community are considerations that exemplify the macro context. The meso context "represents the intersection of individual aspirations and institutional experiences" (p.5) and describes the educational opportunity structure that Latina/o students function within. The effects of attending or not attending elementary and secondary schools with college-going cultures, academic tracking, and the emphasis placed on standardized exams are some examples of the meso context. Finally, the micro context is concerned with the influence of Latina/o students' family and the institutional climate. The direct consequences of family socioeconomic status and parents' educational levels and the existence or non-

existence of Latina/o student organizations on campus exemplify the micro context. Although each of these categories has distinctive features, they are not meant to be separate because Latina/o students navigate these contexts simultaneously and their experiences within any one of these arenas can result in cumulative advantage or disadvantage; for a more detailed description of these contexts, see Padilla (2007).

Castellanos and Gloria (2007) also acknowledge the unique challenges of the Latina/o student population in their psychosociocultural framework (PSC). This approach is particularly relevant to higher education practitioners because it was originally developed to facilitate meaningful interaction between university counselors and their Latina/o students. The goal of PSC is to propose a more comprehensive definition of Latina/o student success by emphasizing the psychological, social, and cultural aspects of students' higher education experiences. Similar to Padilla's framework, PSC emphasizes that "each dimension both uniquely and collectively accounts for academic persistence decisions for students" (p. 384) and highlights important considerations beyond traditional markers of academic success.

These Latina/o student-centered frameworks facilitate a more holistic examination of students' higher education experiences and propose a redefinition of student success. By highlighting some of the unique challenges that Latina/o students encounter on their educational journeys, these scholars have taken an important step away from the deficit perspective which has been the dominant paradigm in examining the experiences of Latina/o students (Perez-Huber,

Huidor, Malagón, Sánchez, & Solórzano, 2006; Yosso, 2002). Instead of deeming students' cultural background or individual characteristics obstacles that prevent them from achieving educational success and releasing educational system from responsibility, these frameworks put the onus back on institutions to create responsive environments that better reflect the needs of an increasingly diverse student body. Although scholars have recently begun to purposefully examine social and psychological factors that contribute to our knowledge of Latina/o student success (Castellanos & Gloria, 2007; Gloria, Castellanos, & Orozco, 2005; Miville & Constantine, 2006) the extant literature still emphasizes cognitive markers instead of scrutinizing the effects of "self-beliefs and perceptions, social interactions and supports, cultural influences, and environmental contexts" (Gloria & Castellanos, 2003, p. 72) in the study of Latina/o student retention.

Retention Programs' Attention to Latina/o Populations

The past thirty years has seen predominantly White colleges and universities maintain or begin a number of minority-centered programs. Some of these programs have their roots in the 1960's and 1970's during the post-Civil Rights movement era as many were established to address the challenge of recruiting historically underrepresented students of color to PWIs (Anderson, 2002). Once admitted, given the institutionalized discriminatory and exclusionary practices, it came as no surprise that minority students needed more than access if they were to graduate from PWIs (Peterson et al., 1978). Additionally, institutional support in the form of programs and services affects how Latina/o

students perceive their institution [see Nora (2001)]. Retention programs must be carefully planned, well supported, and implemented as other programs. If not implemented with attention to these areas, such programs will not stop Latina/o attrition. Retention programs are implemented by faculty, academic-student affairs professionals, and in a growing number of cases, students. Furthermore, they vary widely in scope, size, and location (national, regional/state, institutional).

Minority student success in higher education greatly depends on the types of experiences they have at each educational system they encounter. Caldwell and Siwatu (2003) recommend that pre-college programs designed to facilitate college access for African American and Latina/o students focus on building programs that are aimed at helping students develop affective-based skills. Programs should allow for opportunities to build upon or develop positive self-concept with regard to education in addition to helping students feel less isolated. Caldwell and Siwatu also recommend that students learn how to conduct realistic self-appraisals and feel comfortable asking for help when necessary. Clearly, some practices are proving effective but there is need for more systemic attention to the question of: What makes them work and how can they be institutionalized on campuses and throughout the education community?

The final section highlights a select group of programs that have shown success since their inception or are innovative in their approach to retention. This list is not meant to be exhaustive but rather is meant to highlight promising practices for student retention so campuses can model their efforts around

established programs that are successful with Latina/o populations. We also urge the reader to explore the Excelencia in Education Web site (www.Ed.Excelencia.org). Since 2005, Excelencia in Education has produced best practices reports on working with Latina/o populations whereby they identify campus programs that have demonstrated success with their Latina/o populations. They highlight additional programs beyond those listed in this review.

For this review, we specifically concentrate on why certain programs are successful and what practices may be replicated. We also include exemplary practices of transitioning students from two-year to four-year institutions. We end with a list of elements of successful retention programs. We intentionally focused on studies that are applicable to a variety of Latina/o ethnic sub-populations. However, it is important for institutional personnel who are charged with the creation or the maintenance of programs to be sensitive to their own individual contexts. That is, who are your students? What Latina/o sub-populations do they represent? Are the Latina/o populations you work with commuters? How many students enrolling on your campus are English Language Learners? Do students attend part time? These questions are a reflection of Seidman's charge to define retention as the realization of a student's personal and academic goals, underscoring the importance of holistic programming when working with Latina/o students.

Again, this review is meant to elicit additional considerations those working with Latina/o populations should be mindful of. Where applicable, we include links to further resources so that campuses can explore in greater detail

programs that may best fit their specific campus needs. National programs are highlighted first, followed by system/state programs, and then institutional/local practices.

Examples of Effective Retention Programs

National Programs

Student Support Services (SSS). SSS is one of the programs housed under the federal TRIO programs. Campuses can submit applications to secure funding for the improvement of retention of students of color and low income students. According to the Department of Education website, “the program provides opportunities for academic development, assists students with basic college requirements, and serves to motivate students toward the successful completion of their postsecondary education. Student Support Services (SSS) projects also may provide grant aid to current SSS participants who are receiving Federal Pell Grants. The goal of SSS is to increase the college retention and graduation rates of its participants and help students make the transition from one level of higher education to the next.” (retrieved from <http://www.ed.gov/programs/triostudsupp/index.htm>) The types of projects include, but are not limited to, instruction in basic study skills; tutorial services; academic, financial, or personal counseling; assistance in securing admission and financial aid for enrollment in four-year institutions; and mentoring and special services for students with limited English proficiency (LEP). In a review of 3,000 first-time, full-time SSS participants at 30 sites and 3,000 non-SSS participants at

20 non-SSS sites, Chaney, Muraskin, Cahalan, and Goodwin (1998) found that SSS participants persisted at higher rates and concluded that the skills that SSS participants receive transfer into other academic and social arenas of college life. One exemplary practice is found at Prince George's Community College (PGCC) in Maryland. Although it serves a small percentage of Latina/o students, the campus serves predominately communities of color. The SSS program participants outperform their non-SSS counterparts who are eligible for SSS services and perform as well or greater than all students enrolled in the college. In addition to the SSS services described above, PGCC also incorporates cultural enrichment activities, extended mentoring if requested, academic success workshops, a summer enrichment program, and a newsletter to keep students abreast of a variety of college issues and news.

Summer Bridge. Another exemplary retention tool for Latina/o students are summer bridge programs. Summer bridge program activities range enormously. Some focus almost exclusively on academic support such as writing, mathematics, and reading. Many contain study skills such as time management, individual learning style, study strategies, and expectations for college work. Since students in summer bridge programs are often first generation college students, a section on the goals of a liberal arts education or general education and discussions about college life is included. Also, career counseling is found within the majority of programs, assisting students in expanding their vocational aspirations. Many programs are now developing a parent involvement component, since research indicates that parental influence is strongly related to student

success. Another goal is helping students to develop relationships on campus. This is accomplished by introducing students to campus offices and potential mentors. According to Kezar (2003), computer literacy is becoming a critical issue within the programs as is journal writing and self-reflective activities since they have also been identified in the research as important program components.

College Assistance Migrant Program (CAMP). The College Assistance Migrant Program (CAMP) assists students who are migratory or seasonal farmworkers (or children of such workers) enrolled in their first year of undergraduate studies. The funding supports completion of the first year of studies. The services include outreach to persons who are eligible, counseling, tutoring, skills workshops, financial aid stipends, health services, and housing assistance to eligible students during their first year of college. Limited follow-up services are provided to participants after their first year. (Retrieved from <http://www.ed.gov/programs/camp/index.htm>). We argue that these programs should be extended beyond the first year of college as CAMP programs produce marked improvements for such a vulnerable and transitory population. One exemplary example is St. Edwards University in Austin, Texas. The success of the program is enhanced by providing an orientation program not just for the student but for the family as well. One of the integral components is one-on-one advising and mentoring for the students and includes mandatory weekly meetings throughout the year (Merisotis & McCarthy, 2005).

ENLACE. ENLACE is a multiyear initiative to strengthen the educational pipeline and increase opportunities for Latinas/os to enter and complete college.

By 2007, the W.K. Kellogg Foundation is expected to invest more than \$35 million in the ENgaging LATino Communities for Education (ENLACE) initiative. ENLACE consists of 13 partnerships in 7 states that are working to increase the number of Latina/o graduates from high school and college. ENLACE recently released a report detailing lessons learned from the initiative and shows how communities can achieve these goals by building a pathway of support that extends from kindergarten through college. The report is available at www.wkcf.org/ENLACE.

Adelante. In 1993, Miller Brewing Company and the Hispanics Association of Colleges and Universities (HACU) established a program that is now the ¡Adelante! U.S. Education Leadership Fund. The Adelante Fund was designed as a vehicle to unite the needs of the U.S. corporate world (i.e. to have an educated workforce) with the needs of the growing Hispanic college-age population, a major factor in the projected growth of the Hispanic population. (Retrieved from http://www.adelantefund.org/adelante/About_US_EN.asp?SnID=203900822). One specific program can be found at San Jose City College in California. The Adelante program's success lies in its ability to engender social, cultural, and political consciousnesses in its students while offering cognitive course work and intensive counseling and academic support services. Adelante students were shown to have higher success rates than non-Adelante students (Kangas, 1994; Kangas & Sklute, 1992).

Regional/State Programs

Puente Programs. (<http://www.puente.net/>): Currently Puente operates in 56 community colleges and 32 high schools in California. Its goals (initiated in 1981) are to increase retention, general education requirements completion, and transfer to four-year colleges. Originally, Puente was created for Latina/o students but given anti-affirmative action policies in California, programs such as Puente are open to all students. Laden (1998) describes the program and the reasons for success as inclusion and attention to the cultural aspects of Latina/o identity, bolstering self-esteem and self-confidence, as well as integrating counseling and mentoring components. Although produced over ten years ago, the author details how this program can be replicated at other two-year colleges and into four-year institutions that are still applicable today. Saenz' (2002) more current review also highlights components of Puente that make it successful and state that the Puente model is a prime template for designing programs for the increased success of transfer students.

MESA USA. Mathematics, Engineering, Science Achievement is an academic enrichment partnership program between eight states that helps educationally disadvantaged students excel in math and science and graduate from college with degrees in math- and science-based fields to support a national educational agenda on math and science. The programs share a common co-curricular academic enrichment model. The program has achieved considerable success. The components include academic planning, community service, family involvement, academic enrichment, hands-on engineering, career advising, field trips,

competitions, and workshops. Originally founded in 1970, the program serves pre-college, community college and university students at sites in Arizona, California, Colorado, Maryland, New Mexico, Oregon, Utah, and Washington.

(Retrieved from <http://www.mesa.ucop.edu/about/mesausa.html>)

Institutional/Local Programs

Arizona State University - Hispanic Mother-Daughter Program (HMDP). One exemplary practice that has been institutionalized is the Hispanic Mother-Daughter program at Arizona State University. The success of this program is due in part to the fact that it engages students and their families early in the educational pipeline. Junior high school girls and their mothers are introduced to the philosophy and practices of the program during the students' eighth grade year (Retrieved from <http://www.asu.edu/enroll/hmdp/eight.html>). Activities continue throughout the participants' entire high school career in order to prepare them to transition to the university. The program also includes a university component which includes an orientation session, academic counseling, a support group of HMDP alumni, and an assigned mentor. At the earlier levels the program involves bi-monthly workshops on the ASU campus, individualized attention at the high school site, and an assigned program advisor.

Purdue University - HORIZONS Student Support Program. One example of providing integrated academic and non-academic support is the HORIZONS Student Support Program at Purdue University. It was designed to increase the retention of first generation, low-income, and physically disabled students (Dale, 1995). The year-long freshman orientation course is the foundation of the

HORIZONS program. Students receive instruction from HORIZONS staff on academic issues for three hours per week and on personal growth and community building issues for two hours each week (*Ibid.*, 1995). According to Dale (1995), the students viewed the HORIZONS staff as Purdue faculty and consequently the students had a more positive perception of faculty campus-wide. In a truly institutionalized retention program, the faculty would have actually interacted with the students and could have provided even more benefits to the students. Despite the lack of faculty involvement, the HORIZONS program retained or graduated 85 percent of its students through 10 semesters as compared to only 47 percent in the control group (*Ibid.*, 1995). When assessing retention strategies, it is also important to look past the numbers and see if the quality of support can be enhanced to provide optimal academic achievement for the students.

Santa Ana Community College (SAC) - Summer Research Scholars Program.

The SAC Summer Research Scholars program is a collaborative program between Santa Ana Community College, a California State University campus and a University of California campus. While only three years old, the program can already boast success with its scholars including successful transfer and increased aspirations for post-graduate study. One of the unique components of the SAC program is its emphasis on research. Students are not only skilled to navigate the academic rigor of four-year colleges but they are also introduced to research skills necessary for post-graduate studies. The six-week program includes research training, opportunities to interact and network with faculty across all three campuses, a personal faculty advisor, and publication dissemination opportunities.

To reduce additional pressures to work during the program, students are provided with a stipend.

Santa Fe Community College - Comprehensive Minority SEM Program.

Community colleges offer many bridge programs and can be an important sector for identifying models. One model is the Comprehensive Minority SEM Program at Santa Fe Community College that aims at increasing minority involvement and retention in the sciences. The program is extensive, moving beyond the components typically offered (skills development, etc.), including support for tuition, books and fees; a faculty mentoring program; an Hispanic organization on campus; specific tutorial labs for students in their first year who complete the summer bridge program; and placement in work study positions in the math department (Kezar, 2003). This program not only retains students but positions them for greater success in their careers as they are apprenticed throughout the process.

The preceding snapshot sought to synthesize a multitude of efforts geared towards Latina/o student retention. In order to summarize our extensive reviews of the literature and promising practices, the final section will highlight areas successful programs employ and consider in their design.

Elements Needed for Successful Program Implementation.

Based on our review of retention literature on Latina/o students, a number of recommendations and strategies for action have been advanced by the various scholars reviewed. Above all, successful programs have to be institutionalized and must be a priority of the college. Campuses must be willing to invest campus

personnel, time, and resources towards improvements. Given space constraints, we will offer a bulleted list of recommendations for higher education personnel to consider as they undertake new initiatives or want to modify existing practices. In creating this list, we attempt to address these questions: What players are needed to ensure success of these various programs? What components are needed for successful retention programs for Latina/o students?

- Hold university presidents/chancellors accountable for making retention a campus priority.
- Create campus-wide retention committees responsible for monitoring student retention.
- Have clear goals and objectives that delineate what the program plans to achieve.
- Develop a Latina/o retention scorecard to better understand campus specific needs (Harris & Bensimon, 2007).
- Invest in pre-college/bridge programs to identify and understand students' needs as early as possible.
- Mandate and sustain orientation programs throughout the academic career for students and families.
- Utilize learning communities and more interactive inside and outside classroom learning strategies to engage students and make students feel like they belong on campus.
- Provide both academic and non-academic (social and emotional) support.

- Train faculty on how to validate and mentor Latina/o students and reward faculty for actively reaching out to students (e.g., make it a part of the tenure evaluation).
- Front-load institutional financial aid; provide financial aid literacy programs for students and their families.
- Require universities to report retention rates by family income level; provide additional federal funds to those universities successful at retaining and graduating low-income students.
- Develop and maintain partnerships between the community, K-16 schools, and the corporate sector.
- Collect data and conduct evaluations for program improvement.

Conclusions

The retention of Latina/o students should be considered one of the most urgent issues in higher education today. The country cannot afford to continue under educating the fastest growing population in the United States without experiencing serious consequences related to economic viability and global competitiveness. Because access to a college education is only one part of a larger goal, we cannot tout numerical representation of Latina/o students as success. Retention refers to the institutional efforts implemented by institutions toward the goal of graduating students; although great gains have been made much of the work is still ahead.

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