

Lost Among the Data: A Review of Latino First Generation College Students

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Over the past decade, the Latino population within the U.S. has grown from 35.3 million to 50.5 million, composing 16.3 percent of the total U.S. population (Ennis, Ríos-Vargas, & Albert, 2011). In fact, more than half of the growth in the total population of the U.S. from 2000 to 2010 can be attributed to the increase in the Latino population (Ennis et al., 2011). Yet, while Latinos clearly constitute a vital portion of the U.S. population, they continue to face barriers in the pursuit of postsecondary education. Only 37 percent of Latino high school completers between the ages of 18 and 24 are enrolled in college, compared to 40 percent of Black and 49 percent of White high school completers (Santiago, 2011b). And, only one in ten Latino adults between the ages of 18 and 24 hold a college degree (Brindis, Driscoll, Biggs, & Valderrama, 2002). During the 2007-2008 academic year, approximately half of all Latino college students had parents whose highest level of education was a high school diploma or less (Santiago, 2011b). If the college enrollment and achievement gaps for Hispanics are to close in accordance with the nation's degree attainment goals (Santiago, 2011b), it seems that more Hispanic students from first-generation college backgrounds must gain greater access to and success in college.

The purpose of this white paper then is to provide a profile of what is currently known about Hispanic first-generation college students. Since there is relatively little extant literature that specifically examines the experiences of Hispanic first-generation college students, however, we will construct this profile in part through extractions from the growing bodies of literature that have been written to provide information on Hispanic college students as well as on first-

generation college students more generally. We will also attempt to construct this profile while acknowledging differences between the ways in which Latino first-generation college students have been defined. Though we will refrain from utilizing literature that refers to “first-generation” as an immigrant status, we do draw from literature which considers “first-generation” as defining students whose parents did not *enroll in* college (e.g. Benmayor, 2002; Nuñez, 2011; Saunders & Serna, 2004) and whose parents did not *graduate from* college (e.g. Boden, 2011; Torres, Reiser, LePeau, Davis, & Ruder, 2006). As Ward, Siegel, and Davenport (2012) have indicated, such a discrepancy in definition can have serious administrative implications. Thus, it is important to keep this in mind when reviewing the literature and attempting to surmise practical implications.

In the following sections of this literature review, we will examine some of the theoretical frameworks that may be considered appropriate for the study of Latino first-generation college students, the high school graduate rates and college aspirations of prospective Latino first-generation college students, the college enrollment rates and factors impacting the college adjustment and academic performance of Latino first-generation college students, the college persistence and graduation rates of Latino first-generation college students, and some programmatic interventions that have shown some success in serving Latino first-generation students. Finally, we will conclude with recommendations for further research on this topic.

Theoretical Frameworks

Tinto’s (1975) theory of student integration has been so widely used in studies concerned with college student persistence and departure that its central ideas have virtually become considered common knowledge within the field of higher education (Guiffrida, 2006). Using Durkheim’s (1961) theory of suicide to inform his work, Tinto suggests that departure from

college can be understood as a longitudinal process of interactions that take place between individual students and the academic and social systems present within the colleges they attend. If a student lacks academic integration, which can be measured by grade performance and intellectual development, and lacks social integration, which might involve social interactions and relationship development with peers and faculty, the student will be more likely to develop a low institutional commitment and, subsequently, to choose to dropout from the institution (Tinto, 1975). This being the case, Tinto posits that college student departure may be attributed to a lack of congruency between an individual and the academic and social norms espoused by an institution.

Despite the near ubiquity of Tinto's (1975) theory, it has been the subject of considerable criticism, especially with regard to its applicability to diverse student populations. Tierney (1999), for example, suggests that, by placing the onus on students to assimilate to institutional values and norms in order to be more likely to persist, student integration theory encourages students from nontraditional backgrounds to commit a form of cultural suicide, cutting all ties with their home cultures. He advocates instead for a model of cultural integrity, which places more responsibility on institutions to create climates which are inclusive of the precollege cultures of a diverse student body. Along similar lines, Rendón (1994) links the expectation for nontraditional students to assimilate into a new, dominant institutional culture to nontraditional students' development of feelings of alienation and intimidation within the college environment. Whereas such feelings of alienation and intimidation may lead students to doubt their abilities to succeed within college, she finds that external agents, including faculty, staff, and administrators, can provide these students with academic and interpersonal validation that empowers them to believe in their abilities to be powerful learners (Rendón, 1994). Also concerned with the

problematic nature of integration and assimilation for students from historically marginalized groups in higher education, Hurtado and Carter (1997) propose sense of belonging as a useful measure for recognizing that students may simultaneously maintain affiliations within multiple communities as well as for assessing specifically “which forms of social interaction (academic and social) further enhance students’ affiliation and identity with their colleges” (p. 328). The common thread among these critiques of Tinto’s theory of student integration is that educators and institutions must recognize that students from diverse backgrounds will carry with them diverse ways of being and knowing. Rather than attempt to eradicate these cultural differences, educators and institutions must then find ways to help students not only to maintain their senses of identity but to develop them into unique strengths that contribute to their ultimate success in college. Such theoretical considerations are essential in the examination of how institutions may best serve Hispanic students, including the subpopulation of Hispanic first-generation college students.

Along these lines, the researchers who have conducted studies on Hispanic first-generation college students have done so using theoretical and conceptual frameworks which seek to understand students’ backgrounds and experiences holistically and without the assignment of deficits. As in Nora’s (2003) Student/Institution Engagement Model, many have conceptualized students’ withdrawal and persistence choices as resulting from a collection of precollege characteristics, institutional factors, and environmental pull factors. Taking nods from Hurtado and Carter (1997), some have examined the experiences of Latino first-generation college students through evaluations of how campus climates impact students’ senses of belonging. In keeping with the work of Rendón (1994), others have looked most closely at students’ existing social networks. Several others have also utilized Bourdieu’s (1977, 1986)

concept of habitus and theory of multiple capitals, which together suggest that students develop their future aspirations through socialization processes and are able to work toward attaining these aspirations through their accumulation (or lack of accumulation) of financial, informational, social, and other resources. By looking at Latino first-generation college students through such theoretical lenses, researchers have avoided adding to a narrative that blames this population for any gaps in achievement. Instead, they have built a newer narrative which suggests that Latino first-generation college students have the potential to achieve parity with other groups in terms of educational attainment given the appropriate support.

High School Graduation Rates and College Aspirations

Though projected to increase significantly over the next decade, the college-going rate of Latino high school completers is currently lower than that of other groups (Santiago, 2011b). This suggests that any gaps in college attainment for Latino students may begin with college access. As such, it is important that we begin this review by looking at the literature on prospective Latino first-generation students, those Latino students in middle and high school who have the potential to become among the first in their family to attend or to graduate from college. We draw from the literature on prospective first-generation college students, on prospective Latino college students, and on prospective Latino first-generation students to learn more.

Literature on Prospective First-Generation College Students

Choy (2001) notes that, of the nation's cohort of high school graduates in 1992, only 27 percent came from families in which neither parent had attended college. In comparison to prospective continuing-generation students, prospective first-generation students tend to pursue a less rigorous high school curriculum, particularly in science and math (Choy, 2001); are likely to

earn lower scores on college entrance exams (Schmidt, 2003); and tend to earn lower high school GPAs (Ward, Siegel, & Davenport, 2012). Perhaps as both the result and cause of such differences, first-generation college students have been found to have lower educational aspirations than continuing-generation college students (Bui, 2002; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). This finding is significant considering that the college aspirations that students develop as early as in the eighth grade may predict students' likeliness to attend college (Bui, 2005).

Literature on Prospective Latino College Students

Unfortunately, the literature seems to show that there is a shrinking pipeline of Latino students into college. Although Hispanics consist of 16 percent of the total national population (Ennis et al., 2011), they consist of a greater percentage (18 percent) of the nation's population of 18- to 29-year-olds (Santiago, 2011a). Yet, while Latinos make up 21 percent of the nation's ninth graders, they make up only 13 percent of the nation's high school graduates (Santiago, 2011a). In 2000, only 63 percent of Latino young adults between the ages of 25 and 29 had graduated from high school, in comparison to 87 percent of African Americans and 94 percent of non-Latino Whites (Brindis, Driscoll, Biggs, & Valderrama, 2002). Brindis, Driscoll, Biggs, & Valderrama (2002) further indicate that these rates may differ by immigration generational status. 56 percent of foreign-born Latinos between the ages of 16 and 24 were found to graduate from high school, in comparison to 80 percent and 84 percent of second-generation Latino immigrants and third-generation Latino immigrants, respectively.

Drawing Connections between the Prospective First-Generation and Latino College Student Literature

Few exceptions, such as those by Pérez and McDonough (2008) and Gibbons and Borders (201), have explicitly considered both Hispanic identity and prospective first-generation college status among secondary school students. Conceptually grounded in chain migration theory within a social capital framework, Pérez and McDonough qualitatively examined how Latina and Latino students made their choices as to which colleges to attend. They found that the Hispanic high school students in their sample, all of whom lived in the greater Los Angeles basin and many whom identified as first-generation college-bound, came to rely heavily on siblings, peers, relatives, and high school contacts when it came to making their college plans. Inversely, in their quantitative investigation of the differences in college-going expectations among prospective first-generation college students and prospective continuing-generation college students enrolled in middle school, Gibbons and Borders (2010) considered the additional effects of racial and ethnic backgrounds on students' college-going expectations. They found that, though most of the prospective first-generation college students in their sample planned to attend four-year colleges, they reported lower college-going self-efficacy expectations, a greater number of perceived barriers, less parental educational support, and lower positive outcome expectations related to college going than did their prospective continuing-generation college student peers. Additionally, the Hispanic students in their study were found to have more negative college-going outcome expectations and greater perceived barriers to college going than students from any other racial or ethnic background. Furthermore, Hispanic prospective first-generation college students perceived less support from school personnel than did their Hispanic peers whose parents had some postsecondary education (Gibbons & Borders, 2010). So, while

first-generation college-bound status and racial and ethnic backgrounds independently effect college-going expectations and college choices among students (Lundberg, Schreiner, Hovaguimian, & Miller, 2007), the findings of both Pérez and McDonough and Gibbons and Borders suggest that these two statuses may also interact with one another as they impact the college-going expectations and college choices of Hispanic prospective first-generation college students.

Literature on Prospective Latino First-Generation College Students

Though studies such as the two above have considered both first-generation college-bound status and Hispanic identity in their analyses, only two studies that we have found, Boden (2011) and Borrero (2011), have focused specifically on examining the experiences of Latino prospective first-generation college students. To gain intimate knowledge of these experiences, the researchers of both studies interviewed small samples of Latino and Latina high school seniors and utilized grounded theory research designs. In both studies, participants discussed the pride and responsibility that came with potentially becoming the first in their families to go to college. To explain this concept further, Boden notes that many of her participants “expressed a desire to find careers that would facilitate their ability to financially assist their families” (p. 101) as well as a belief that such careers would require a college education. Both studies also found that, though participants faced several barriers in their efforts to become college-ready, support systems, including family members, friends, and teachers, were vital to helping them to overcome these barriers and to make actionable college plans. In this way, Boden’s and Borrero’s studies highlight families and communities as assets to Hispanic students seeking to become the first in their families to pursue college.

College Enrollment Rates and Factors Impacting College Adjustment and Academic Achievement

While much of the quantitative data (e.g. Brindis et al., 2002; Bui, 2005; Choy, 2011; Terenzini et al., 1996) seems to indicate that prospective Latino first-generation college students, who identify as both first-generation college students and as Latino, face significant barriers to college enrollment, much of the qualitative data (e.g. Boden, 2011; Borrero, 2011; Pérez & McDonough, 2008) showcases the resiliency that these students can maintain in the face of these barriers. In this section, we explore the literature regarding Latino first-generation college students' enrollment and experiences in college. As we did in the previous section, we present findings from the literature on first-generation college students, Latino college students, and Latino first-generation college students.

Literature on First-Generation College Students

As aforementioned, prospective first-generation college students have been found to have lower college aspirations than prospective continuing-generation college students (Bui, 2002; Terenzini et al., 1996). This suggests that prospective first-generation college students may already be at a disadvantage regarding their likeliness of enrolling in college. Indeed, Choy (2001) found that, even for those who, as high school students, aspired to enroll in four-year institutions immediately following high school graduation, parental education impacted the likeliness of whether or not a student would actually attain this aspiration. Only 65 percent of prospective first-generation college students who aspired to enter a four-year institution actually did so within two years of high school graduation, compared to 87 percent of similarly aspiring students whose parents held bachelor's degrees or higher.

Data indicates that first-generation college students are also demographically different than continuing-generation college students. First-generation college students are more likely than their continuing-generation college student peers to come from lower-income homes, to be older, to have dependent children, to be women, and to be Hispanic (Choy, 2001; Nuñez & Cuccaro-Alamin, 1998; Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007; Terenzini et al., 1996). These demographic differences further impact their motivations to enroll in college, their decisions on where to enroll, as well as their academic and social integration while in college.

As first-generation college students are more likely to come from lower income homes, many have been found to report achieving financial security, through the attainment of post-graduate high-paying jobs, as a prime motivation for seeking a college-level education (Bui, 2002; Nuñez & Cuccaro-Alamin, 1998; Saenz et al., 2007). Their home financial situations, however, also may contribute to them reporting greater concerns regarding their abilities to finance a college education (Huber & Marks, 2005). This being the case, first-generation college students are more likely to consider financial issues and proximity to home as prime factors in their decisions of where to attend college (Nuñez & Cuccaro-Alamin, 1998; Saenz et al., 2007). Saenz, Hurtado, Barrera, Wolf, and Yeung (2007) suggest that first-generation college students may choose to enroll in postsecondary institutions within 50 miles of home as a means to avoid incurring the extra costs associated with living on campus. These factors may help to explain first-generation college students' tendency to enroll at public two-year institutions. Choy (2001) found that, among first-generation college students who aspired to attend a four-year institution as high school students, 20 percent end up enrolling in public two-year institutions instead. On a related note, Nuñez & Cuccaro-Alamin (1998) found that first-generation college students are “more likely than other students to attend public 2-year institutions (51 percent versus 37

percent); private, for-profit institutions (15 percent versus 6 percent); and other less-than-4-year institutions (5 percent versus 3 percent)” (p. 13). Such options may be more affordable and/or convenient than many four-year institutions. Furthermore, when first-generation college students do seek to enroll at four-year institutions, Saenz et al. note that institutional packages of financial assistance often strongly impact where they choose to attend.

With finances of great concern, first-generation college students, who worked 20 hours per week or more as seniors in high school, continue to feel the need to work through college (Richardson & Skinner, 1992; Saenz et al., 2007). They indeed have been found to spend significantly more hours per week working off-campus than their continuing-generation college student peers (Pascarella, Pierson, Wolniak, & Terenzini, 2004; Terenzini et al., 1996). Unfortunately, this need to work can also act as an environmental pull factor, drawing students away from certain aspects of the college experience. First-generation college students enrolled in community colleges, for example, were found to be more likely to attend part-time (Richardson & Skinner, 1992).

Using longitudinal data from the National Study of Student Learning on four-year institutions, Pascarella, Pierson, Wolniak, and Terenzini (2004) found several additional differences in the academic and social experiences between first-generation college students, defined as students whose parents had no college experience, and continuing-generation college students, distinguishing between those with no more than one parent with a bachelor’s degree (moderate parental postsecondary education) and those whose parents had both completed bachelor’s degrees or above (high parental postsecondary education). In terms of academics, first-generation college students completed significantly fewer credit hours, took fewer courses in areas such as social sciences and humanities, and had lower grades than others with high

parental educational backgrounds. In addition, they also showed lower levels of extracurricular involvement, athletic participation, volunteer work, and noncourse-related interactions with peers (Pascarella et al., 2004). Supporting these findings, Nuñez and Cuccaro-Alamin (1998) note that first-generation college students are more likely to report low levels of academic integration as measured by attendance at career-related events, meeting with academic advisors, or participating in study groups, as well as to have lower levels of social integration as measured by going places with friends from school and participating in school clubs. Such findings are significant since first-generation college students begin college with lower confidence in their abilities to complete college work (Bui, 2002; Huber & Marks, 2005; Saenz et al., 2007) and may derive “greater outcome benefits from extracurricular involvement and peer interaction than other students” (Pascarella et al., 2004).

Literature on Latino College Students

Hispanic college students, beyond just race and ethnicity, have been found to be different than their White student counterparts. They are more likely to come from low socio-economic backgrounds (Merisotis & McCarthy, 2005; Nuñez & Bowers, 2011), to be first-generation college students (Saenz et al., 2007), and to come from academically disadvantaged backgrounds, exhibited for example through lower SAT scores (Crisp, Nora, & Taggart, 2009; Merisotis & McCarthy, 2007). These factors may limit their familiarity with college options, processes, and norms, thereby affecting where and in what types of programs they choose to enroll. Hispanic students are often more likely to enroll in associates-level or non-degree granting programs that are located close to home (Benitez, 1998), which are often more accessible and more accommodating toward the maintenance of family life and responsibilities.

Such factors may also impact Latino college students' experiences once enrolled in college. Hispanic students are more likely to be concerned with financial issues while in college. Related to these concerns, they tend to attend school only part-time (Benitez, 1998; Crisp et al., 2009), to receive higher levels of federal financial aid (Benitez, 1998; Crisp et al., 2009), and to work long hours while enrolled (Longerbeam, Sedlacek, & Alatorre, 2004). These behaviors are significant in light of Crisp and Nora's (2010) findings. In their study on student success among Latino community college students enrolled in developmental education, they found that the likeliness of success, as measured by persistence, transfer to another postsecondary institution, or attainment of a degree, was positively influenced by their enrollment in a full-time course load. On the other hand, success for these students was negatively impacted by the number of hours worked per week. Among other things, these findings suggest that environmental factors may serve to "pull" Hispanic students away from successful persistence, degree attainment, or transfer (Crisp & Nora, 2010).

Though the pull factor of work may negatively impact Latino students' college adjustment and academic achievement, the literature suggests that various types of social support networks can play important parts in helping Hispanic students to feel that they belong within college. Looking at the experiences of students of color, Nora and Cabrera (1996) found that academic and social involvement and engagement were predictive of stronger senses of belonging and countered the negative influences of perceptions of prejudice and discrimination on campus and in the classroom. The work of both Hurtado and Carter (1997) and of Nuñez (2009) seems to substantiate these findings particularly for Hispanic students. Individual-level interactions, including participation in social-community organizations, community service activities, religious clubs, student government, sports teams, tutoring programs, in-class

discussions, as well as informal, out-of-class discussions with peers and faculty, were all found to contribute to higher senses of belonging for Hispanic students (Hurtado & Carter, 1997; Nuñez, 2009). In addition, an impression that faculty take interest in students' development and a felt sense of obligation to community were also found to positively impact Hispanic students' sense of belonging, even in the face of a hostile campus climate (Nuñez, 2009). Perhaps Hurtado and Carter's most important finding though is that "maintaining family relationships are essential aspects of the transition to college" (Hurtado & Carter, 1997, p. 339), which suggests that a strong 'separation' assumption as held by Tinto (1975) is not a necessary condition for transition and integration in college for Hispanic students. To this idea, Laden (2001) adds that, while the parents of Hispanic students sometimes have limited experience with formal postsecondary education or limited English language skills, they often openly encourage their children's college achievement and aspirations when they are provided access to knowledge of the processes and benefits of college-going. From an institutional perspective then, the literature thus seems to indicate that, to serve Hispanic students, institutions must make sure to create campus environments which allow and perhaps even encourage students to maintain family and community ties throughout their postsecondary studies.

Literature on Latino First-Generation College Students

The literature similarly highlights how, by maintaining family and community connections, Latino first-generation college students can find the strength they need to make it through the educational process, which Gloria and Castellanos (2012) note can be considered both a struggle and a privilege. Although Hispanic students may face some difficulties in balancing academic responsibilities with familial ones (Dayton et al., 2004; Gloria & Castellanos, 2012; Merisotis & McCarthy, 2004), Hispanic first-generation college students also

count on their families as vital sources of support and encouragement (Early, 2010; Gloria & Castellanos, 2012). Early (2010), for example, discusses how Latino first-generation college students who have been recognized for strong writing skills attribute their college success to the attention, resources, and protection they received from their parents as youth. In addition, though they recognize limits to the cultural capital their parents could provide, they do not consider this to be a reason for discouragement. Instead, these Latino first-generation college students look to the work ethic and determination exhibited by their parents as a model of strength (Early, 2010).

On-campus support networks are also key contributors to senses of belonging for Latino first-generation college students. Gloria and Castellanos (2012) note that Latino first-generation college students “formed networks from whom they could gain support, find refuge, and feel viewed and validated as students as Latina/os on campus” (p. 89). Benmayor (2002) adds to this notion through her analysis of the oral histories of Mexican-origin first-generation college students enrolled at the California State University at Monterey Bay. She finds that, to combat sentiments of invisibility on campus, the students in her study have relied on cultural resources of support, including student organizations and affirmative action programs. In fact, for some students, the support received from student organizations and affirmative action programs was so impactful on their comfort and sense of belonging that they were considered as forming on-campus, extended *familias*. Thus, as they firmly planted one foot in college and one foot in their family and home communities, these Mexican-origin first-generation college students often embraced their multipositionality, hoping to become successful students while also serving others as family advocates and community builders (Benmayor, 2002).

Looking at the experiences of first-generation college students of color, Hsiao (1992) suggests that it is also important for students to perceive specific, safe spaces in which they may both seek out and strengthen their connections to on-campus support networks. To this end, Nuñez (2011) proposes Chicano studies courses as providing counterspaces for Hispanic first-generation college students “to create a zone of familiarity in a potentially alienating environment” (p. 651). Whereas these Hispanic first-generation college students might feel out of place and unsure of themselves among their predominantly White and more affluent peers, they are able to build a sense of solidarity with peers, to think critically about their own cultural and familial backgrounds, and to find supportive faculty members through participation in Chicano studies coursework (Nuñez, 2011).

If Chicano studies courses represent counterspaces for Hispanic first-generation college students (Nuñez, 2011), however, this suggests that Hispanic first-generation college students may feel some discomfort or alienation within their larger campus communities. Torres, Reiser, LePeau, Davis, and Ruder’s (2006), for example, indicate that Hispanic first-generation college students may be wary of trusting professional advisors at first. The reasons for this wariness stem from either their failure to see advisors as expert authorities or their fear of looking foolish or feeling uncomfortable with seeking out advisors as authorities for assistance. This being the case, Hispanic first-generation college students first depend on peers and pamphlets for information as they make important academic decisions (Torres et al., 2006). Only if they experience cognitive dissonance as a result of an academic crisis, do these Latino and Latina first-generation college students decide to adjust their information seeking processes and perhaps turn to academic advisors and others for help (Torres et al., 2006). It is problematic, however, that Hispanic first-generation college students, except in the face of academic crisis, might be

reluctant to trust college officials, who could have potentially provided them with accurate academic information in the first place. Thus, it seems that advisors and other institutional actors must make sure to reach out to this population in order to better serve their needs.

College Persistence and Graduation Rates

Currently, the national discourse on higher education is centered on college degree attainment (Santiago, 2011a, 2011b). Unfortunately, since we have found no studies that have closely examined Hispanic first-generation college students' persistence until graduation specifically, we provide a review only of literature on first-generation and Latino college students with regard to this topic.

Literature on First-Generation College Students

Núñez and Cuccaro-Alamin (1998) found that 45 percent of first-generation college students in 1990 had not earned an undergraduate degree or certificate and no longer enrolled four years later. In comparison, 29 percent of non-first-generation students were still enrolled after four years. The authors noted that, for students who were enrolled full-time and began their higher education at four-year institutions, differences existed between first-generation and non-first-generation students with first-generation students less likely to persist in college. Among those students who enrolled full-time at community colleges, Núñez and Cuccaro-Alamin found that the persistence and attainment rates between the two groups were similar. When the authors combined all aspirations (certificate, associate's degree or bachelor's degree), first-generation students were not as likely to persist or to attain a degree as compared to non-first-generation college students (57 percent vs. 73 percent, respectively). The differences between the two groups were constant even after controlling for age, type of institution, and enrollment status. Núñez and Cuccaro-Alamin concluded that first-generation status exerted a unique contribution

on the likelihood of persistence and degree attainment even after taking background and enrollment factors into account.

A few years later, Choy (2001) substantiated Nuñez and Cuccaro-Alamin's (1998) findings on four-year college students. Choy found that beginning first-generation college students at four-year institutions were twice as likely as non-first-generation college students to drop out of college before their second year (23 percent vs. 10 percent). Choy examined a variety of factors that could predict the attrition of both groups and found that, even after accounting for the effects of such factors as delaying enrollment after high school and working full-time while attending college and controlling for financial aid, gender, race/ethnicity, first-generation status was the most significant indicator of student departure at the end of their first year. However, when Choy disaggregated the data by degree aspirations, the findings revealed differences in attainment gaps between first-generation and non-first-generation college students. For students intending to earn a certificate or associate's degree, first-generation students were just as likely as non-first-generation students to persist and to achieve their goal three years after entering college. On the other hand, for those seeking a bachelor's degree, first-generation college students were less likely to remain enrolled (52 percent) than non-first-generation college students (67 percent) three years after entering college (Choy, 2001). This suggests, perhaps, that first-generation college students experienced more difficulty than non-first-generation college students with remaining enrolled in college over time.

More recently, McCarron and Inkelas (2006) have also found gaps to exist between the degree aspirations and degree attainment of first-generation college students. Using longitudinal data from the National Educational Longitudinal Study (NELS:88/2000) in their analyses, they found that over 62 percent of first-generation college students in their sample did not attain their

original degree aspirations from 1990 by 2000. While over 40 percent of first-generation college students aspired to earn a bachelor's degree, only little over 29 percent had actually done so by 2000 (McCarron & Inkelas, 2006). Less than 1 percent of first-generation college students earned a doctoral-level degree by 2000 compared to roughly 12 percent who originally aspired to do so. And, less than 3 percent of first-generation college students earned master's degrees compared to roughly 13 percent who originally aspired to do so. In fact, whereas only approximately 35 percent of all first-generation college students in the sample aspired to less than a bachelor's degree in 1990, more than 67 percent earned less than a bachelor's degree by 2000. For the Hispanic students in the sample, this number was even higher. More than 79 percent of Hispanic first-generation college students earned less than a bachelor's degree by 2000. McCarron and Inkelas propose that these discrepancies between degree aspirations and degree attainment could be indicative of first-generation college students' lack of access to accurate information on college demands and expectations before entering college as well as their lack of adequate support from their college environments once enrolled in college.

Literature on Latino College Students

Despite its tremendous growth over the past decade or its projections of future growth (Ennis et al., 2011), the Hispanic population within the U.S. continues to face barriers to college degree completion. During the 2008-2009 academic year, Hispanics earned only 12.4 percent of the total number of Associate's degrees conferred, 8.1 percent of the total number of Bachelor's degrees, 6.0 percent of the total number of Master's degrees, and 3.8 percent of the total number of doctoral degrees (U.S. Department of Education, 2011). These rates all fall below the percentage of Hispanics in the general U.S. population, 16 percent (Ennis et al., 2011). In 2008,

Hispanic adults over the age of 24 were less likely than Blacks, Whites, or Asian Americans to hold a bachelor's degree (Santiago, 2011b).

Some studies have examined what factors might positively impact the likelihood of graduation for Hispanic college students. Through their analyses of NELS: 88-2000 data, Arbona and Nora (2007) found that, for Latino students who first enrolled in four-year institutions, bachelor's degree attainment within eight years of high school graduation could be predicted by two precollege factors, regarding parental and peer expectations, and five college factors, including continuous, full-time enrollment and better academic performance during the first-year. No environmental pull factors were found to be significant predictors. These findings, particularly those regarding continuous, full-time enrollment, are important since Hispanic students are more likely to attend college part-time (Arbona & Nora, 2007). Laden (2004) considered the possible influence of attendance at a Hispanic Serving Institution (HSI) on degree attainment for Hispanic students. She found that, in 1999, Hispanics consisted of 39.8 percent of all associates degree earners at HSIs versus only 9.1 percent at other institutions, 37 percent of all bachelors degree earners at HSIs versus only 6.1 percent at other institutions, 24 percent of all masters degree earners at HSIs versus only 4.2 percent at other institutions, 21.6 percent of all first professional degree earners at HSIs versus only 4.8 percent at other institutions, and, finally, 15.2 percent of all doctoral degree earners at HSIs versus only 2.9 percent at other institutions (Laden, 2004). While the comparisons of these figures may appear remarkable at first glance, Laden critically questioned whether these outcomes could have simply been the result of higher Hispanic enrollment at HSIs than at non-HSIs. Thus, she pointed to another area for further research.

Promising Practices and Programmatic Interventions

From the previous sections, it may seem clear that Latino and Latina first-generation college students deserve consideration and support if they are to become successful at meeting their college goals. Numerous proposals and programs at the state and local levels have been developed to deal specifically with issues of student persistence and degree attainment. And, through these efforts, several promising practices and programmatic interventions have been identified as successful in serving the needs of first-generation college students, Latino college students, and Latino first-generation college students.

Literature on First-Generation College Students

A review of freshman year programs designed to address the high dropout rates among first-generation students from low income backgrounds by Thayer (2006) revealed that the most common intervention reported by student support services programs that are considered as high-performing is a structured first-year experience. These programs usually include different types of learning communities (Tinto, 1997; Tinto, Goodsell, & Russo, 1993). Thayer describes two learning community models: integrated course clusters and summer mentoring programs. In the former, a specified course (such as math or English) is linked with a course on study skills and tutorials. The courses are taught through a team effort and students receive college-level credit for those courses. A variation of that model was established in 2002 at California State University, Dominguez Hills where a University 101 course was offered that addressed personal, social, and intellectual development to help primarily first-generation students succeed in college. That course evolved into the Toro Program for first-generation, first-year students (Horwedel, 2008). The program involves linking the University 101 course with general education courses such as biology, physics, English or Chicana/o studies and forming cohorts of

students. The intent is to have faculty develop linked assignments between the two courses. Students in the program take part in activities together on campus as part of the program and students who successfully complete the course subsequently serve as liaisons between faculty and students in future University 101 classes. In their roles as student mentors they help to organize and lead study groups.

This mentoring aspect is the cornerstone of the second learning community model. In the second model, students are enrolled in a summer course and are not only encouraged to interact with faculty but are also provided with advisement and counsel from peer mentors and academic advisors. The expectation is that, with mentoring support, students will enter their first full academic year with a sense of confidence. This strategy is grounded in the belief that students will come to know how to get things done before embarking in a college degree. At UCLA, the Academic Advancement Program (AAP) was developed to provide first-generation students with a sense of community and connectedness (Horwedel, 2008; Saenz et al., 2007). The initiative offers tutoring, academic support and peer-to-peer support programs. Proponents of the program note that the mentoring aspect of AAP is one of its most crucial components.

Literature on Latino College Students

Through their review, Oseguera, Locks, and Vega (2009) reported on promising practices for retaining Hispanic students in higher education. In this effort, the authors catalogued various national-level, regional- and state-level, as well as institutional- and local-level retention programs as exemplars for serving Hispanic students. Though quite diverse in scope, many of these programs have offered similar services and resources, including: financial aid, tutoring and other academic skill building activities, academic and career counseling, and cultural enrichment programming. Oseguera et al. conclude that “even in spite of [many] obstacles, many Latina/o

students do succeeddue in large part to the resiliency of this population but also to the work being done in exemplary programs throughout the country” (p.39).

Through her investigation of 12 two- and four-year Hispanic Serving Institutions (HSIs) that lead the nation in enrolling and graduating Hispanic students, Santiago (2008) additionally uncovered several promising institutional practices for serving Hispanic college students. The 12 HSIs in her study each followed a set of guiding practices that included: creating cultures of evidence, sharing data on Hispanic students with faculty staff and students, using short-term measures of academic progress to guide improvements in curricula instruction and support services, encouraging the sharing of disaggregated data between community colleges and bachelors-granting colleges, using a holistic approach in serving Hispanic students, partnering with other community educational organizations in the community to align educational resources, seeking external sources to develop and to test innovative practices while adding proven practices to institutional budget, and applying lessons learned in improving services to Hispanics to improve services for all students. Through such practices, it appears that these exemplary HSIs are seeking ways to meet the needs their Hispanic students through innovation, transparency, flexibility, adaptability, and commitment. The HSI leaders involved in Santiago’s study note that setting an institutional tone toward service to Hispanics is essential to engaging all constituents in carrying out this work.

Literature on Latino First-Generation College Students

As previously mentioned, there are few studies that examine the impact of programs specifically on Latino and Latina first-generation college students. One exception is the study conducted by Saunders and Serna (2004) that examined the experiences of Latino first-generation college students who were enrolled in four-year institutions and participated in the

Futures Project, an intervention program aimed at “disrupting social reproduction by increasing college access and persistence for underrepresented youth” (p. 146). The goals of the intervention program were to help participants to transition smoothly from high school to college, to feel comfortable accessing and engaging on-campus academic and social support systems, and to sustain college-going identities.

Utilizing interview and observational data as well as a longitudinal database that examines first-generation Latino students’ inclination to rally support around academic, financial, personal, and family issues while embedded within the college milieu, Saunders and Serna identified three types related to participants’ ways of navigating through their college environments. The first type described those behaviors used by Latino first-generation students to reconfigure old and to create new social networks as a way of dealing with college-related issues. The second type described those Hispanic first-generation college students who persisted in their college environment but had not been successful in creating new social networks and relationships and accessing new resources. Rather, they relied extensively on old networks and resources, such as high school contacts from the Futures Project, in confronting college issues. The third and final theme described “all alone” behaviors, where those first-generation college students were unable to maintain old networks or to create new ones that would enable them to successfully navigate their first year in college. Saunders and Serna found that, while the student in their sample who exhibited type three behaviors stopped out of school, the students who had exhibited type one and two behaviors were more academically successful. Yet, though type one students seemed most independently well-equipped to succeed toward degree completion, type two students relied heavily on the support of their old networks from the Futures Project to affirm their college-going identity and persist in school (Saunders & Serna, 2004). This finding

emphasizes the importance of validating support networks (Rendón, 1994), whether old or new, for Latino first generation college students.

This point is further emphasized by Benmayor (2002) in her study to explore claims for cultural citizenship made by Mexican origin first-generation college students enrolled at the California State University at Monterey Bay. These students often recognized affirmative action recruitment programs in which they participated as high school students as continued sources of mentoring as well as financial, emotional, and cultural support in college. Through these programs, the Mexican origin first-generation college students in Benmayor's study gained access to circular networks. Though they personally received support from the affirmative action recruitment programs, they also volunteered to give back, finding further motivation to persist in college as they mentored younger students of similar profiles within the college pipeline (Benmayor, 2002). These studies, which have been echoed more recently by the recommendations of Gloria and Castellanos (2012), suggest that culturally sensitive emotional, social, and informational support is vital to the success of Hispanic first-generation college students. They also emphasize the importance of a P-20 aspect to this support. To these ideas, Santiago (2009) adds that including family involvement in support services can also be an important strategy in meeting the needs of Hispanic first-generation college students.

Conclusions and Suggestions for Further Research

As we can see through this white paper, there is still a relative dearth of literature available which explores the unique experiences of Latino first-generation college students. Still much of what we know about this group of students has been gleaned from studies designed to gain further information regarding first-generation college students or Latino college students more generally. Relatively few studies, especially using quantitative methodologies, have been

conducted with the express purpose of examining Latino first-generation college students' transitions from high school to college, college enrollment and academic adjustment patterns, or participation in programmatic initiatives. And, no studies which we have found seem to examine Latino first-generation college students' persistence through degree completion specifically.

More research must also be carried out to examine areas beyond those that we have explored in this white paper. It seems from our review that Latino first-generation college students have much to gain from a college education (Pascarella et al., 2004) and yet face significant barriers to college access and success (Choy, 2001; Crisp et al., 2009; Merisotis & McCarthy, 2005; Nuñez & Bowers, 2011; Nuñez & Cuccaro-Alamin, 1998; Saenz et al., 2007; Terenzini et al., 1996). Thus, more must be known about the impact of current institutional and governmental policies, such as those related to affirmative action, immigration, ethnic studies, and Title V, on this vulnerable yet potentially powerful group of students.

Related to Title V, for example, it may be helpful to learn more about how attending a HSI influences the college adjustment and persistence of Hispanic first-generation students. In their study at a doctoral degree granted Historically Black College and University (HBCU), Murphy and Hicks (2006) found no differences in expectations regarding course difficulty, academic time commitment, academic performance, and grade point average between students whose parents had no college experience, students whose parents had some college experience but no degree, and students who had at least one parent with a bachelor's degree or higher. As over 84 percent of Murphy and Hicks' sample identified as African American, this suggests perhaps that the HBCU study site provided the kind of support that African American first-generation college students needed to adjust to college successfully and to see their own potential for success. Unlike HBCUs which were established for the purpose of educating African

Americans (Gasman, 2008), HSIs are defined according to Title V by the enrollment of a significant percentage (25 percent or more) of Hispanic undergraduate full-time equivalent students rather than by an explicit mission or commitment to serve Hispanic students (Benitez & DeAro, 2004; Contreras, Malcom, & Bensimon, 2008; Laden, 2001, 2004). While the research on the impact of HSIs on Hispanic student adjustment and outcomes is mixed (Contreras et al., 2008; Crisp et al., 2009; Dayton, Gonzalez-Vazquez, Martinez, & Plum, 2004; Gonzalez, 2004; Hagedorn, Chi, Cepeda, & McLain, 2007; Laden, 2004), it may be important to see whether attendance at an HSI would have any bearing on the success of Hispanic first-generation college students.

Another area for possible research is the pursuit of graduate- and professional-level educational programs and degrees by Hispanic first-generation college students. In our review of the literature, we found only one piece, Leyva (2011), which has examined the experiences specifically of Hispanic first-generation college students in graduate school. Through her qualitative study, Leyva (2011) described her research participants, all Latina first-generation college students who completed the same Masters in Social Work program, as inhabiting a liminal space between the culture of their traditional Latino families and communities and of their schools and professions, which largely reflect White American norms. Other work must be done to learn more about how Hispanic first-generation college students, in different fields including in the areas of science, technology, engineering, and math in particular, manage not only to complete their undergraduate degrees but also to move on to higher level graduate and professional programs successfully.

Finally, in future studies on all of the aforementioned topic areas, more could be done to distinguish between more nuanced differences in the parental educational backgrounds of Latino

college students. As we have recognized in the introduction of this white paper, there are some differences in the ways that researchers have operationalized the term “first-generation college students.” In most studies, however, researchers have distinguished differences between two groups: first-generation college students (whose parents have never attended college or do not have college degrees) and continuing-generation students (who have at least one parent with some college experience or with an undergraduate degree). By using additional categories of parental educational backgrounds in their future work on Hispanic first-generation college students, researchers may be able to provide a more detailed picture of students’ experiences. For example, when Pascarella et al. (2004) grouped students into three categories, including students whose parents did not have college degrees (first-generation), students who had no more than one parent with a bachelor’s degree or higher (moderate parental postsecondary education), and students whose parents both had bachelor’s degrees or higher (high parental postsecondary education), they found similarities between first-generation and moderate parental postsecondary education students and more significant differences between first-generation and high parental postsecondary students. Though Murphy and Hicks (2006) did not find many differences between any of the groups in their study, they also analyzed their data according to three student categories: first-generation students whose parents had no college experience, first-generation students whose parents may have some college experience but no degree, and non-first-generation students who had at least one parent with a bachelor’s degree or higher. Such nuanced categories may help to provide a more fine-grained understanding of the influences of parental education levels on Latino college students.

Research on Hispanic first-generation college students is of utmost importance. According to the latest Census information, the Hispanic population within the U.S. has grown

from 35.3 million to 50.5 million, accounting for more than half of the growth in the total U.S. population over the last ten years (Ennis, et al., 2011). Yet, at all postsecondary levels, Hispanics are earning degrees at rates below parity with their representation in the general U.S. population (U.S. Department of Education, 2011). Since as much as half of all Hispanic students are first-generation college students, more must be done to understand and to serve Hispanic first-generation college students appropriately in order to close these educational gaps for this burgeoning segment of the nation's population and to better the outcomes of the nation as a whole (Santiago, 2011a, 2011b).

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