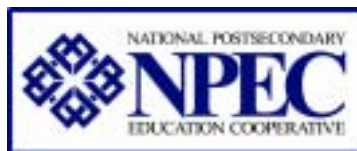


Reconceptualizing Success for Underserved Students in Higher Education

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RECONCEPTUALIZING SUCCESS FOR UNDERSERVED STUDENTS IN HIGHER EDUCATION

How can a member of an underserved group attain academic success in American higher education? In this analysis I (1) describe the characteristics of underserved student populations, (2) discuss the factors that have been identified in the literature as having an influence on the success of underserved students, (3) critique five National Postsecondary Education Cooperative (NPEC) commissioned papers on student success, (4) introduce a model to characterize success for underserved students, and (5) provide future directions for theory development and needed research.

Who Are Underserved Students?

New models of student success must address issues related to characterizing the diverse nature of students who are entering higher education today. If anything can be said for sure about higher education students today, it is that they are diverse in multiple ways—gender, race/ethnicity, generational status, class, residential and immigrant status, academic preparation, religion/spirituality, age, language needs, ability and disability, learning style preference and worldview. These students enroll in diverse learning contexts both on and off campus and access courses and programs of studies in multiple ways. Thus, it is impossible that a single “mega model” can account for everything related to the success of such widely diverse students who should not be “megagrouped” (Anderson, 1995; Lee, 2004) into one large group or category of seemingly homogeneous students. Researchers who ignore these complexities are operating with a blind spot about what constitutes the newly emerging American college student. Underserved students may be said to fall into the categories listed below.

First-Generation, Low-Income Students

A great deal of research has been conducted to identify the characteristics of low-income, first-generation students and the issues they deal with as they interact with college and university social and learning environments (Rendón, Garcia, & Person, 2004; Terenzini et al., 1994; Rendón, Jalomo, & Nora, 2000; Zwerling & London, 1992; Rendón, 1998). Low-income students grow up in poverty and usually attend resource-poor schools. Many grow up in environments where nobody they know has attended college. In schools, low expectations are usually set for this class of students. They are normally tracked into a less demanding high school curriculum that does not lead to college. A number

of well known college access programs such as Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), Electronic Network for Latin American Careers and Employment (ENLACE), Project GRAD, Advancement via Individual Determination (AVID), etc. are targeted at first-generation, low-income students.

Many working-class students are students of color (i.e., African American, Latino, Asian, or American Indian/Alaska Native) though a significant number of White students fall into this category. Students of color are often socially defined as “minorities” and may become targets of prejudice, stereotyping, and discrimination regardless of their numerical status (Rendón, Garcia, & Person, 2004). Despite their early schooling and poverty-related experiences, these students should not be viewed as having only deficits. Some of their assets may include resiliency, ability to survive difficult situations, maneuvering multiple realities (e.g., world of work, ghetto, barrio, reservation, gang culture, family and schooling) and negotiating social, political and economic hardships (Rendón, Garcia, & Person, 2004; Jalomo, 1995; Trueba, 2002).

Generation 1.5 Students

Relatively little is known about the success of a class of students generally known as Generation 1.5 students. Immigration has become one of the nation’s most important public policy issues. Generation 1.5 students are the children of immigrants who are foreign-born, partially foreign-educated, and partially U.S. educated. Their dominant language may be either the language of their parents or English (Gulikers, Massey & Swartz; Roberge, 2006). These students, as well as other immigrants and international students, pose challenges in terms of placement in reading and writing courses (Harklau, 2003).

Moreover, Generation 1.5 students have particular ways, which are not well understood by many college faculty and administrators, which they operate and adapt to educational contexts. For example, in the case of Southeast Asians (i.e., Hmong, Cambodian, Laotian, and Vietnamese) many children of these immigrants cannot speak the mother tongue well if at all, compromising the way they interact with their parents and elders. Many also cannot relate well to mainstream America or to an educational system that lacks relevance to them. The result can be an identity crisis, as students are caught in limbo between cultures (SouthEast Asian Campus Learning and Retention, n.d.).

Students Learning Through Electronic Media

Studies assessing student success often ignore students enrolled in distance learning courses in both the nonprofit and for-profit sectors. Some of these courses are offered entirely online, while some employ a blended format with students learning from online material and occasionally meeting in a traditional face-to-face format with the instructor. One must also consider new developments in the way students are accessing learning experiences. Universities such as Stanford, Duke, Brown, and the University of Michigan at Ann Arbor Dental School are distributing course related content via the iTunes Music Store, allowing students to download lectures and other audio content into their iPods (Lederman, D., 2005).

The future of learning appears to be electronic in nature. In a scientific poll of Americans, nationally-recognized pollster Frank Luntz found that, while adults over 50 years of age preferred human interactions with others, younger students now prefer to deal with electronic media. There is no doubt that in the future greater numbers of students will enroll in nontraditional institutions and will have different learning experiences in off-campus, online, and iPod courses. Some of these students may never step foot on a college campus. These developments in the use of electronic media to access learning at different times and in diverse places will make current student success models obsolete in the future.

Students Enrolled in For-profit Institutions

The largest private university in the world, the University of Phoenix (UP), has attained this status in large part by capitalizing on working adults, as opposed to the typical 18- to 24-year-old student. The phenomenal success of UP lies in large part in attracting working adult students who consider themselves either underserved or not served well at all by traditional colleges and universities employing selective admissions criteria, expecting students to attend full time, and employing inflexible course scheduling and course delivery formats. Instead, working adults are attracted to educational programs which are convenient to access at their own pace, flexible to log into, and supportive in nature. At UP, the average age of students is in the mid 30's. This is a relatively affluent student group, with an average household income of \$50,000 to \$60,000. About 40 percent of the UP students are racial and ethnic minorities, and 54 percent are female. About 69 percent are employed full time for 9 years or more (Breneman, n.d.). By early 2008, it is estimated that 10 percent of college students will be enrolled in web-based curricular programs.

Factors Shaping the Success of Underserved Students

To review the five NPEC papers, it is important to provide information on a number of factors associated with success for underserved students. For the purposes of this paper, I will focus primarily on students that have been historically underserved in higher education: first-generation, low-income students, many who are ethnic/racial “minorities.” Much has been written about factors that shape student success, especially precollege academic preparation (Oakes, 2003; Rendón & Hope 1996; Freeman, 1998), attending resource-poor schools (Oakes, 2003), financial problems (Rendón, 1997; Stampen & Cabrera, 1988; Cabrera, Stampen, & Hansen, 1990), and language barriers (Valdes, 1992; Gándara & Moreno, 2002). Below I describe additional experiences that scholars and policymakers should be informed about when working with underserved students.

Cultural and Academic Incongruity

Scholars and policymakers who are interested in the success of underserved students should be conscious of how the college world and the world of middle- and upper-class students are much more congruent—see Figure A-1 in Appendix A. When the worlds are similar, students face few, if any, barriers getting academically and socially integrated into the college world. In contrast, Figure A-2 depicts the incongruity of the college world and the world of underserved students. Not only are the worlds dissimilar, they are disconnected, and students face barriers and transitional problems crossing the academic border. Once underserved students cross into the college world, they often experience cultural incongruity in the form of alienation, marginalization, and possibly even cultural attacks such as stereotyping and discrimination. A key point here is that scholars who use the concepts of academic and social integration as a way to study success should realize that these constructs privilege students who best fit into the mainstream academic culture (Rendón, Jalomo & Nora, 2000).

Academic incongruity occurs when students are unable to fully function in an academic environment where they have few faculty role models, the curriculum is Euro-centered, and the perspectives of students are silenced or marginalized. To deal with cultural and academic incongruity, many students turn to their families and siblings for support if they happen to have attended college themselves. Others form peer groups on campus to maintain their own cultural identities (Longerbeam, Sedlacek & Alatorre, 2004).

Students of color are particularly affected by cultural and academic incongruity. For example, American Indian and Alaska Native students have historically emphasized the need for a

culturally relevant curriculum and pedagogy. Similarly, Wynetta Lee (2004) has noted that African American culture is often counter to the values of the academic culture where students are asked to pursue contradictory thoughts, challenge ideas and authority figures in class, be aggressive in accessing information and/or presenting ideas in class, as well as learn to function in a fiercely competitive environment. Kenneth Gonzales (2000) found that Latino students were marginalized and alienated by three elements of the campus culture, labeling them (a) the social world, (b) the physical world, and (c) the epistemological world. The social world is a system of cultural representations that includes the racial and ethnic makeup of students, staff, and faculty. The physical world is based on cultural representations of architecture, campus topography, sculptures, artwork, and other physical symbols. The third system of representation is the epistemological world that includes knowledge shared on campus (Gonzalez, 2000). It is these systems where hegemonic, predominantly White cultural perspectives maintain entrenched values and traditions and simultaneously marginalize and alienate students who do not “fit” into these representations.

Asian/Pacific American (APA) students can also be negatively affected when the academic and social culture of the institution does not match theirs. APA students, many who are immigrants, often have language deficits and experience cultural conflicts. Some of these conflicts are the result of the students’ Confucian values (respect for parents, care and concern for others, respect for ritual, the proper way of doing things) and they may be challenged by the educational environment and teaching and learning styles advocated in the U.S. Immigrants have to adjust to the active learning style that dominates many U.S. classrooms. Students tend to withhold their questions during the learning process and avoid confrontations with faculty when problems occur. However, these problems may be less problematic for American-born Asians (Yang & Feng, 2004).

Validation, Encouragement, and Support from Significant Others

Scholars focusing on student success usually point to the notion that students must get involved/engaged in institutional life. However, numerous scholars (Rendón, 1994; Nora, 2003; Jalomo, 1995; Terenzini et al., 1994; Woodlief et al., 2003) have pointed to the notion that many low-income, first-generation students benefit from what Rendón (1994) has called validation. Validation and involvement are two different constructs. The notion of involvement leans toward students taking the initiative to get engaged on a campus that offers services and programs for students to get involved. However, validation does not assume students can form connections on their own and asks college faculty and staff to take the initiative in reaching out to students to assist them to learn more about college, believe in themselves as learners, and have a positive college experience. While involvement in college

and getting engaged in institutional life are certainly important activities that can promote retention and student development, underserved students who have experienced invalidation in the past (e.g., being called stupid or lazy; being told “you will never succeed in life”) are not likely to get involved and/or utilize campus services easily.

These students will likely interpret probing questions about their personal lives as an invasion of privacy and will be reluctant to reveal personal problems that might shame the family. Many students will be afraid to ask questions because they do not want to be treated as incompetent. They will not likely ask for help because they do not know enough about college to ask clear questions. How do you ask for something you do not know exists? How do you form a question to ask for help when you do not know what is available to help you meet your needs? Also, it should be noted that in some cultures asking for help could be interpreted as a sign of weakness.

Spirituality

Spirituality is a topic that has only recently appeared in the literature on college students. The concept of spirituality is difficult to operationalize because its meaning can range from something as clearly recognized as religious faith to holistic education focusing on mind, body, and spirit to the search for meaning and purpose in life. Regardless, spirituality is important for American Indians, Alaska Natives, Latinos, African Americans, Asians and other students. Spirituality helps shape their values, gives them inner strength to persist with their goals. Lee (2004) notes that African Americans “identify with myriad religious traditions (e.g., Protestant, Catholic, Muslim) that serve as a source of direction, stability and calm in the midst of chaos. Spirituality, as a foundation of faith in a brighter future, gives students hope in hopeless situations. It provides direction and clarity of purpose that is very much needed in the first-year experience” (p. 99). One of the reasons that African American students find greater success in Historically Black Colleges and Universities (Nettles & Perna, 1997) is that these institutions view the student as a whole person and recognize that they need to address intellectual, spiritual, emotional, and social developmental changes in students (Davis, 1998).

Nora and Anderson (2003) found that Hispanic students who experienced satisfaction with the development of their religious philosophy of life were more likely to persist in postsecondary education. Treatment of others, such as forgiveness, positive attitudes, and trust, influenced Latino undergraduate students to continue in college. Burgis and Rendón (2006) found that students in learning communities where faculty incorporated learning through contemplative practice (e.g., journaling, time for reflection and meditative activities) in addition to developing critical and problem solving skills,

generated both intellectual and social and spiritual learning outcomes. Some of these learning outcomes included self-awareness, sense of connectedness, values clarification, sense of belonging, and discovery of a calling in life.

Teaching and Learning Practices

Having an inclusive, multicultural curriculum and using pedagogical strategies such as learning communities, active learning, and connecting content to students lives or “real work” experiences have been found to make a difference for low-income, first generation students (Rendón, 2000; Woodlief et al., 2003). Scholars and social critics such as bell hooks (1994) and Maxine Greene (1993), as well as Osei-Kofi, Richards, and Smith (2004), have posited the need to transform teaching and learning practices not by adding to them, but by challenging structures that are built on principles of exclusion and epistemic privilege where what counts as knowledge is associated with a dominant few, usually excluding women and different racial groups.

Analysis of NPEC Papers

The information on underserved students discussed above provides a context for the analysis of the five papers commissioned by the National Postsecondary Education Cooperative (NPEC).¹ In this section, I address the following policy question: Can the findings from each paper be used to account for the success of underserved students? To respond to this question, I will focus on each paper, providing a brief synopsis and illuminating the paper’s applicability to underserved student populations in higher education.

Paper: Holland’s Theory and Patterns of College Student Success

Authors: John C. Smart, Kenneth A. Feldman, & Corinna Ethington

The key purpose of this paper is to illustrate the benefits of using John Holland’s person-environment fit theory to advance our knowledge of student success. Holland’s theory is based on a

¹ Braxton, J. M. (in press). *Faculty professional choices in teaching that foster student success*.

Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (in press). *What matters to student success: A review of the literature*.

Perna, L. W., & Thomas, S. L. (in press). *A framework for reducing the college success gap and promoting success for all*.

Smart, J. C., Feldman, K. A., & Ethington, C. A. (in press). *Holland’s theory and patterns of college student success*.

Tinto, V., & Pusser, B. (in press). *Moving from theory to action: Building a model of institutional action for student success*.

relatively simple notion that individuals prefer to be around others who have similar personalities. As such, individuals are more likely to be content with their careers and successful if they are surrounded with other people who have similar values, abilities, and interests.

The choice of a vocation or a college major is an expression of personality and most people can be classified as one of six primary personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. There are six environment types of the same name. Accordingly, greater success can occur with congruence of students and their academic environments. It should be noted here that “academic environment” refers only to major fields and not the entire institutional environment.

Implications for Underserved Students

Holland’s theory has a number of drawbacks that make it inappropriate to account for the success of underserved students. A major problem with the use of this theory is that, while it purports to account for both individual and situational aspects, in my view, it reinforces an individualistic stance that could result in a victim blaming. I agree with the authors that the academic environment should be as important as student experiences in efforts to understand student success. I also agree that the college environment should be given equivalent attention in the research literature, along with the college student component. However, I wish that the authors had gone further than simply identifying student majors as a definition for the academic environment. A true and deeper formulation of the college academic environment would suggest attention to faculty behaviors toward diverse students, campus climate, curriculum, intergroup relations, etc. Defining the academic environment only as a major is a very narrow and limiting perspective that ignores and diminishes the multicultural nature of college students and campuses in contemporary society. Student success should refer to more than just a good match with a major; success should be rooted in a much broader fashion: the extent that the student develops a worldview, appreciates difference, becomes a critical/reflective thinker, etc.

While the authors of this paper do not explicitly lay out the problem of student success, concentrating instead on the potential use of Holland’s theory to account for student success, the paper suggests that individuals (students) could have more success if they chose the “right” major. Consequently, the focus of change is primarily on the student, suggesting that the problem is located within the individual. The direction of the theory toward individuals negates the supposed emphasis on the academic environment, as I would define it, going beyond majors to include everything that constitutes the structures and culture of the institution. Moreover, in this theory, virtually no attention is given to how the institution adapts to students. In fact, everything about the institution is left intact. We

never learn exactly what the institution could do to foster student success and, when students alone are at the core of the responsibility for success, this usually results in a form of victim blaming, which is the outcome of person-based problem definitions where people are to blame for their own predicament.

I agree with Caplan and Nelson (1973) that it is structural inequities within society's institutional structures and not so much personal traits that account for the fact that some students succeed better than others. Alienating situational forces act upon individuals who, given the same opportunities as any other, would do equally well or poorly. As such, I maintain that it is structural inequities within college campuses such as the lack of minority faculty, the use of a primarily monocultural curriculum, invalidating views of underserved students, placement of people of color in limited power positions, etc. that perpetuate lack of success for low-income immigrants and students of color.

A second major problem with the use of Holland's theory with underserved students pertains to the person-environment fit assumption. Here, the issue is congruency, the notion that stability, satisfaction, and achievement are a function of the "fit" or congruence between individuals and their environments. Yet, as I noted earlier, most academic environments are likely to be incongruent for underserved students. How does an underserved, low-income immigrant fit into an institution where the rules have already been established? How does an underserved student of color fit into an institution where the values, traditions, and conventions are in stark opposition to home realities? These critical issues are never engaged in Holland's theory. Moreover, a person-environment fit framework is linked to an acculturation/assimilation framework that is extremely problematic for use with underserved students, especially immigrants and low-income students of color.

Elsewhere (Rendón, Jalomo, & Nora, 2000), I have noted that an acculturation/assimilation framework, which was prevalent during the 1960s when social scientists were concerned with how minority groups became integrated into the dominant society, is analogous to issues of student incorporation into college life. Scholars whose work assumes congruence and assimilation should be keenly aware that assimilation requires a process of separation, a cultural adaptation that requires students who do not "fit" into the dominant culture to essentially give up much of what they hold most dear: language, customs, traditions, values, etc. Moreover, person-environment fit frameworks may result in blaming the victim for lack of success, as the whole notion of fit is based on the fact that the person can become fully incorporated into a new culture.

A third problem is that the use of personality type tends to essentialise students into one category or another. As I noted earlier in this paper, students are becoming more complex in terms of

their interests, worldview, faith, learning preferences, etc., and it is inappropriate to reduce students to bottom-line commonalities, which can result in an essentialised view of students.

Paper: Moving from Theory to Action: Building a Model of Institutional Action for Student Success

Authors: Vincent Tinto and Brian Pusser

This paper is focused on developing a model of institutional and state action for student success. Accordingly, two models are presented; one is a preliminary model of institutional action and the other pertains to a policy formulation process. In the model of institutional success the authors identify five conditions that promote student success: institutional commitment, institutional expectations, support, feedback, and involvement or engagement. The authors note that: “At its core the model argues that student success is most likely to occur when all the above conditions exist. Moreover, it argues, by extension, that institutional policy must be coherently constructed to enable all sectors of the institution to collaboratively construct those conditions for all students on campus” (p. 15). With regard to policy, the authors present a model of policy/student success interaction.

Implications for Underserved Students

The greatest strength of this paper is its attempt to focus on institutional action to promote student success because the majority of scholarship on student success continues to be focused only on the individual. The model of institutional action intentionally includes “general categories” of actions institutions can take to promote student success, as the authors produced a model that they expected could be easily tested and modified by subsequent research. Yet, I would have to say that generalized categories are a shortcoming of the model. For instance, I agree that support, feedback, and involvement are essential to student success, but I believe that the model does not go far enough with regard to underserved students. Because the categories are so general, the lack of specificity could hamper a real understanding of what institutions need to do to promote success. For example, in the area of “institutional commitment and leadership,” what are the specifics of a leadership style that promotes success? What specific kinds of support can deans, department chairs, and vice presidents provide to faculty and staff to enhance student success?

In the area of “expectational climate,” the authors define this as speaking “to the expectations the institution holds for student, faculty and staff behavior” (p. 17). I find this definition quite narrow, and I would argue that the campus climate should also speak to the extent that the college

not only sets high expectations, but also welcomes and embraces diverse students. This would be a campus that affirms diversity, employs a culturally competent and diverse faculty and staff, engages a multicultural curriculum and pedagogy, promotes a validating, engaging campus climate, includes planning and accountability in a diversity action plan that includes goals, strategies, budget, and data about student achievement, institutional climate, faculty and staff hires, etc. There are now numerous reports that have been produced by institutions of higher education, as well as national organizations such as the Association of American Colleges and Universities which identify quite clearly the kinds of efforts that should be in place in an institutional climate that affirms diversity (Garcia, Hudgins, Musil, Nettles, Sedlacek, & Smith, 2002; Musil, Garcia, Hudgins, Smith, Sedlacek & Nettles, 2000). These reports, as well as research on these issues, can be employed to bring specificity to what are portrayed as generalized categories of institutional actions.

In the area of support, I applaud the importance paid to financial aid, advising, and academic and social support. For underserved students, the key here is how these students can be assisted to succeed in an institution that does not reflect who they are and what they represent. No real mention is made of the notion that many underserved students find the academic environment to be incongruent with their realities, and this is a glaring omission in this paper.

Regarding feedback, the emphasis in this paper is on feedback for students, especially at the classroom level through classroom assessment techniques, for example. I think this is important, but so is feedback for the institution. Along these lines, the institution should engage in what I call the “Scholarship of Diversity,” the collection of data on key institutional success indicators such as enrollment and retention rates, student achievement data, graduation and transfer rates, climate studies, faculty and staff hires, Affirmative Action data, financial aid recipients, and so forth.

I think involvement and engagement are also important, but the authors fail to mention information that has been in the literature for some time. The research of Romero Jalomo (1995), Laura Rendón (1994); Patrick Terenzini et al. (1994); and Amaury Nora (2003) clearly indicates that many underserved students simply do not know how to get involved. To truly make a difference for underserved students, institutions need to go beyond merely offering services to students. Underserved students can benefit from the validating experiences I described earlier.

I applaud the authors’ focus on the importance of pedagogies that engage students, such as learning communities and collaborative learning. I also agree that the role of faculty in promoting success is absolutely critical, and that institutions need to train faculty to work with diverse student

populations. Along these lines, I wish the authors had incorporated the notion of a multicultural curriculum and pedagogical approaches that work best with underserved students.

While the authors hope that this model can be tested, my concern is that the researchers will test the model not with the institution as the key unit of analysis, but once again at the individual (student) level. The model begins with student attributes, and the authors note that the model depends on student effort, albeit that the institution is viewed as an enabler of the effort. But what we need is a real model of institutional effort that results in an institution that transforms itself so that more students can succeed. I applaud the intention to make institutions more responsible agents, but much more needs to be done to make this model a true paradigm of institutional action and transformation that responds to the needs of diverse learners.

Paper: A Framework for Reducing the College Success Gap and Promoting Success for All
Authors: Laura W. Perna and Scott L. Thomas

This report presents the results of a multidisciplinary examination (e.g. education, psychology, sociology, and economics) of theories and methods that researchers have used to understand student success. To do so, the authors review articles in “top journals” in each discipline. The report then introduces an overarching framework that policymakers, practitioners, and researchers may use to examine, implement, and evaluate policies and practices for addressing racial/ethnic and socioeconomic status (SES) gaps in student success.

Implications for Underserved Students

The authors reviewed the literature that examined 10 key indicators of student success in four key transitions in what the authors view as a longitudinal process of success. Some indicators are not in the literature because students of color have not been studied in significant ways. Also, the authors are correct that some scholars may have focused on these outcomes because states and the Federal Government request reports on these indicators. When funding and grants focus on these indicators that is what scholars will focus on in their studies.

The authors note that “The definition of student success emphasizes certain outcomes over others. In other words, this definition of student success implies that all students should enroll in college, persist to program or degree completion, enroll in and complete advanced degree programs, and earn high

incomes” (p. 9). I would add that the definition views college-learning far too narrowly, as a traditional, residential institution. What about those students attending online courses or accessing iPods for their learning? The traditional definition of student success is too narrow and needs to be expanded to the experiences of students in postsecondary learning environments today.

The authors limited their review to articles published in “top journals.” I am wondering what would have happened if they had looked beyond these journals, as scholars of color may be publishing their work in other venues. If this report was truly about finding what accounts for the success of racial/ethnic and low-income groups, a broader analysis that incorporates other journals is warranted. The researchers might have examined anthropological journals that theorize about how individuals, such as immigrants, make transitions from one world to another. The *Journal of Educational Policy* published a special issue focusing on California’s Puente Project in 2002. Books and monographs might also have provided direction (Rendón, Garcia, and Person, 2004). The *Journal of College Student Retention*, *Journal of Women in Science and Engineering*, *Latino Studies Journal*, etc. may also have provided useful information, as could doctoral dissertations and reports issued by higher education organizations such as the Association of American Colleges and Universities and the American Council on Education.

I was not surprised that the most common methodological approach to examine student success is quantitative and mostly correlational, such as regression and path analyses and structural equation modeling. I applaud the authors for explaining why qualitative approaches can also be useful. It is interesting that mixed-method approaches were not widely employed. With so many national studies used as the basis for these quantitative studies, I wonder how many researchers have actually ever talked with racial/ethnic students or any student for that matter to get to know their experiences in college. If student success is determined by the “attitudes and behaviors of individual students” (p. 36), why haven’t we asked them what success is for them? Only a few articles in education examined the ways in which student attitudes shape their success. I was also not surprised that the student is the “typical unit of analysis in research examining the ten student success indicators” (p. 27).

I think the authors need to think more deeply about the notion that student success is a longitudinal process. Perhaps students enter, interact with and exit college, but much more is going on that is complex, messy, and nonlongitudinal. Students live in multiple worlds, which may include not only college, but also work, family, barrio, ghetto, or reservation. These worlds have validating and invalidating agents such as parents, peer networks, children, community mentors, and so on that often help to shape the aspirations and motivation of underserved students (Jalomo, 1995; Rendón, Jalomo, & Nora, 2000). Students enter college, but during that time they are also interacting with their other worlds. Student enrollment patterns are complex. Some students are enrolled in more than one institution at once;

others leave and then return. As the authors note, student success processes vary across groups. I agree that multiple theoretical approaches are needed to inform student success and that student success is shaped by multiple levels of context. However, as mentioned earlier, I think the context also needs to include the structural elements of the institution.

Paper: What Matters to Student Success: A Review of the Literature

Authors: George D. Kuh, Jillian Kinzie, Jennifer A. Buckley, Brian K. Bridges, and John C. Hayek

This paper is based on a very extensive literature review that examines the complex array of social, economic, cultural, and educational factors that may account for student success in college. The authors provide a framework for guiding their analysis that portrays the importance of students' precollege experiences, student behaviors and institutional conditions, student engagement, and desired outcomes and post-college indicators of student success. The authors offer seven propositions related to student success, including (1) the importance of precollege academic preparation, (2) the indispensable nature of family and community support, (3) the importance of the right amount and kind of financial resources, (4) the benefits of early and sustained interventions, (5) the importance of students forming meaningful relationships in college, (6) the benefits of a student-centered institutional culture, and (7) the need for assessment and accountability. Finally, recommendations for future research are provided. As such, this report provides very useful and well-organized baseline information about what matters to student success in college with more than usual coverage of underserved student populations.

Implications for Underserved Students

I appreciated the illumination of key findings about student success, and it is clear that the authors went through an analysis of many different kinds of sources to get to their findings. Nonetheless, it would have taken the paper to a higher level if the authors had engaged in theorizing about aspects of the college environment that promote or hinder success for underserved students. For example, the authors note that "The single best predictor of student satisfaction with college is the degree to which they perceive the college environment to be supportive of their academic and social needs" (p. 49). That is likely to be true, but the issue is not simply reporting the finding. The deeper issue of why college environments are supportive for some and not supportive for others is left unexamined. In the future, we need more than a listing of key findings, we need to dig deeper into why some students are served well and others are not. We need to theorize about why this is so. Some theories that could prove useful include critical race theory, feminist theories, and social class theories.

I agree that the pipeline metaphor does not really capture the path to educational attainment. The authors note that “a more accurate representation is a wide path with twists, turns, detours, roundabouts and occasional dead ends” (p. 17). I also agree “no one theoretical perspective is comprehensive enough to account for all the factors that influence student success in college” (p. 25). If there is agreement among scholars that one megamodel is insufficient to capture student success, then researchers should stop trying to fit a study into a model that does not work. Different models are needed for different student and diverse learning environments, and even these are likely to have their shortcomings.

This paper contains more of a focus on race and ethnicity, but there is a need to address Generation 1.5 students and students using electronic technology to access higher learning. I appreciated consideration given to students in the for-profit sector, but clearly more research is needed here, as well.

One of the propositions is that students benefit from early interventions. While I agree, I think that the research on early interventions is quite lacking, with very few early intervention programs having solid evaluations where one could say a program is truly a best practice or evidence-based program.

On p. 59, I appreciated the authors’ attempt to discuss structural and organizational characteristics of institutions. However, I would expand the structural characteristics listed on p. 59 to include those that are related to serving underserved students such as percentage of faculty of color, multicultural curriculum, availability of financial aid, cross-cultural centers, diversity training for faculty and staff, and so on.

On p. 89, I applaud the inclusion of humanitarianism as an outcome category of student success. This is an area that needs more research, but it is clear that policymakers need to think about success in terms of more than just persistence, grades, and test scores. Students are whole, multifaceted human beings with multiple intelligences, as underscored in Howard Gardner’s theory of multiple intelligences (1993). To that end, policymakers need to think about the following: What are the characteristics of an educated student today? How do we get students to not only persist, earn degrees, pass tests and earn good grades, but to be good humanitarians, get along with others, have a sense of purpose, work effectively with diversity, and develop values related to democracy and social justice?

Paper: Faculty Professional Choices in Teaching that Foster Student Success
Author: John M. Braxton

The key objective of this report was to develop a theory of faculty professional choices in teaching role performance that contributes to student success. A key assumption is that teaching is important because faculty are primarily responsible for a great deal of student success. A second purpose was to use the literature on the effects of postsecondary institutions to determine the multiple markers of student success. A third purpose was to list the sources of influence on faculty teaching performance and especially the performance that contributes to success. Finally, the report sought to develop recommendations for policy and practice, especially for state policymakers and key administrators of colleges and universities.

Implications for Underserved Students

A key strength of this paper is the advancement of a very broad definition of student success that encompasses several categories and skill sets configured into eight domains of success. These include the traditional view of success as academic and occupational attainment, but other categories that get less attention include personal development and individual accomplishments. I agree with the author that policymakers and college administrators need to put greater emphasis on faculty professional development, and that institutional policies should require that faculty candidates present a teaching demonstration or pedagogical colloquium as part of their interview process. I also agree that teaching and learning should be rewarded in the promotion and tenure process and that teaching can be a form of scholarship. I applaud the emphasis on teaching and learning as key to student success, though much more research in terms of what constitutes sound pedagogical practice for underserved students is needed.

Nonetheless, this paper does not engage issues of diversity and multiculturalism or the needs of underserved learners in the classroom. I would argue that teaching and learning for the future must take into consideration the complex and diverse nature of students today. In my view, teaching and learning are not neutral dynamics that occur between faculty and students. Scholars concerned with race and gender equity such as hooks (1994), Belenky et al. (1986), and Osei-Kofi et al. (2004) speak to the notions of power imbalance in the classroom, epistemic privilege, and course offerings that preserve the superiority of Western civilization. To advance our understanding of what can truly make a difference for diverse students, we must consider issues such as the following:

- What counts as knowledge and why?

- How can faculty create empowering, holistic, multicultural, and participatory communities of learning in the classroom?
- How can faculty create a multicultural curriculum?
- How does learning occur both in and out of the classroom?
- Is the role of the professor only to be an expert that imparts knowledge?
- What conditions are necessary to help low-income, underserved students learn, especially when their voices have been excluded and or marginalized in the classroom?
- Should only grades drive students to learn?
- What are the unspoken assumptions that faculty make about low-income, underserved student populations?

The following issues also need deeper engagement and further development.

Expand the notion that only course learning matters. Unlike the author, I would not downplay the domains of personal accomplishments and personal development. In my own study of 16 faculty in 2- and 4-year institutions, the majority of whom had received teaching awards and recognitions (Rendón, 2006), one of the interesting findings was that these faculty did not believe that learning content and academic attainment were all that mattered in the classroom. Instead, I found that what could be identified as personal development outcomes such as sociopolitical awareness, curiosity, ability to relate to others, global awareness, socially responsible citizenship, humanitarianism, and self-awareness were identified as equally important, and often more important, than learning subject matter. While the faculty valued intellectual development, they broke away from a narrow focus defining student development primarily using academic indicators. Instead, the faculty included a more holistic approach to their pedagogical practice. This view is reinforced by scholars such as Gardner (1993) who has written that there are multiple forms of intelligence and that it is unfortunate that only logical and mathematical ways of knowing are privileged in educational systems.

Deepen the notion of what constitutes sound pedagogical practice. Braxton relies quite a bit on Chickering and Gamson's (1987) seven principles of good practice for undergraduate education as key to learning. While these principles might be useful as a starting point, in my view teaching and learning is much more complex and requires deeper thinking. These principles, for example, are not fully appropriate for students who are accessing courses primarily through electronic media. Further, these principles do not speak to pedagogical practices that have been shown to be useful when working with low-income students, such as having an inclusive curriculum that includes diverse perspectives,

connecting content to real-life experiences, including contemplative practice in the classroom, connecting theory to action, and so forth. (Rendón, 2002; Woodlief et al., 2003; Rendón & Burgis, 2006). In short, we cannot discuss improving teaching and learning without discussing issues of diversity, multiculturalism, power, privilege, democratic structures, and social justice.

Reconceptualizing Student Success for Underserved Students

In this section I present an Interactive Model of Success for Underserved Students. I also address additional data, information, research, and/or theoretical models which are needed to promote success for underserved populations.

Interactive Model of Success for Underserved Students

The review and analysis of these papers lead me to believe that success for underserved students needs to be reconceptualized. The papers spoke to the notion that existing models had problematic elements to them, and I have also found present models to be lacking in an authentic representation of the experiences of underserved students as they flow in and out of multiple systems. Figure B-1 in Appendix B depicts an Interactive Model of Success for Underserved Students. I pose this model as a way of conceptualizing what underserved students might go through on their way to attaining success. I also posit that the model needs to be modified so that it is context- and student population-specific. With the limitations of the written page, it is not possible to provide a model that has movement to it. I ask the reader to imagine that each gear-type figure represents a world with structures that are in constant motion, touching the other worlds in multiple ways and at multiple times. The student is viewed as moving back and forth among the family, community, and postsecondary educational worlds, engaging with multiple structures and actors and having both positive and negative experiences along the way. Race, class, and gender—as well as the larger system of societal structures of rewards and opportunities that foster equality or inequality—may shape these interactions.

Examples of family structures might include family support and validation, parenting styles (e.g., provide strong direction or little or no direction), family expectations, and family financial resources. Community structures might include faith-based organizations, mentors, role models, peer networks, work opportunities, and quality schooling. Postsecondary educational structures include diverse faculty and staff, diverse student body, multicultural curricula, pedagogy, validating and engaging campus climate, admissions policies, mission, and core values. The student is viewed as a whole human

being with hopes and dreams and with multiple intelligences and ways of knowing, and not simply as an entity which is churned out by an educational system bent on developing specific competencies and proficiencies demanded by an increasingly technological economic system (Greene, 1993). The student has demographic characteristics such as race/ethnicity, SES, gender, immigrant status, language, worldview, religion/spirituality, aspirations, and so forth. The student also has prior life experiences in the K-12 system and in the military and work environments that help shape aspirations and the drive to succeed. Student success is conceptualized in a holistic fashion with an emphasis not only on intellect, but also on social, emotional, and spiritual development. The idea here is not only to break down the notion that only intellectual forms of intelligence matter, but also to bring educators and policymakers to think more deeply about what it means to be an educated person in the world today. In essence, the model is an attempt to reconceptualize the traditional approaches to account for success.

Reconceptualizing Success

To reconceptualize success for underserved students requires dismantling or revising entrenched methodological approaches and theoretical views about underserved students. Below, I illuminate some traditional approaches and perspectives and present a revised conceptualization of each.

Traditional Approach: Researchers may indicate that race, class, and gender affect student success, but they fall short of fully employing these factors as a way to explain success.

- **Revised View:** Because meanings of race, class, and gender so deeply affect social arrangements and social interactions in family, community, and postsecondary systems—as well as society at large—it is imperative that scholars engage in efforts to theorize race, class, and gender and how these constructions might affect policymaking and student success.

Traditional Approach: Researchers might discuss societal structures of rewards and opportunities, but the discourse is not engaged deeply in the analysis.

- **Revised View:** Researchers include an analysis of factors accounting for the historical underrepresentation of specific groups of students, and illuminate social structures of rewards and opportunities that benefit some but not others. These may include access to quality schooling and health care, discrimination towards students of color, perpetuation of poverty, and so on. Simply identifying the factors is not enough. We must push for the transformation of societal structures, and we must interrogate institutional structures, including how they privilege some, while excluding others.

Traditional Approach: If only students would find ways to fit and become socially and academically integrated in college, they would attain success.

- Revised View: Notions of fit, as well as social and academic integration, do not take into account the fact that most postsecondary environments are normally not fully set up for underserved students. Many low-income, first generation students find it problematic to make the transition to college and to get involved in institutional life. As such, institutions need to take the initiative to validate students as capable learners and to embrace them as valuable members of the academic and social learning community. Further, institutions must find ways to transform their belief systems about underserved students and the way they work with these students.

Traditional Approach: Underserved students are constructed as a problem to be solved and overflowing with seemingly insurmountable deficits.

- Revised View: The student is constructed as a whole person. Each student brings strengths as well as deficits, all of which affect student success. For example, prior life experiences such as schooling, validating and invalidating experiences, language development, and support and encouragement from significant others ultimately shape access and success in diverse forms of postsecondary institutions. In essence, the student is a human being moving in and out of different systems (e.g., family, community, postsecondary institutions) and not simply an unnamed entity flowing through a system in a neat, linear fashion. Similarly, demographic characteristics such as race/ethnicity, immigrant status, SES, and gender can also be said to affect how a student accesses college and societal opportunities.

Traditional Approach: Student success is a linear, unidirectional process.

- Revised View: Success is the result of multiple student interactions with different systems and at different times. Student success is not due simply to a longitudinal process of movement from high school to college. Instead, success is contingent upon the extent and quality of interactions with multiple systems. For example, the family may provide encouragement, set high expectations, provide financial support, and validate students. The community may provide mentors, professional opportunities, and faith-based beliefs that help students develop clear and attainable aspirations and a motivation to succeed. Postsecondary institutions may provide structural support such as culturally competent faculty and staff, a multicultural curriculum, cross-cultural centers, race-conscious admissions policies, financial aid, and so on.

Traditional Approach: The student is the only unit of analysis and everything about the institution is left intact.

- Revised View. Once students enter college, it is the structural elements within this system which need to be changed and transformed. Accordingly, the formulation of the “student success problem” is actually a “higher education structural problem” where the primary locus of change is within the institution. A key research question would ask what institutions are doing to foster success for students.

Traditional Approach: Student success is unidimensional, focusing only on intellectual/academic indicators of success.

- Revised View: Student success is multidimensional, focusing on the development of the whole person. Examples of student outcomes include—

Intellectual— GPA, degree attainment, critical thinking skills.

Social—leadership skills, ability to work in diverse settings and with diverse people, ability to appreciate difference.

Emotional—maturity, able to handle conflict with respect and dignity, self confidence.

Spiritual—sense of purpose, ability to see larger meanings of issues, ability to understand how things are connected, faith in something larger than the self.

Traditional Approach: Quantitative methods are the primary way to account for student success.

- Revised View: Most of the research on success has employed a quantitative lens because educational policymakers have fixated on these measures as the only means of providing “hard core” evidence of success. However, exclusively employing quantitative approaches limits the ability to capture and ground the notion of student success in the breadth and depth of student experiences in multiple systems. Moreover, sole use of quantitative research tends to “objectify” students, effectively silencing their voices and precluding a deeper analysis of multiple meanings of success from the students’ own perspective. Qualitative research can provide in-depth information that can be used to identify key experiences that can later be quantified. Mixed method approaches can also be useful in presenting a broad view of student success.

Need for More Data, Information, and Research

To learn more about the success of underserved students, it is important to focus on the following:

Conduct an extensive literature review of research on underserved students with a particular focus on the research that has been published by scholars of color.

To learn more about student success, we must look for answers in the right places. We need to examine articles, documents, and artifacts that push our thinking in the detailed ways that race, class, and gender interact to affect access to college and ultimate achievement. For example, I think it would be useful to examine the anthropological and social psychology literature on immigration and how immigrants make the transition from one social context to a new one. I also recommend that there be a literature search focusing exclusively on the research of scholars of color and those that are spending their careers focusing on underserved students and examining inequities in the American social system. While many of these scholars have published in well-regarded publications, much of the research on the success of underserved students is likely to be found not in the limited list of “top journals,” but in books, essays, dissertations, monographs, websites, and journals focusing on race, class, and gender issues and how these affect social justice in American society. In my view, this is the critical scholarly work that should inform any model of success for underserved students.

Conduct research on (1) students enrolled in for-profit institutions, (2) Generation 1.5 students, and (3) students accessing curricula through electronic media.

While focusing on these categories of underserved students was beyond the scope of this analysis, it is clear that more research is warranted with these particular student populations. With regard to students in for-profit institutions and those accessing curricula through electronic media, it is important to determine the following: What are students learning? How many students actually complete courses with passing grades? How satisfied are these students with their educational experiences? To what extent are students of color and financially needy students well served by these types of educational systems? With regard to Generation 1.5 students, we need to learn much more about how they make the transition to college, language issues, and placement in reading and writing courses.

Employ face-to-face interviews with underserved students to determine what success is for them.

To understand success for underserved students, we must come from a model/theory that is based on their experience. One thing that was evident from each of the five papers is that, even when some attempt is being made to discuss issues of underserved students, their social, cultural, and academic experiences are still not well understood.

Need for New Theoretical Models

New theoretical models are needed that can be tested and analyzed. In particular, new directions are needed with the following:

Theory of Institutional Transformation

A theory that accounts for how postsecondary institutions might transform their educational and social structures is needed to assist higher education to work more effectively with underserved students. Analytical frames might include feminist theory and critical race theory, as these are likely to be more applicable to underserved students. It is also important to note that institutions must move beyond merely “providing services” such as advising, financial aid, and mentoring to students. If all we want is for institutions to offer/modify services for underserved students, then all that most institutions have to do is tweak what they presently do. However, if we seek to transform, then we need something different. We need a new theory that accounts for how institutions become successful in ensuring the success of underserved students. This speaks to, among other things, rethinking the role of faculty and student affairs personnel, creating an inclusive, multicultural curriculum, and interrogating and instituting appropriate access policies. If we ask what accounts for student success, we must also ask what accounts for institutions that generate success for all students.

Theory of Educating the Whole Person

What does it mean to be an educated person in the world today? The answer to this question should drive a new definition of student success. In my view, students should not be only critical thinkers and problem solvers; they should be able to lead, examine, and work with conflicting perspectives, learn to work with diverse cultures, have a sense of purpose in life, have compassion and appreciate the importance of giving back to communities in need, and be a life-long learner and a global citizen. Most of these “learning outcomes” are not considered by some policymakers who are focused only on checking to see if students stay in college, earn good grades, and graduate. A theory of educating the whole person would speak to education more broadly and not focus only on intellectual, but also social, emotional, and spiritual development.

Pedagogical Theory for Underserved Student Populations

What does it take to help underserved students learn? Faculty play a critical part in assisting students to succeed, and their teaching and learning practices need to be examined in detailed ways. How do they select what is to be taught? What frameworks do they privilege in the classroom and why? What are the politics of learning in the classroom? These and other questions must be interrogated to arrive at a sound pedagogical theory for working with underserved student populations.

Theory of Underserved Student Adaptations to College

Given the extent of cultural and academic incongruity in college, it is important to theorize about how underserved students make the transition to college and adapt not to the same, but to a different world. This theory should explain different patterns of adaptation and how students find different ways to complete college such as forming ethnic enclaves, interacting within and out of college friends, family members, and mentors. This theory should also help to explain how students overcome oppressive environments, deal with racial conflict, interact with different groups, and overcome cultural attacks such as discrimination and stereotyping.

Conclusion

To more fully understand success for underserved students requires a deepened consciousness of educational and social inequalities, unspoken assumptions about students that do not seem to “fit” traditional postsecondary institutional environments, and the unique factors that shape the success of underserved students. Success should not be left to chance. Postsecondary institutions should be engaged in transforming their academic and social structures to foster success not only for the privileged students whose characteristics closely match what postsecondary institutions have traditionally offered and are used to offering. Rather, the challenge is to do things quite differently in the face of a student population that defies homogeneity and seeks to realize an education that values them as capable knowers and views them as whole human beings.

References

- Anderson, J. A. (1995). Toward a framework for matching teaching and learning styles for diverse populations. In R.R. Sims, & S.J. Sims (Eds.), *The importance of learning styles: Understanding the implications for learning, course design, and education*. Westport, CT: Greenwood Press.
- Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1986). *Women's ways of knowing: The development of self, voice, and mind*. New York: Basic Books, Inc.
- Breneman, W. D. (n.d.). The university of phoenix: Poster child of for-profit higher education. Retrieved May 28, 2006, from http://www.ncspe.org/publications_files/breneman.pdf
- Burgis, L. & Rendon, L. (2006). Learning with heart and mind: Embracing wholeness in learning communities. *Religion and Education*, 33 (2), 1-9.
- Cabrera, A. F., Stampen, J. O., & Hansen, W. L., (1990). Exploring the effects of ability to pay on persistence in college. *Review of Higher Education*, 13(3), 303-336.
- Caplan, N., & Nelson, S. D. (1973). On being useful: The nature and consequences of psychological research on social problems. *American Psychologist*, 28, 199-211.
- Chapa, J., & De La Rosa, B. (2006). The Problematic Pipeline: Demographic trends and Latino participation in graduate science, technology, engineering and mathematics programs. *Journal of Hispanic Higher Education*, 5, 203-221.
- Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice. *AAHE Bulletin*, 39, 3-7.
- Davis, J.E. (1998). Cultural capital and the role of historically black colleges and universities in educational reproduction. In K. Freeman (Ed.), *African American culture and heritage in higher education research and practice* (pp. 143-153). Westport, CT: Praeger.
- Freeman, K. (1998). African Americans and college choice: Cultural considerations and policy implications. In Freeman, K. (Ed.), *African American culture and heritage in higher education research and practice* (pp. 181-194). Westport, CT: Praeger.
- Gándara, P., and Moreno J. F. (2002). *The Puente Project: Issues and perspectives on preparing Latino youth for higher education*. Thousand Oaks, CA: Corwin Press.
- Garcia, M.; Hudgins, C. M. Musil, C., Nettles, M.T.; Sedlacek, W.E. & Smith, D.G. (2002). *Assessing campus diversity initiatives: A guide for campus practitioners*. Washington, DC: Association of American Colleges and Universities.
- Gardner, H. (1993). *Multiple intelligence: The theory in practice*. New York: Basic Books.
- Golden, D. (2006). Online university enrollment soars. Retrieved May 28, 2006, from <http://www.post-gazette.com/pg/06129/688698-298.stm>
- Gonzalez, K. P. (2000). Toward a theory of minority student participation in predominantly White colleges and universities. *Journal of College Student Retention*, 2, 69-91.

- Gonzalez, K. P., Olivas, L. & Calleroz, M. (2004). Transforming the post-secondary experiences of Latinos. In L.I. Rendón, M. García, & D. Person (Eds.), *Transforming the first-year experience for students of color* (Monograph No. 38) (pp. 109-122). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Greene, M. (1993). Diversity and inclusion: Toward a curriculum for human beings. Retrieved August 2, 2006, from <http://www.tcrecord.org/Content.asp?ContentID=84>
- Gulikers, G., Meredith, M., & Swartz, B. (2004). Standardizing generation 1.5 programs in Maryland. Retrieved May 28, 2005, from http://academic.pgcc.edu/instruction/if/if_19_03/gulikers-massey-swartz-3-04.pdf
- Gulikers, G., Massey M., & Swartz, B. 2006 http://academic.pgcc.edu/instruction/if/if_19_03/gulikers-massey-swartz-3-04.html; Roberge, n.d <http://www.nnetesol.org/conference/RobergePP.pdf>
Retrieved May 31, 2006
- Harklau, L. (2003). Generation 1.5 students and college writing. Retrieved May 28, 2006, from https://www.cal.org/resources/digest/digest_pdfs/0305harklau.pdf
- hooks, b. (1994) *Teaching to transgress: Education as the practice of freedom*. New York: Routledge.
- Jalomo, R.E. Jr. (1995). *Latino students in transition: An analysis of the first-year experience in the community college*. Unpublished doctoral dissertation, Arizona State University, Tempe, AZ.
- Jalomo, R. E. Jr. & Rendón, L. I. (2004). Moving to a new culture: The upside and downside of the transition to college. In L.I. Rendón, M. García, & D. Person (Eds.), *Transforming the first-year experience for students of color* (Monograph No. 38) (pp. 37-52). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Lederman, D. (2005). Expanding access via distance ed. Retrieved May 28, 2006, from <http://www.insidehighered.com/news/2005/04/13/distance>
- Lederman, D. (2005). The sounds of Stanford, via the iPod. Retrieved May 28, 2005, from <http://www.insidehighered.com/news/2005/10/21/itunes>
- Lee, W. Y. (2004). Transforming the first-year of experience of African Americans. In L.I. Rendón, M. García, & D. Person (Eds.), *Transforming the first-year experience for students of color* (Monograph No. 38) (pp. 93-107). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Longerbeam, S.D., Sedlacek, W. I., & Alatorre, H. M. (2004). In their own voices: Latino student retention. *NASPA Journal*, 41(3), 538-550.
- Millett, M. C. and Nettles, T. M. (2005, November). *Expanding and cultivating the Hispanic STEM doctoral workforce: Research on doctoral student experiences*. Princeton, NJ: Educational Testing Service.
- Musil, C. M., Garcia, M., Hudgins, C. Smith, D. Sedlacek, W. & Nettles, M. (2000). *To form a more perfect union. Campus diversity initiatives: A National Profile*. Washington, DC: Association of American Colleges and Universities.

- Nettles, M.T. & Perna, L.W. (1997). *African American education data book: (Vol. 1) Higher and Adult Education*. Washington, DC: Frederick D. Patterson Research Institute of the College Fund/UNCF.
- Nora, A. (2003). Access to higher education for Hispanic students: Real or illusory? In J. Castellanos & L. Jones (Eds.), *The Majority in the Minority: Expanding the Representation of Latina/c Faculty, Administrators and Students in Higher Education*. Sterling, VA: Stylus.
- Nora, A. & Anderson, R.G. (2003, April). *The role of religiosity as a determinant of persistence for minority and non traditional college students: A logistic regression analysis of a theoretical model of student persistence*. Paper presented at the annual meeting of the American Educational Research Association.
- Oakes, J. (2003). Education inadequacy, inequality, and failed state policy: What William v. State of California reveals about accountability. *Veffie Milstead Jones Distinguished Lecture*, California State University, Long Beach.
- Osei-Kofi, N., Richards, S. L., & Smith, D. G. (2004). Inclusion, reflection, and the politics of knowledge: On working toward the realization of inclusive classroom environments. In L.I. Rendón, M. García, & D. Person (Eds.), *Transforming the first-year experience for students of color* (Monograph No. 38) (pp. 55-66). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Person, A. E., & Rosenbaum, J. E. (2006). Chain enrollment and college enclaves: Benefits and drawbacks of Latino college students' enrollment decisions. *New Directions for community colleges*. No. 133, Wiley Periodicals, Inc.
- Rendón, L. I. (1994). Validating culturally diverse students: Towards a new model of learning and student development. *Innovative Higher Education*, 19(1), 33-50.
- Rendón, L. I. (1998). *Access in a democracy: Narrowing the opportunity gap*. Commissioned Report of the Policy Panel on access of the National Postsecondary Education Cooperative, Washington, DC.
- Rendón, L. I. (2000). Academics at heart. *About Campus*, 5(3), 3-5.
- Rendón, L. I. (2002). Community college Puente: A validating model of education. *Educational Policy*, 16(4), 642-667.
- Rendón, L.I. (2006). *Facilitating student success. Transforming teaching and learning*. Keynote presentation at Pennsylvania State University.
- Rendón, L. I., & Hope, R. (1996). *Educating a new majority*. San Francisco: Jossey-Bass
- Rendón, L. I., Jalomo, R. E., & Nora, A. (2000). Theoretical considerations in the study of minority retention. In J. M. Braxton (Ed.), *Reworking the Student Departure Puzzle* (pp. 127-56). Nashville, TN: Vanderbilt University Press.
- Rendón, L. I., García, M. & Person, D. (2004). A call for transformation. In L.I. Rendón, M. García, & D. Person (Eds.), *Transforming the first-year experience for students of color* (Monograph No. 38) (pp. 3-22). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.

- Rendón, L. I., & Burgis, L. (2006). Learning with the heart and mind: Embracing wholeness in learning communities. In P. Laurence, & J. L., Subbiondo (Eds.)
- SouthEast Asian Campus Learning and Retention (SEA CLEAR). Retrieved June 4, 2006 from <http://www.studentretentioncenter.ucla.edu/main.asp?nav=projects&nav=SEA%20CLEAR>
- Stampen, J.O., & Cabrera, A. F. (1988). Is the student aid system achieving its objectives: Evidence on targeting and attrition. *Economics of Education Review*, 7, 29-46.
- Terenzini, P.T., Rendón, L. I., Upcraft, M. L., Millar, S.B., Allison, K. W., Gregg, P.L., & Jalomo, R. (1994). The transition to college: Diverse students, diverse stories. *Research in Higher Education*, 35, 57-73.
- Trueba, H. T. (2002). Multiple ethnic, racial and cultural identities in action: From marginality to a new cultural capital in modern society. *Journal of Latinos in Education*, 1(1), 7-28.
- Valdes, G. (1992). The role of the foreign language teaching profession in maintaining non-English languages in the United States. In H. Byrnes (Ed.), *Languages for a multicultural world in transition* (pp. 29-71). Skokie, IL: National Textbook Company.
- Woodlief, B. Thomas, C. & Orozco, G. (2003). *California's gold: Claiming the promise of diversity in our community colleges*. Oakland, CA: California Tomorrow.
- Yang, X. & Feng, X. (2004). Transforming the first-year experience for Asian/Pacific Americans. In L.I. Rendón, M. García, & D. Person (Eds.), *Transforming the first-year experience for students of color* (Monograph No. 38) (pp.123-135). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Zwerling, L.S., & London, H. (Eds.). (1992). *First generation students: Confronting the cultural issues* (New Directions For Community Colleges No. 80). San Francisco: Jossey-Bass.

APPENDIX A

Figure A-1: Congruity of College World and World of Middle- and Upper-Class Students

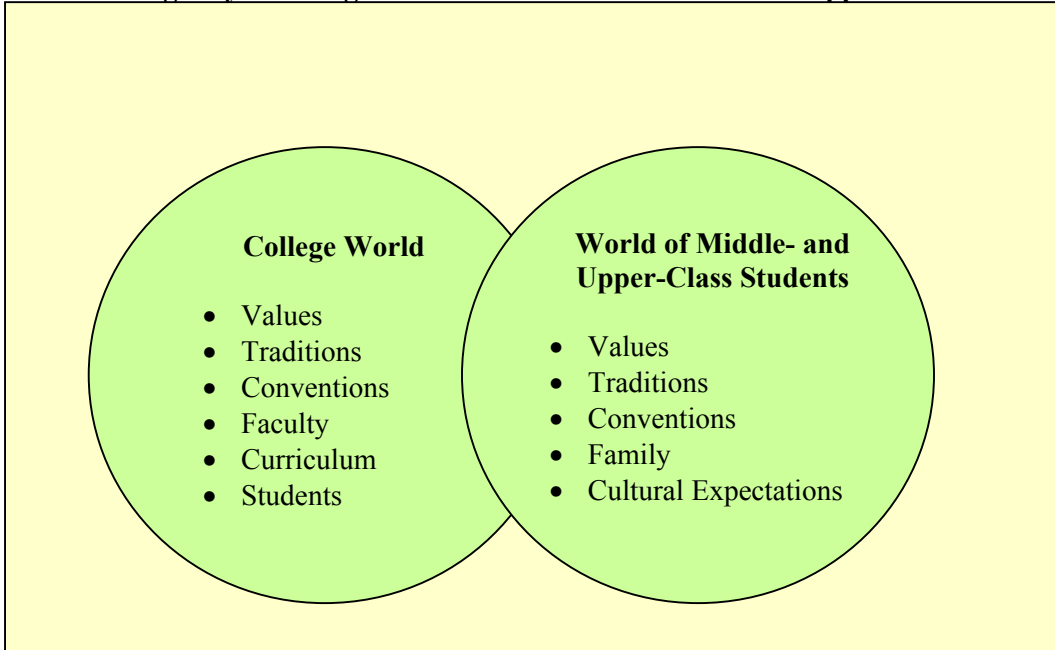
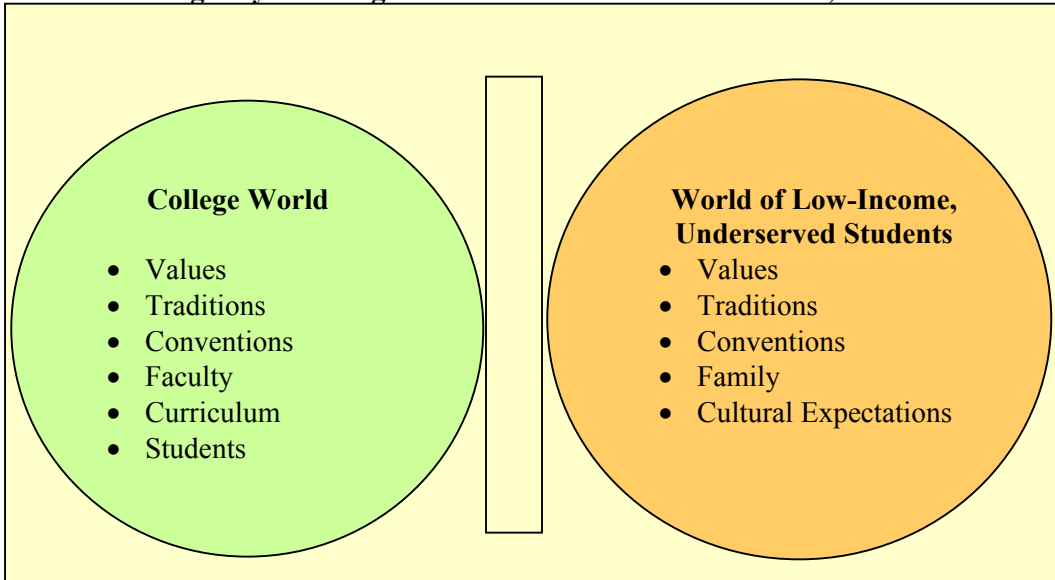


Figure A-2: Incongruity of College World and World of Low-Income, Underserved Students



APPENDIX B

Figure B-1. Interactive Model of Success for Underserved Students (Rendón, 2006)

