Promoting Equitable Educational Outcomes for High-Risk College Students: The Roles of Social Capital and Resilience

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Ensuring the success of high-risk college students is important for individuals, universities, and society at large. To ensure degree attainment, educational leaders must identify and understand the factors that contribute to student retention to degree. The purpose of this qualitative research study was to explore the personal and campus related supports described by high-risk students. The research was conducted at a large, public, doctoral intensive university in Southern California that admits freshmen under two different admissions criteria. Eight students admitted in the university's lower admissions cohort were interviewed. The interplay between student resilience and self-efficacy, with engagement and acquisition of social capital were identified as critical factors in student retention and degree attainment.

Almost half of all U.S. college students fail to graduate, even though they satisfy their colleges' admission criteria. Many of these students drop out before their second year of college. A recent ACT (American College Testing Program, Inc.) policy report stated the national retention rate from freshman year to sophomore year is 73.5% for all four-year public colleges (Lotkowski, Robbins, & Noeth, 2004). For Hispanic and African American students, the journey through college toward a degree, successful career, and promising future, is more likely to resemble travel through a sieve than an educational pipeline. Somewhere along the line, the majority of students drop out. The average national graduation rate is 53%, more specifically 67% of White, 47% of Latino, and 46% of African American students nationwide graduate within six years. Independent of the institution's characterization – e.g., selective or open access, predominantly White, historically Black, or Hispanic Serving Institution – educational equity with regards to outcomes is absent; White and Asian students tend to graduate at higher rates than Hispanic and African American students.

When potential students and their parents peruse college websites, pamphlets, and flyers, information related to graduation rates is notably absent. Furthermore, while equity is

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stated as a standard of most accrediting organizations, none require institutions to report statistics related to student ethnic diversity beyond numbers admitted or enrolled (Bensimon, 2004). Although higher education is currently exempt from many of the accountability mandates faced by K-12 educators as to how students from underrepresented groups are fairing, the press for increased transparency in higher education is growing (Spellings, 2006). As demonstrated through the No Child Left Behind Act of 2001, disaggregated accountability data around significant subgroups such as Latino and African American provides important feedback for educational leaders as to educational progress. Because this type of data is not publically available in higher education, the sense of public crisis necessary for action may be lacking (Birnbaum, 1987). This is not to suggest the implementation of NCLB accountability policies in higher education, but to offer that leaders in post-secondary education, must address the ethical and social issues that come with accepting students from underrepresented backgrounds with little attention to progress toward graduation (Ladner, 1966). We, like other scholars, see issues of education, equity, and access as one of the most pressing civil rights issues of the 21st century (Sunderman, Kim, & Orfield, 2005).

Presumably, institutions would not admit students who lack the knowledge and skills required to succeed in collegiate curricula, and yet the data seems to suggest that other variables, such as institutional will and skill and singular admission criteria, are at play with regards to student retention and graduation. Acknowledging and understanding achievement gaps necessarily precedes addressing and closing gaps in degree attainment. The purpose of this study is to explore variables that affect persistence to graduation through the experiences of those "high-risk" students who were able to successfully attain their degrees.

In our review of the literature, we found that the majority of empirical research on degree attainment was based on examining non-degree attainment, representing a gap in the literature. Therefore, in this study we intentionally selected cases of success, building on the work of Srivastva and Cooperrider (1998) and Luthans (2003) who suggest that focusing on success builds systemic capacity for additional success. We posit that the narratives of cases of success will shed light on what it takes to be part of the 50% of students that attain degrees.

Setting

This article is a subset of a larger mixed-methods study. The first phase of the study examined the intra-institutional gaps in six-year degree attainment of 2,499 White, Hispanic, and African American[1] students admitted under two different admissions groups to a large, public four-year institution on the west coast of the United States, using quantitative analysis. The second phase reported in this study, examined the role of student engagement, resilience and social capital as predictors supporting degree attainment for African American, Hispanic and White students who entered in the fall of 2001. Previous studies have suggested that student involvement or engagement in college is an important factor in student retention (Astin 1984, 1993, and Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). However, these studies did not explore how resilience and social capital may additionally support student engagement and provide a more nuanced understanding of the degree attainment for students admitted in the lower admissions group.

The study took place in a large, public doctoral research-intensive university in Southern California and explored factors that supported the graduation of students admitted through a unique admissions policy. A minimum of 20% of the spaces in each incoming freshmen class is reserved for local students who meet the state university system's eligibility criteria, yet fall below the university's much higher admissions criteria for non-local students. High-risk students are typically identified as those who are first-generation students, students from traditionally underserved populations, and those from low socio-economic backgrounds. These students are also overrepresented in the group admitted to the university in the lower admissions cohort. The data from the institution in this study reported the following six-year graduation rates of students who entered in the fall of 2001: White 57.2%, Hispanic 47.9%, and African American 42.8%. By understanding the factors that successful students from the lower admissions cohort identify as supportive to their graduation, institutional leaders may be better prepared to support similar students' persistence to degree attainment. This leads us, therefore, to our primary research questions: 1.) To what degree do factors such as student engagement, resilience and social capital relate to the graduation of "high risk" (defined as

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[1] Note: The terms "White," "Hispanic," and "African American" are utilized by the University to identify students' races/ethnicities. These terms are used throughout this article unless citing another's research.

lower admissions group) university students and 2.) How do these factors influence the graduation rate of "high risk" university students?

We first reviewed the relevant literature in order to better understand potential predictors of degree attainment for students that traditionally have not been successful in higher education. The preliminary review yielded a tripartite integrated model that represents one way to support students to degree attainment. In the next section we present a brief overview of population trends and graduation rates as well as the three key literatures that formed our conceptual framework: resilience, social capital, and student engagement. We conclude the section by noting how the interrelationships of the three theories provide a comprehensive lens for examining student retention and degree attainment.

Theoretical Framework

Inequitable Graduation Rates

The policies, programs, and practices of institutions that influence graduate rates vary across institutions. Although White, African American, and Hispanic students all demonstrate higher graduation rates in those institutions that admit freshmen with higher achievement test scores (thus considered more "selective"). Significant gaps between White students and students from underrepresented groups are evident in institutions that are defined as progressively less "selective." For example, institutions rated in the Carnegie classification as very selective report the graduation rate for Whites as 76.4%, Hispanics 71.2%, and African Americans 60.3%. The largest gaps between Whites and African Americans (20.8%) and Whites and Hispanics (16.5%) were found among moderately selective institutions. Within the moderately selective institutions, the six-year graduation rates were 58.1% for Whites, 41.6% for Hispanics, and 37.3% for African Americans. Minimally selective institutions demonstrated the smallest gap between graduation rates, but also had the lowest six-year graduation rates when compared with other Carnegie classifications. Within the minimally selective institutions, Whites had a six-year graduation rate of 38.6%, followed by African Americans at 28.6%, and Hispanics at 25.7% (Horn, 2006).

Across the United States, there are 772 four-year colleges where African American students comprise at least 5% of the institution's population. In 229 (29.6%) of these institutions, the graduation rate for African American students is less than 30%. In fact, African

American students are about four times more likely to begin their college careers at institutions where at least 70% of Black students fail to graduate than they are to attend institutions where at least 70% of Black students succeed (Carey, 2004, 2005). These are staggering odds for African American students. The graduation rates for Hispanic students are equally dismal, even at Hispanic Serving Institutions (HSIs). A search of Hispanic graduation rates at HSIs reveal six-year graduation rates between 9.6% and 73.3% (Hispanic Student six-year Graduation Rates at HSIs, 2007).

The failure to retain Hispanic and African American students will continue to have profound negative effects as demographics continue to shift, both in California and throughout the United States. According to the National Center for Educational Statistics, enrollment in degree granting post-secondary institutions will increase by 15% between 2000 and 2012 (Gerald & Hussar, 2002). Enrollment in public, four-year institutions is expected to increase by 19% during the same period. In addition, the demographics reflect an increasing shift in ethnic representation. In a December 2003 report, the Western Interstate Commission for Higher Education (WICHE) acknowledged a dramatic shift in the ethnic population in the country in general, and in California specifically. In 2001-2002, 56.4% of the high school graduates in California were non-White. In 2013-2014, however, "minority" students will comprise 67% of the number of high school graduates (Blanco, 2003). As this demographic shift continues, public institutions within California must ensure their preparedness for the changing student population and be ready to demonstrate equitable degree attainment – a feat yet to be obtained in this state.

Public institutions serve a distinct purpose within our society. According to the American Association of State Colleges and Universities (AASCU) (2006), which represents 400 public universities across the country:

> [Members of this body] work to extend higher education to all citizens. Access is a hallmark of AASCU institutions, colleges and universities that embrace students who traditionally have been underrepresented in higher education as well as those who are first-generation college students. By *Delivering America's Promise*, these institutions fulfill the expectations of a public university by working for the public good through education and engagement, thereby improving the lives of people in their community, their region and their state.

The tension for higher education institutions between fulfilling a public purpose and achieving national recognition and prestige as a selective institution is increasing. External demands by

public officials to maintain the original purpose of institutions are often in direct opposition to internal pressures from administrators and faculty striving for prestigious rankings among their peer institutions (Burke, 2006). This push for prestige often results in stricter admissions criteria as a way to control enrollment, which may ultimately limit access to these public institutions. Therefore, as a way to balance this tension and provide for both the public good and a high quality education, universities would benefit by better understanding the predictors of student success. Our review of relevant literature resulted in a proposed framework that may provide more predictive power regarding degree attainment of students, particularly those who may be deemed "high risk." We first present a general overview of the literature on resilience, social capital, and student engagement to provide the foundational understanding of these literatures and their relationship with student degree attainment. We then offer an integrated model on how the synergies in these literatures may be brought to bear in understanding our findings as well as suggesting an approach to supporting degree acquisition.

Resilience

Resilience is a relatively new term in psychology and is a burgeoning field for research related to college students. Resilience most commonly refers to the maintenance of positive adaptation by individuals despite experiences of significant adversity (Brown, Benard & D'Emidio-Caston, 2000; Luthar, Cicchetti & Becker, 2000). Resilience according to Richardson (2002) is a driving force that allows a person to progress despite adversity and disruptions. A recent study by Fassig (2004) found that resilience was a better predictor of the adjustment to college than high school grade point average, SAT, and level of life stress. Banyard and Cantor (2004) determined that first-year students who demonstrated a high level of resiliency were more likely to adapt to the college environment than their less resilient peers. The more resilient students also believed that difficult experiences provided opportunities to learn (Banyard & Cantor, 2004). The research on resilience, while only recently applied to college students, offers promise in understanding the likelihood for degree attainment. While resilience can be conceptualized as an internal factor related to the individual, we argue that the social ties between individuals and the social network in which they interact may also be an additional element in understanding degree attainment. The idea of accessing and leveraging the resources of others through social ties is commonly referred to as social capital (Lin, 2001).

Social Capital

A number of theorists have written on social capital, each foregrounding a different aspect of the concept and offering nuanced understandings of the idea (see, for example, Bourdieu, 1986; Burt, 1992; Coleman, 1988; Lin, 2001; Putnam, 1993). Lin (2001) notes that the common denominator between all major theorists includes the understanding that social capital consists of the "resources embedded in social relations and social structure which can be mobilized when an actor wishes to increase the likelihood of success in purposive action" (p. 24). Social capital is therefore an investment in the social relations in a system through which the resources of other individuals can be accessed, borrowed, or leveraged.

Social capital can be conceptualized as the resources embedded in social systems, accessed and used by actors for action (Lin, 2001). Social capital is therefore concerned with the resources that exist in social relations between individuals as opposed to the resources of a specific individual. This implies that actors must be aware of the assets in their network and take action through social ties to access these resources (Portes & Sensenbrenner, 1993). It is the quality of those ties between individuals in a social system that moves resources and creates a structure that ultimately determines opportunities for social capital (Walpole, 2003).

The value of the resource (in this case, a network of support that facilitates students' persistence to graduation) is therefore dependent on social structure and organizations. Moreover, trust between members in the network has also been identified as important to the transfer of resources especially in the education of youth (Coleman, 1988). For this reason, to build the social capital of students in the university, purposeful action that results in a web of support between and among peers, faculty, administrators and others in the environment is critical. The development of social capital can be enhanced through academic involvement and engagement in the university experience (Astin, 1984, 1993; Kuh et al. 2005). Beyond the university, the balance of the social capital research suggests that the presence of supportive connections between and among students, families, and with larger institutional structures will result in higher degree attainment. Equally important in our integrated model are the structures and support offered by the student engagement literature.

Student Engagement

Astin's studies (1984, 1993) postulated that the greater the student's involvement (particularly academic involvement, involvement with faculty and, most importantly, involvement with the peer group), the greater the learning and personal development he or she would exhibit. Similarly, Kuh, Kinzie, Schuh, Whitt & Associates (2005), examined conditions at universities that contribute to student success, primarily in terms of engagement. Engagement, the manner in which students are involved in their university experiences, was found to be a better predictor of retention than school location or student demographics. While these previous studies described growth and learning, they did not carefully examine the sociological effects of involvement on student retention and persistence toward a degree. In other words, previous studies suggested that engagement was important; however the relationship between engagement and social capital has been understudied.

Weaving together these theoretical frames suggested a new framework through which to better understand how traditionally underrepresented and other high-risk students are able to successfully attain degrees. The model (see Figure 1) integrates the internal factors of resilience, the interactive and relational aspects of social capital, and the institutional structures of student engagement to form a scaffold of support toward degree attainment. We test this model in our study.

Figure 1
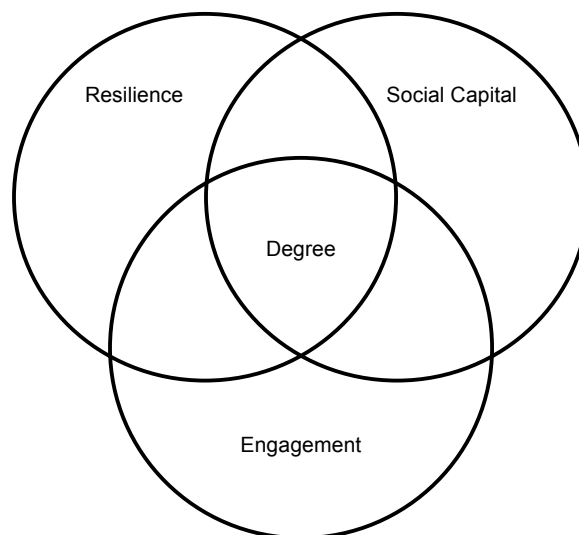
Methods

Data Collection

In order to test our model, we began with the population of the entering lower admissions cohort for the freshman class of 2001 who were approved to graduate during the spring of 2007 (six-year graduation) from a large, public, doctoral research-intensive university in Southern California. Of the 57 students who met these entrance and graduation criteria, eight agreed to participate in an in depth interview. Participants included two African American students (one male, one female), four Hispanic students (three male, one female) and two White students (one male, one female). Although we solicited all 57 seven students, a large sample, through an email invitation, we purposefully kept our interview numbers small to allow us to conduct individual interviews with each participant to test this exploratory model. These participants were selected to ensure representation of all three ethnicities in the study. Furthermore, while African American females (46.3%) and males (46.5%) graduated in six years at nearly the same rates, there was a distinct gap between the graduation rates of Hispanic females (57.3%) and males (48.9%); therefore, the success of Hispanic males was of particular interest.

Protocol Development

We developed a semi-structured interview guide (Patton, 1990; Spradley, 1980) to ascertain students' perceptions of personal and university factors that contributed to their successes, interpreted as retention and degree attainment. We took an appreciative inquiry approach in our work. Appreciative inquiry provided the lens for exploration of the participants' successful college experiences. Cooperrider and Srivastva (1987) describe appreciative inquiry as a mode of action research that:

> engenders a reverence for life that draws the researcher to inquire beyond superficial appearances to deeper levels of the life generating essentials and potentials of social existence. That is, the action researcher is drawn to affirm, and thereby illuminate the factors and forces involved in organizing that serve to nourish the human spirit. (p. 131)

The protocol explored the attributes students believed most significantly affected their success, including adjustment to the campus, social and academic integration (Tinto, 1993), student involvement and engagement (Astin, 1984, 1993; Kuh, Kinzie, Schuh, Whitt & Associates,

2005; Kuh et al., 2005), interactions with peers (Bean, 1985; Kuh et al., 2005), and interactions with faculty (Pascarella, 1985). Each participant was asked the same series of open-ended questions, with probes when required, and was invited back for additional interviews as necessary.

Data Analysis

The interview data was audio-recorded and transcribed verbatim. The first cut of the interview data was an inductive analysis that allowed important themes to emerge "out of the data rather than being imposed on them prior to data collection and analysis" (Patton, 1990, p. 390). We analyzed the qualitative data using a constant comparative analysis method (Boeije, 2002; Glaser & Strauss, 1967) through checking and rechecking emerging themes (Miles & Huberman, 1994). This process of constant comparison "stimulates thought that leads to both descriptive and explanatory categories" (Lincoln & Guba, 1985, p. 341) to provide a deeper more nuanced understanding of the data. In order to ensure the trustworthiness of interpretations, member-checking procedures were carried out as emerging themes developed, and these themes were shared with participants (Miles & Huberman, 1994). Major themes from the study were around three key areas: 1) student personal and campus support which included the importance of parental support, engagement, and advisement; 2) student personal characteristics, which focused on determination and resilience; and 3) alignment of passions and abilities, concerned with the match between passion and skills related to a major field of study. We regrouped grouped responses and compared the different perspectives of participants in the study. We looked for themes that arose from this analysis and then reexamined the data looking for patterns across respondents. These themes were then checked by outside reviewers in student affairs.

Analytic triangulation increased the credibility of the analysis. Three other professionals within the field of student affairs independently reviewed the coding schemata and compared their findings with the researcher. According to Patton (1990), "Triangulating observers ...helps reduce the potential bias that comes from a single person doing all the data collection and provides means of more directly assessing the reliability and validity of the data obtained" (p. 468). Similarly, Miles and Huberman, (1994) and Creswell (2003) offer this form of peer debriefing and suggest that member checking can enhance the accuracy of the findings.

Themes and patterns that emerged were examined through the tripartite model of resilience, social capital, and student engagement.

Findings

In this section we discuss the key themes that came from the analysis. We found support for our original model drawing on social capital, resilience, and engagement; however a fourth theme, not previously considered (self-efficacy) also emerged. In addition, new relationships between self-efficacy and resilience and between engagement and social capital emerged from the data. The interplay of these relationships appears to hold great significance in students' abilities to remain at the university through degree attainment. Furthermore, the quantitative results of our larger study support the findings of the qualitative study in several aspects.

The Relationship between Resilience and Self-Efficacy

Self-efficacy is described as a "performance-based measure of perceived capability" that "differs conceptually and psychometrically from related motivational constructs, such as outcome expectations, self-concept, or locus of control" (Zimmerman, 2000). Social cognitive theory posits a triadic reciprocal causation model of human agency resulting from the bidirectional interaction between personal factors, behavior, and the environment (Bandura 1997). Hence, by utilizing one's personal factors, an individual can influence the environmental outcomes of his or her own behavior. In essence, this theory suggests how individuals may exercise a level of control over their futures (Goddard & Skrla, 2006). Self-efficacy contributes significantly to the social cognitive theory model of human agency (Bandura, 1997). As defined by Bandura (1997), self-efficacy is the "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p.3).

Bandura (1977) first initiated the concept of self-efficacy to explain how personal motivation and expectations can affect outcomes. Pajares (1996) explains that "efficacy beliefs help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will prove in the face of adverse situations" (p. 544). This relationship between efficacy and resilience, as described by Pajares,

surfaced as a major theme in the data. Students' resilience, or abilities to rebound from adverse situations, in combination with their self-efficacy, or their belief that they could do what was required of them, was common among all of these students.

Another finding was the resiliency demonstrated by all students. These students overcame obstacles in persistence toward degree attainment, including loss of loved ones, academic struggles, depression, loss of significant relationships, etc. While adversities such as these often derail a student's academic progress for a period of time, students who possess or demonstrate resilience use these incidents to move themselves toward their aspirations. We often saw the themes of resilience and self-efficacy intertwined. Troy, a Hispanic male about to graduate from the lower admissions group recalled:

> Within that [semester] that I did get [academically] disqualified, I actually had a relationship with a girlfriend of mine that ended on really, really bad terms for me and I was in a depressed state I think for about a year....You know, I guess you have to take every situation with a positive outlook and just kind of keep fighting for your goals.

Rain, an African American female, from the lower admissions group who was preparing for her upcoming graduation also experienced the loss of her fiancé through a violent incident and mentioned how she was able to take this tragedy and positively allow it to influence the direction of her studies. Rain shared that her fiancé's violent death was an influence on her last two years of undergraduate work:

> I started doing research. I wanted to do research in violence prevention. I think he helped me a lot. His memory helped me a lot....I knew I wanted to graduate from college, but it was him, it was his situation that pretty much said, okay. When I get my Ph.D., this is what I want to do.

The students were internally motivated to do well, to graduate, and to "be somebody." Several of the students mentioned the significance of their efforts in making both their teachers and parents proud. Others mentioned the neighborhoods and high school cultures they left behind in pursuit of a college degree. Some felt challenged by peers about their desire to attain a higher education, yet they demonstrated the belief that they have what it takes to achieve this goal. For example, Yessenia, a Hispanic female and another student about to graduate who entered the university in the lower admissions group shared comments about overcoming the pressures of her high school friends. Yessenia stated,

I want to be somebody, like because unfortunately the majority of the Latinos don't really proceed into college, you know. They always just graduate from high school. Like for instance, most of my friends, they just give up. They're like, college is not for me. They just say I'm going to go and get a job. But I'm not going to do that. That's not me, you know. I just want to be somebody. I want to be a professional, not just work at McDonalds or Target, or Wal-Mart or something. I want to do something on my own. I didn't want to be in the footsteps of everybody else. I want to go somewhere else, not just follow everyone because we're Latino. You know, like Latinos don't go to college. But WE DO [caps added] go to college and become somebody else. I'm not just going to stand back and let someone else become something....And even though I went to a [high] school that was not very high privilege, I guess, there were a lot of kids, disturbed kids, and I was still able to push myself up, you know.

The theme of resilience seems to support previous research by Bean and Eaton (2001, 2002). Their student retention model was grounded in the psychological processes central to student academic and social integration, and it called for institutions to develop and offer a variety of programs such as university seminar courses to integrate students socially and academically into the collegiate environment. This involvement within the larger university supported the building of networks and the ultimate success of the students. Bean and Eaton's model stemmed from four specific psychological theories, including self-efficacy theory, attitude-behavior theory, coping behavioral theory, and attribution theory. Self-efficacy theory, or how confident the student is that he/she can succeed academically, was found to be the most important.

Self-efficacy theory may also overlap with resiliency in that they both are centered on the resources that an individual brings to his or her success. These findings also support early research by Allen (1999), who found that students' desires to finish college affected their persistence to degree, particularly for minority students. Intentionally building resiliency and strengthening networks with mentors, advisors, and faculty may enable students to overcome a lack of familiarity with navigating campus bureaucracy, including requirements, processes, and procedures necessary to attain a degree. This intentional strengthening of networks is especially important when little guidance related to navigating the structures and bureaucracies of the university is available from students' familial support systems. The idea of support networks is directly related to the development of a student's social capital.

The Relationship Between Social Capital and Student Engagement

The importance of student engagement is not new in retention literature. What is new, however, is an exploration of how student engagement results in social capital and therefore enhances student retention and increases the likelihood of degree attainment. This study suggests that the presence of social capital contributed to the participants' persistence toward degree attainment. The idea of social capital has been increasingly used in education and has been connected to a variety of positive outcomes such as educational attainment (Dyk & Wilson, 1999), educational aspirations as tied to institutional agents (Stanton-Salazar & Dornbusch, 1995), and home-school connections (Horvat, Weininger & Laureau, 2003). However, while the effects of social capital are generally in the direction of positive educational outcomes, researchers have suggested that additional empirical studies are necessary, given the variation in both definition and outcome (Dika & Singh, 2002). Results of this study suggest that students accessed and relied on social networks, within their cultural groups and across the campus with faculty and advisors, in their pursuits of their degrees.

Students' social networks developed through their ties with others at the university and included formal on-campus work settings, participation in student organizations, relationships with faculty and advisors, and involvement in research projects. The notion of increasing social capital through relationships that allow for vulnerability and risk taking in a safe and trusting environment (Coleman, 1988) was present in all of the cases. Universities need to consider the fact that for traditionally underrepresented students, engagement in the university to any extent may be perceived as risky because public institutions have a history of marginalizing or failing underserved youth. Therefore, one obvious connection point may be with peers. However, research on underserved students in higher education suggests that those students spend less time than their peers in student organizations (Walpole, 2003). This finding is of concern due to the established importance of peer involvement in student development and persistence to degree (Astin, 1984, 1993b; Pascarella & Terenzini, 1991; Tinto, 1987, 1993). Moreover, this difficulty is compounded, as a lack of involvement with peers has been associated with lower levels of acquired cultural and social capital, this creating a negative multiplicative affect on underserved students. Universities, therefore, should strive to reduce barriers, whether perceived or real, to support the engagement of *all* students both within the university, as well as between peers.

The engagement of underrepresented students with other students, faculty, advisors, and others resulted in the acquisition of social capital and was often identified as a key element in success. Two students who entered the university in the lower admissions group and were about to graduate shared specific examples. After being academically dismissed from the university, Troy, a Hispanic male, went to his counselor. His counselor advised him to plea his case with his professors and explain the challenges he faced in the semester and how his ability to stay at the university rested with the grades he attained this semester; he was on the brink of failing out despite his desire to continue his education. Not being familiar with the system, he did not realize this was a possibility as he believed that once grades were issued they were final. After receiving this advice, Troy shared, "I spoke to all my professors from the previous semester and I got all but one of them to change my grades and, you know, I was allowed to continue." Ultimately, Troy's ability to overcome his dismissal was an incredible success, enabling him to continue on to graduate.

Rain, an African American female, also mentioned how the assistance of a supportive counselor lead to her involvement in programs and the acquisition of skills she never would have obtained: "My counselors pushed me to join different things and to gain leadership skills through those programs." She added, "So they were pretty much there to guide me to where I needed to go." It was through these relationships that students learned how to navigate the bureaucracy of the campus in their favor and connect to existing resources. Both Troy and Rain developed a relationship with their counselors whereby they could share their personal struggles, be vulnerable, and build a trusting relationship. The respect and advice provided to both Troy and Rain by these counselors was particularly effective as student and advisor were connected through an intentional trusting web of support.

Several students noted they had developed close relationships with one or more faculty members. They mentioned how professors mentored, challenged, and supported them. Specifically, Mike, a White student, mentioned that his major required him to bridge his academic experience with hands-on work. The professors were there to observe the work and motivate him. Mike stated that the professors in his major "provided a lot of support and, you know, positive reinforcement for what I was doing and they were really the ones who set me on the path, got me interested, got me motivated."

The participants explained how their professors not only supported their acquisition of knowledge and application of this new knowledge to real life settings; they also supported the students during their personal struggles. Rain stated:

> She took me in and taught me everything I needed to know about research, and I wouldn't know anything about going on [to graduate school] without her...Dr. C. found me a job at the time when my fiancé passed away. I had a job, but it was a little too stressful for me at the time, and she had connections everywhere. She told me to join a summer internship program. Just things I wouldn't have known as a normal undergraduate student.

Rain's comments provide insight into how connections with faculty members can provide students with the resources defined as social capital. Others mentioned how through their on-campus employment they learned the "ins and outs" of the campus and met people who could make decisions to support them. Participants noted that they knew a number of students who did not have relationships with decision makers and, therefore, were unable to access the same resources.

Students reported that they gained social capital through their student organizations, particularly culturally based fraternities or sororities. Others increased their social capital through relationships with advisors. Troy, described his rejection by several administrators on campus after being academically disqualified from the university. His resilience and willingness to continue to pursue his dreams was evident when he stated:

> I picture myself as a miner and he has a pickax and he's trying to chip away at this dam. [The dam] is retaining all of the positive things that he wants in life or that he's going for. But that dam is holding it back, you know. And I just see myself as someone who is very persistent with a little pickax, just chipping away at it slowly but surely, and eventually the dam's going to break open and you are going to attain whatever you are fighting for, whatever you're striving for.

Troy's resilience encouraged him to seek assistance on campus after failing out. Instead of accepting failure, he turned to his academic advisor. Troy stated:

> She told me, "Well, let's try to talk to your professors to see if they can give you a break here and there." Through that, I spoke to all my professors from the previous semester and I got all but one of them to change my grades and, you know, I was allowed to continue here at [this school]. She was very, very, helpful.

These social networks developed as a result of students' engagement with the university community. Students mentioned their fears of talking to faculty and their disinterest in pledging fraternities or joining research projects early in their academic careers. This is not uncommon

for first-generation college students or underserved students who are unfamiliar with the benefits of engaging in the campus life in these ways, or who see these opportunities as requiring an investment or risk. Ultimately, the students' resilience supported their abilities to take risks in order to get engaged in campus life. By taking these risks and developing social networks or safety nets, students built on existing internal resilience and acquired social capital within the university community to persevere. This capital resulted in significant opportunities for the students to access organizational resources including re-entry into college after academic dismissal, internships, pursuit of graduate educations, and research opportunities. Adding to their bank of social capital appears to have enabled this group of students to attain success through degree attainment.

Interestingly, in terms of statistical predictors from the quantitative portion of the study, demographics including ethnicity, gender, parents' education levels, and family income were not identified as significant predictors of graduation of the lower admissions cohort. However, what was a statistically significant predictor of graduation for high-risk students was enrollment in a University seminar course during the first semester. This course introduces students to various campus resources and covers student success tools, such as time management. In fact, Hispanic students from the local area, or lower admissions criteria group, were more than twice as likely to graduate if they had enrolled in a University seminar course. The significance of the University seminar course provides support for the idea of social capital being critical in degree attainment. The University seminar course provides students a small group environment (12-15 students) with a casual, ongoing interaction between peers and a faculty member. The seminar also introduces students to a variety of resources on campus that they may not otherwise find, and it encourages the development of academic success skills including the aforementioned time management, note taking, meeting with professors, and engaging in campus life.

The relationships between resilience and self-efficacy, between engagement and social capital, and the interplay between these core factors appear to contribute significantly to student retention and degree attainment. The significance of these findings leads to a consideration as to how universities can intentionally and positively support the development of this model, rather than letting it occur by chance or placing the sole responsibility for this on students who are unaware of the consequences of their lack of involvement or engagement. This is especially

critical for traditionally underrepresented students whose institutions are at risk of not supporting their success.

Discussion

Previous studies helped us to understand student involvement or engagement in college as an important factor in student retention (Astin 1984, 1993; Kuh, Kinzie, Schuh, Whitt & Associates, 2005). However, these studies did not specifically explore how resilience, self-efficacy, and social capital may support a more nuanced understanding of the degree attainment of students admitted through lower admission criteria, or who may be deemed "high-risk." We propose that it may be the universities that are at "high-risk" of not supporting students, rather than shifting the responsibility entirely to the students who are all too often labeled "high risk." This shift in paradigm implies the necessity for a more active role by the university in supporting all admitted students to success.

Utilizing a strengths-based approach, this study adds to the existing literature by exploring a tripartite model that expands the existing student engagement literature to integrate resilience and social capital. Findings suggest support for the established student engagement literature as well as additional elements such as the interplay between social capital and engagement, and student resilience and self-efficacy. It is the blending of these factors that we believe yields the most potent model of support for these traditionally underserved students who may be attending universities that are at "high-risk" of not supporting them to success. This model (see Figure 2) provides an early attempt at deepening our understanding of degree attainment for traditionally underserved students.

Figure 2: Model of Supportive Elements for Traditionally Underrepresented Students
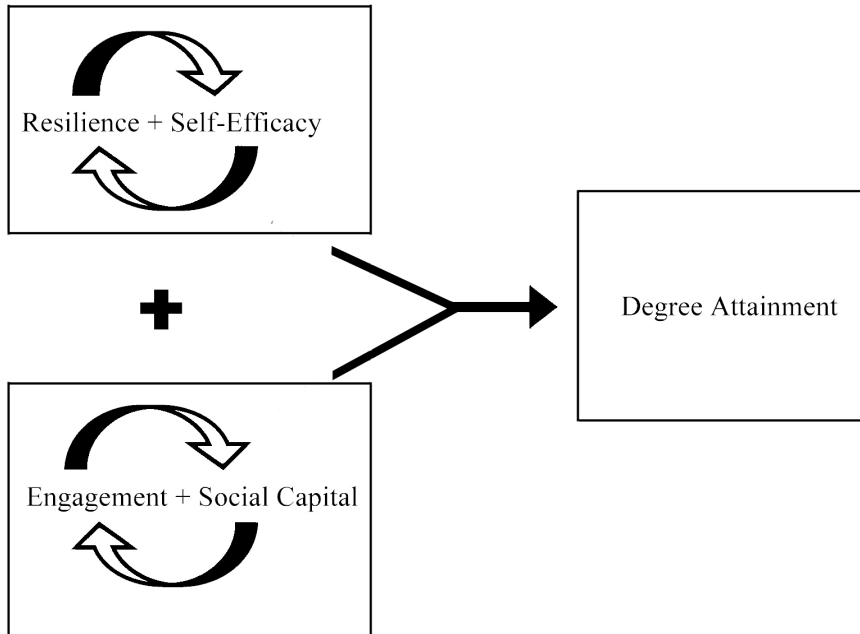
Students' resilience and their self-efficacy, as well as the densely connected webs of interaction both on and off campus resulting in social capital, provide an increased likelihood for degree attainment. These findings suggest a broader perspective and a more specifically focused approach for leaders of universities who are interested in transforming their institutions from "high risk" for not supporting traditionally underserved students to systems that build on resilience, support efficacy, develop social capital, and fully engage students in an effort to attain their degrees. The following section discusses brief implications based on our results, which indicate specific ways in which universities may apply the model.

Teaching resilience and social networking as proactive tools to achieve equitable degree attainment

The potential of resilience is not fully understood in higher education but demonstrates great promise in the area of student retention and persistence. Exploring the possibility of creating structures and opportunities for building undergraduate resilience seems an important

step in developing tools for student success. Students interviewed in the study indicated the presence of a positive home environment with supportive parents that provided clear structure and high expectations. This finding indicates that we may be able to support the resilience of college students and an increase in their self-efficacy by providing clear structure, high, supported expectations, and opportunities to build efficacy. Bandura (1997) suggests that efficacy can be built through experiences such as providing multiple opportunities for academic success, including freshman seminar courses. In addition, providing vicarious experiences, seeing others similar to oneself being successful, is also critical. Universities may provide opportunities for groups of students from similar backgrounds and experiences to interact and form both mentorship and network bonds to support their success. Lastly, social persuasion has also been demonstrated to build self-efficacy. Student organizations, particularly culturally-based Greek organizations, often encourage and support their members' academic success. Providing opportunities for students to be reminded that they possess the capabilities to master given activities is likely to mobilize greater effort and sustain it, as opposed to what occurs when students do not receive any messages from the environment. Universities should not presume that incoming students possess resilience and self-efficacy. Rather, they should be proactive in helping to build on and develop these characteristics throughout the entire student body.

Two studies reinforce the potential of an intentional focus in this area. Fabis (2005) found that students who participated in a personal resiliency training class had a significantly lower state of anxiety than a comparison group. Additionally, a study of a program titled "Bounce Back" at San Diego State University demonstrated positive results. Using two theories, positive psychology and resilience, students on academic probation learned about their strengths and developed strategies to address their personal struggles. This program demonstrates significant potential as the students who participate in it are much more likely to be off of academic probation the next semester than those who do not participate. ("Bounce back helps get students back on track", 2005).

Universities may also examine if institutional barriers result in a lack of engagement among certain groups of students. It is through this double loop process of investigation and inquiry that universities perhaps will be able to make truly informed decisions (Argyris, 1990). Institutions bear responsibilities for the current inequitable outcomes of their students and must also bear the responsibility of correcting this pervasive problem. Providing access without

support perpetuates the inequities in the system and continues to deny underserved students. The early departure of students from low socioeconomic backgrounds creates additional concerns. Although socioeconomic status itself was not a predictor of the graduation rate of students in the lower admissions cohort, the relationship between socioeconomic status and cultural and social capital cannot be ignored. Furthermore, the burden of repaying student loans, compounded with lower earning potential compared to those who graduate, results in increased debt-to-income ratios and continues the cycle of poverty. The loans these students procure in an attempt to advance may actually worsen their financial situation if they do not attain a degree. Important to this conversation is the fact that Blacks (27.7%) and Hispanics (21. 9%) are more than twice as likely as Whites (10.8%) to be living in poverty (US Census Bureau, 2004). We believe this interrelated set of circumstances is one of the most pressing civil rights issues of the 21st century.

Universities may also consider offering a seminar course to teach all students, particularly underrepresented students, about the importance of developing social networks. Intentional development of these networks may be created through a variety of activities both on and off campus. These requirements may include having students meet with a professor during office hours, join a club or organization, and meet with advisors. Students in the study described these networks as critical to their success. However, the participants also mentioned that they were intimidated to engage in these types of activities early in their collegiate experience. These events required a risk, which was often taken as a result of someone's encouragement. Acquisition of these skills, with an understanding of their importance gained early in their academic endeavors, may influence students' abilities to succeed. Once again, systems must recognize that students do not always come with the skill sets necessary to enable success, and a number of scaffolds must be built to ensure success.

To gain a better understanding of how students develop social networks and fundamentally acquire social capital, additional research is required. Areas for future research include investigation of how student engagement results in the development of a web of support networks. In addition, further research is required to gain a better understanding of how students develop self-efficacy and resilience and to deepen an examination of the retention puzzle. Furthermore, studies exploring the relationship between engagement and the acquisition of social capital may help to explain the path to degree attainment.

Prior to providing our implications, we should first note that there are several limitations to the second phase of this larger study. First, although we had extremely in-depth interviews with each of the participants, our sample was relatively small. This may have introduced some sample bias into our study. Secondly, we did not interview a sample of students from the same lower admissions group who did not attain degrees. They may have provided information about the absence or presence of the factors we claim support persistence to degree. Lastly, we were exploring some new territory in terms of supportive conditions for degree attainment and, therefore, had limited models upon which to draw for both data collection and analysis. However, despite these limitations, the study provides a first attempt at an integrated model of support for "high-risk" students.

The second phase of our study, which was quantitative in nature, echoed the qualitative results. However, while the quantitative results provided some global support for the model, the voices of students bring a sense of direction and potential specific action that may support institutions in ensuring the success for all the students they admit. We believe that universities have a moral obligation to support the "high-risk" students they admit. This study provides additional direction and potential action for fulfilling that moral imperative. It is our hope that other scholars and practitioners will further explore the model as a way to create and sustain learning communities that support *all* students in reaching their academic goals. Moreover, this is a call for all institutions that are "high risk" for not supporting traditionally underrepresented students to degree attainment.

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