# Institutional Policies, Programs, and Practices Critical to Higher Educational Student Success

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**Abstract**

*A pressing issue facing American universities is the number of students' high attrition rate. Nearly one out of five four-year institutions graduate fewer than one-third of its first-time, full-time degree-seeking first-year students within six years. This low graduation rate has a broad economic and sociopolitical perspective on the broader society. A large body of research exists on the causative factors - mostly students' educational, financial and socio-economic background characteristics, pre-college experiences and institutional characteristic. This leakage in the educational pipeline is costly to universities scarce resources, local and national educational goals and a near term social and political consequences. This literature review attempts to address this set of critical issues by reviewing the literature and emerging findings related to student academic success to degree attainment. This article focuses solely on the higher educational institutional conditions – policies, programs, practices, structural and organizational characteristics, teaching and learning approaches are associated frameworks with a goal to develop an informed perspective on higher educational institutional policies, programs, and practices that can make a difference to satisfactory student performance, assist and support students' academic and social success, which in turn improve persistence, retention to academic attainment.*

**Key words:** Retention, educational policies, administration, students' affairs, socioeconomic status

## 1. Introduction

Earning a bachelor's degree is associated with long-term cognitive, social, and economic benefits to individuals, benefits that are passed on to future generations, enhancing the quality of life of the families of college-educated persons, the communities in which they live, and the larger society. Whereas college was once considered an option for a relatively small percentage of the adult population, this is no longer the case. Indeed, the majority of an age cohort—perhaps more than 80 percent—needs some form of postsecondary education to live and work productively in a rapidly changing, information-based economy.

Creating conditions that foster student success in college has never been more important. As many as four-fifths of high school graduates need some form of postsecondary education to prepare them to compete and to live an economically self-sufficient life and to deal with the increasingly complex social, political, and cultural issues they will face. Earning a baccalaureate degree is one, if not the most important rung in the economic ladder (Pascarella & Terenzini 2005) as college graduates on average earn substantially more over the course of their working lives than those with only a high school diploma (Pennington 2004).

Given the strong demand to demonstrate evidence of student success in postsecondary education, multiple definitions of the construct exist to show evidence of higher educational success.

Among the more commonly incorporated elements are quantifiable student attainment indicators, such as enrollment in postsecondary education, grades, persistence to the sophomore year, length of time to degree, and degree attainment (Venezia et al. 2005).   Some of the more difficult to measure aspects of student success are the degree to which students are satisfied with their experience and feel comfortable and affirmed in the learning environment.  Astin (1993b) proposed that satisfaction is an intermediate outcome of college.  Taken together, students' impressions of institutional quality, their willingness to attend the institution again, and overall satisfaction are precursors of educational attainment and other dimensions of student success (Strauss & Volkwein 2002), are proxies for social integration (Tinto 1993), or the degree to which a student feels comfortable in the college environment and belongs to one or more affinity groups.

Student success is also linked with a variety of desired student and personal development outcomes that confer benefits on individuals and society.  These include proficiency in writing, speaking, critical thinking, scientific literacy, and quantitative skills and more highly developed levels of personal functioning represented by self-awareness, confidence, self-worth, social competence, and sense of purpose.

Student persistence research is another area where new conceptions have emerged on factors that influence students' ability and commitment to persist to graduation.  Studies of nontraditional students, commuters, and other underrepresented populations have identified external factors that affect student persistence, such as parental encouragement, support of friends, and finances (Braxton, Hirschy, & McClendon 2004). Studies of first-generation students suggest the important role that student characteristics and behaviors, including expectations and student effort, play in student persistence and other measures of success in college (Pascarella, Pierson et al. 2004; Pike & Kuh 2005).

For the purposes of this review, student success is defined as academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post college performance.

## 2.  Framework for Student Success in Higher Education

The students'precollege educational experiences set the framework for college experience and success.  Other mediating factors including family background, college enrollment choices, financial assistance policies, high school GPA, adequate credit load, and passing general education courses without the need for remediation within the first two years of college (Moore & Shulock, 2009; Roderick, Nagaoka, & Coca, 2009), maintaining a 3.0 GPA or higher and attending college full-time, as defined by earning 30 credits within the first year, are correlated with on-time degree completion (Leinbach & Jenkins, 2008).

Other central features to successful college experience are students' behaviors and institutional conditions.

Student behaviors include the time and effort students put into their studies, interaction with faculty, and peer involvement, and institutional conditions including resources, educational polices, programs and practices, and structural features.

At the intersection of student behaviors and institutional conditions is student engagement.  This article focusses on student engagement because it represents aspects of student behavior and institutional performance that colleges and universities can impact, at least on the margins, whereas many other factors such as precollege characteristics are typically beyond the direct control of the college or university.  Equally important, high levels of student engagement are associated with a wide range of educational practices and conditions, including purposeful student-faculty contact, active and collaborative learning, and institutional environments perceived by students as inclusive and affirming and where expectations for performance are clearly communicated and set at reasonably high levels (Astin 1991; Chickering & Gamson 1987; Pascarella & Terenzini 1976, 2005). These and other student behaviors and institutional conditions are related to student satisfaction, persistence, educational attainment and learning and development across a variety of dimensions (Astin 1984, 1985; McKeachie et al. 1986; Pascarella & Terenzini 1995; Pike 1993; Sorcinelli 1991).

Organizational perspectives emphasize the institutional structures and processes that are thought to affect student performance.  Among the more important features are institutional size, selectivity, resources, and faculty-student ratios.  The most frequently cited organizational perspective, Bean's (1983) student attrition model, pointed that beliefs shape attitudes, attitudes shape behaviors, and behaviors signal intents.

A student's beliefs are affected by experiences with the institution, which then evolve into attitudes about the institution, which ultimately determine a student's sense of belonging or "fit" with the institution. Thus, students' perceptions of the fairness of institutional policies and the responsiveness of faculty and staff presumably affect decisions to persist or leave the institution. Similarly, the leadership and decision-making approaches favored by senior administrators are also thought to have some effect on student satisfaction and adjustment (Berger & Braxton 1998). Pike & Kuh (2005) lend some support to this view by suggesting that negative perceptions of the campus environment are associated with a variety of general institutional characteristics, including size, control, mission, and location (urban, suburban, or rural). Nonetheless, the links between these features of institutional functioning and student behavior are not well explicated and, in Braxton's (2003) judgment, lack explanatory power.

## 2.1. Campus Residences

As indicated in the previous section on structural characteristics, residence halls can be a powerful vehicle for incorporating students into college. Residence halls help students develop social connections with peers who are dealing with similar challenges and difficulties. The formation of peer communities supports Astin's (1993b) findings that the single most powerful influence on college students' cognitive and social development is their peers. Social network theory may in part explain why students who do not have an affinity group have more trouble persisting in college when they encounter difficulty. Moreover, Pascarella & Terenzini (2005) reported that students in halls with strong academic orientation generally have greater academic achievement than do other students. Residence halls with an academic orientation—typically identified as living learning communities—house students together and provide some common academic experiences - usually courses, academic support services, or lecture series, to enrich the academic connections among students.

The benefits of residential living-learning communities are documented in several studies in the National Learning Communities Project monograph (Taylor 2003). In their study of students in freshman interest groups, Pike, Schroeder & Berry (1997) found that although residential learning communities did not improve students' academic achievement and persistence directly, they indirectly improve students' success by enhancing their incorporation into the college environment. Participation in a freshman intake group was also associated with higher levels of involvement in campus activities, greater interaction with faculty outside the class and with peers, and higher levels of integration of course information (Schroeder, Minor, & Tarkow 1999). This research corroborates that educational interventions in residence halls can have a positive effect on the quality of students' interaction with peers and faculty, which in turn enhances achievement and persistence (Pike et al, 1997).

## 2.2. Student Success Initiatives

Student success initiative courses typically address issues such as optimal use of campus support resources and time management, advising and career development, and skill development including goal setting, and test and note taking (Gardner & Jewler 1995). These courses have been credited with helping students learn effective study skills and improve retention of course material (Helmcamp & Petrie 1998). The adaptive skills fostered in such courses are prerequisite behaviors that have direct and indirect influences on persistence and graduation. Furthermore, when academic support services are designed to meet student learning needs for particular courses, departments or majors, such as supplemental instruction or study groups linked to gateway courses, student persistence is enhanced (Tinto 2004). Student success courses also support underrepresented students' adjustment to college. For example, participating in academic support courses and programs was found to contribute to a stronger sense of belonging among Latinos in college (Hurtado & Ponjuan 2005). Linking academic support to the classroom is especially valuable to commuting students, who may have limited time on campus, and to ensure that all students have access to academic support services.

## 2.3. Remediation Courses.

About one-third of entering college students take developmental courses to bring their academic skills up to a level that will allow them to perform adequately in college (Bettinger & Long 2005, Grace-Odeleye et al, in press). However, the contributions of remediation to retention is mixed. A study showed that taking remedial courses is associated with student retention (Hoyt 1999). Another report (Bettinger & Long, 2005) indicated that students who take remediation courses were more likely to persist in college in comparison to students with similar test scores and backgrounds who were not required to take the courses, and the participants were more likely to transfer to a higher-level college and to complete a bachelor's degree. In addition, developmental education courses were also found to play an important role in student success at institutions with high graduation rates (The Pell Institute 2004).

Other studies have produced contradictory findings (Burley, Cejda, & Butner 2001). However, remediation in English was found to have a positive effect on Latino students, which may help them overcome challenges associated with English being their second language (Swail et al. 2005). Perhaps remediation helps students bring their performance up to levels that allows them to stay in school academically, even though their grades may not be comparable to those who do not require remediation.

By tailoring remediation programs to the specific characteristics of students in need of such assistance, institutions are better able to serve and move students from developmental courses to college- level courses. The use of different methodologies, and teaching strategies, such as using intensive review formats or "refresher workshops" in math or grammar fundamentals to prepare returning adult students to take assessment and placement tests, have been found to be a more efficient approach to moving returning adults into college-level courses (Ignash 1997). In contrast, to address the needs of younger students, it is especially helpful when community colleges cooperate with high schools to clarify what college readiness means in terms of academic expectations and requirements, and collaborate with schools to develop programs to meet high school students' developmental needs (Ignash, 1997). Despite some promising findings, there is still more to learn about the most effective approaches to working with students with weak academic skills at community colleges (Bailey & Alphonso 2005; Boyland 2002; Grubb 2001).

Some components of developmental education initiatives known to contribute to persistence include required entry-level testing, mandatory placement in basic skills courses, mandatory orientation programs, no late registration options, reduced academic load for working students, incorporation of problem-solving skills in all developmental courses, continuous program evaluation, developmental and arrangement of sequence of courses, course load restrictions even after completing sequence, early warning and academic progress information systems, continuous mid-term academic performance report, degree audit system for academic advising, and frequent discussions about major/program intent, and full-time director to organize and coordinate developmental education initiatives (Ignash 1997; Lucy-Allen, Merisotis, and Redmond 2002).

## 2.4. Student Support Services

Some evidence suggests that the ratio of student development professionals to students influences persistence. Hedlund & Jones (1970) found that all the 2-year colleges in their sample with no greater than a 1:150 student development professional to student ratio graduated 50 percent or more of their students in 2 years in contrast to the 20 percent graduation rate of the colleges with a ratio of more than 1:150. Astin (1993b) reported a similar relationship between persistence and resources allocated to student services and personnel. Pascarella & Terenzini (1991) cautioned, however, that such findings are confounded by many factors, including systematic differences in the ability of students attending certain institutions and the institution's enacted mission and ethos (Kuh 1995). For example, perhaps institutions that invest in more student development professionals also have other attributes that promote student success that previous studies have not measured (Kuh et al. 2005b).

Lewis and Middleton (2003) emphasized the importance of a child care facility on campus to African American persistence, transfer from 2- to 4-year institutions, and degree completion. Child care is also a major challenge facing low-income adults pursuing postsecondary education. Kappner (2002) found that when child care is provided on campus, student parents are more likely remain in school, graduate in fewer years, and earn higher grades. Other important services for adult learners are quiet work and study areas, academic support services available for extended hours, and family-oriented activities (Cook & King 2005). Notably, the private, for-profit sector of postsecondary education seems to be more responsive in providing such services for adults compared with other sectors of higher education. Bailey, Badway, & Gumport (2001) found that student services such as admissions, counseling, and career placement were more integrated and better developed at the for-profit than at the comparison community colleges in their study (Grace-Odeleye, 1998).

## 2.5. Teaching and Learning Approaches

Widespread use of effective pedagogical practices must be at the core of any agenda to promote student success. This area of research has received more attention than any other over the past dozen years (Pascarella and Terenzini 2005), and is fueled by the expanding research and theory on human learning (National Research Council 2000). Publications (Barr & Tagg 1995; Chickering & Gamson 1987, 1991; Cross 1998, 1999; Guskin 1994, 1997; Hutchings 1996) described the value of restructuring the teaching and learning environment to maximize student learning. This restructuring is characterized by a shift in emphasis from faculty teaching to student learning (Barr & Tagg, 1995).

This shift promises to have profound implications for setting higher expectations for students, for raising academic standards, for asking students to take more responsibility for their learning, for demonstrating competency through assessment, and for emphasizing and validating alternative ways of knowing, interdisciplinary methods, and problem-focused learning.

## 2.6. Institutional Educational Philosophy

Sorcinelli, (1991) posited that faculty who show regard for their students' unique interests and talents are likely to facilitate student growth and development in every sphere--academic, social, personal, and vocational. Maintaining an unshakable focus on student success is manifested by holding high expectations for all students and is a central feature of institutions with a student success-oriented educational philosophy. A key element of this approach is adopting a talent development philosophy throughout the institution. In addition to recognizing that every student can learn under the right conditions, the talent development view requires that the institution organize its resources and create conditions for teaching and learning based on educationally effective practices.

The talent development view also recognizes the need to embrace and address students' diverse talents and needs (Chickering & Gamson 1987). Although a talent development philosophy is appropriate for all students, it is particularly effective for working with students historically underserved in higher education, especially when pedagogical practices acknowledge and honor the experiences of adult learners and view the talents and skills students bring to the classroom as assets versus deficiencies. Such a view hold that because each student has a unique perspective on the world and the topic under study, all students enrich the learning of others as well as their own through sharing their knowledge and experience (Alexander & Murphy 1994). Because faculty members often misunderstand, ignore, or devalue the talents of students from diverse backgrounds, these learning style differences can be viewed as academic deficiencies in need of remediation (Pounds 1987). Treisman (1992) noted that many students from historically underserved groups at a large state school were failing calculus even though they had the academic prerequisites and demonstrated ability to perform successfully. He found that environmental disorientation was the problem, not lack of motivation as was assumed initially by their instructors. Treisman developed strategies so that these African American and Hispanic students could use and further hone their mathematical and problem-solving talents. By adopting a talent development perspective and taking into account the backgrounds and characteristics of the students, Treisman and his colleagues developed a model program that is responsive to the needs of a variety of students (Kuh & Lund, 1994).

## 2.7. Pedagogical Approaches

Institutions that adopt educational philosophies that value undergraduate student learning also tend to encourage the use of such engaging pedagogies as active and collaborative learning, classroom-based problem solving, peer teaching, service-learning, and various forms of electronic technologies. Other promising instructional practices are supplemental instruction, peer tutoring, reciprocal teaching, attributional retraining, concept-knowledge maps, and 1-minute papers. According to Bourner (1997), the greater the repertoire of teaching methods, the more effective the learning experience, especially when teaching approaches are aligned with student abilities and preferred learning styles and learning aims. For example, if the goal is to disseminate up-to-date knowledge, lectures, guest lecturers, and use of the Internet may be effective methods. If the aim is the develop students' ability to test ideas and evidence, seminars, feedback on written work, and peer and self-assessment are good methods. In general, it is important for faculty to have high aspirations for learning outcomes, clear expectations for student performance, and standards for holding students accountable (Hassel and Lourey 2005).

Setting high expectations and then supporting and holding students accountable for reaching them is an effective strategy for encouraging student success. High expectations for student performance characterized institutions with higher than predicted student engagement and graduation rates (Kuh et al. 2005b). According to Blose (1999), students tend to adjust their behavior and comply, regardless of their prior academic history, to the academic expectations of the environment. The author found that students at selective institutions promoting high academic expectations exceeded predicted performance expectations, suggesting that a self-fulfilling prophecy was at work. Although high expectations for student success should be encouraged at all institutions, Rosenbaum (1998) cautioned that it must be accompanied by realistic advice to students about degree completion and what is necessary to succeed.

Rendon (1999) found that "validation"—an enabling, confirming, and supportive process initiated by faculty and other agents of socialization in and out of the classroom fosters student success, particularly for historically underserved students.

Validation activities in the teaching and learning context include calling students by name, working one on one with students, praising students, providing encouragement and support, encouraging students to see themselves as capable of learning, and providing vehicles for students to support and praise each other. These validation actions can induce transformational changes in students, accompanied by an increased interest and confidence in their capacity to learn.

According to Volkwein & Cabrera (1994); Volkwein, et al, (1986), such classroom experiences as whether students are intellectually challenged, are learning new things, and are given stimulating assignments are the most important influences on student growth and satisfaction.  Other beneficial classroom experiences include supportive contact between students and faculty and the degree to which students are engaged and exert effort.  Such favorable classroom experiences stimulate learning and contribute to greater intellectual growth (Strauss & Volkwein 2002; Volkwein & Cabrera,1994). Furthermore, these classroom experiences were found to be independent of incoming student characteristics (race/ethnicity, sex, financial need, family background), but not of the effort students expend (Volkwein & Cabrera, 1994).  However, perceptions of discrimination and prejudice in the classroom have significant negative effect on student persistence, particularly for minority students (Nora and Cabrera 1996).

Volkwein et al. (2000)  reported that the most  consistently influential variable on students' academic achievement and cognitive growth were items about faculty behaviors representing being well- prepared for class and designing assignments students considered meaningful.  These faculty behaviors also appear to be associated with gains in students' cognitive development (Pascarella 2001).

Instructor qualities that matter include preparation and organization, clarity, availability and helpfulness, and concern for and rapport with students.  As summarized by Angelo & Cross (1993) and Pascarella & Terenzini (2005): Good teachers are knowledgeable about their subject matter, are enthusiastic,  encourage students to express their views through discussion, and interact with their students, both in and outside of class. Students learn more from courses when they are given timely feedback that is both supportive and corrective  When students are expected to work hard, academic achievement, class attendance, and their sense of responsibility all increase (Marsh 1984). Since every student learns differently, individualized instruction is more effective under most circumstances (McKeachie et al. 1986).

It seems reasonable to assume that if these effective approaches were adapted by faculty, administrators, student affairs staff, and others who routinely interact with students outside the classroom (e.g., faculty advisors to organizations, internship supervisors, employers, peer mentors), out-of-class experiences would make a greater contribution to students' learning and personal development and increase institutional productivity (Kuh et al. 2005b).  Helping faculty members acquire these skills should be a priority for faculty development programs.

## 2.8 Active and Collaborative Learning.

Most of the scholarship on teaching and learning indicates that the passive lecture format where faculty do most of the talking and students listen is contrary to almost every principle of an optimal learning environment (Barr &Tagg 1995; Guskin 1997).  Rather, active and collaborative learning approaches feature three elements that matter to student learning:  involving students, increasing their time on task, and taking advantage of peer influence.  Active and collaborative learning is an effective educational practice because students learn more when they are intensely involved in their education and are asked to think about and apply what they are learning in different settings. Collaborating with others on academic work and problem solving prepares students to deal with the messy, unscripted situations they will encounter daily during and after college and substantially increases the amount of time and effort students spend learning (Guskin 1997). Active learning has been found to have differential impact on various student populations and in different disciplines.  For example, first-generation students who report more participation in group discussion, presentations, performances, research projects, and group projects, and who more frequently discuss courses with other students, had higher probability of success (Smith, Kurban, & Amelink, 2017; Skahill, 2003; Grace-Odeleye, 2007).

Problem-based, or inquiry-based, learning has gained a strong foothold in health science education.  For example, faculty in science, engineering, technology, and mathematics courses were encouraged to infuse active learning into the classroom (Allen 1985; Duch, Gron &Allen 2001).  Ebert-May & Brewer (1997) documented the efficacy of reform efforts, including more active learning in place of the traditional lecture format; the infusion of cooperative learning into lectures, and the addition of in-class science activities, debates, simulations, and discussions, in introductory biology courses.

They reported that students learned more effectively by participating in a cooperative group; enjoyed their social interactions; characterized the classroom environment as friendly, nonthreatening, fun, and dynamic; and reported a sense of belonging and camaraderie because they regularly interacted with peers and learned from each other. Students also reported that the course had a positive impact on how hard they worked and their level of attention in class because they more frequently reported to the class about their progress on assignments. They concluded that to improve biological literacy, educators must emphasize the process of knowing and depth of content rather than trying to cover as much information as possible.

Active and collaborative learning seems to introduce other opportunities for engaging in other effective educational practices and contribute to social integration, institutional commitment, and intent to return (Braxton, Milem & Sullivan 2000).  That is, active learning experiences are positively associated with increased frequency of student contacts with faculty members (probably because the nature of class activities and out-of-class assignments requires it) and more positive views of the campus environment (probably mediated by getting to know classmates better through the collaborative exercises).  It is perhaps through these experiences that active learning exerts a positive influence on student integration and persistence.

**2.9 Feedback Mechanism.**  As mentioned previously, timely and apt feedback are positively associated with student learning and success (Chickering & Gamson 1991; Kuh 2003).  Feedback that furthers learning provides students with ongoing guidance and information about whether they are on track in a way that enables adjustment (Tagg 2003). Faculty members provide appropriate challenge and support to students when they communicate high standards to students and provide timely and apt feedback and support to meet their students' needs (Kuh et al. 2005b).  The best feedback is interactive, involving teachers, staff, and students in a conversation about how the student is performing. Correspondingly, the use of classroom assessment techniques (Angelo & Cross 1993) provides faculty members with data on teaching effectiveness and student comprehension and also involves students in active mental processing of information and makes them more aware of themselves as learners (Cambridge 1996; Steadman 1998).

**2.10  Instructional Technology.**  Instructional technology has matured at the same time as pedagogical approaches have expanded to serve more diverse learners.  Kuh & Hu (2001b) found that older first-year students were much less likely to use electronic technology to complete assignments or discuss course topics with peers and instructors. Those students who frequently used information technology for classroom-related activities or assignments were more likely than their counterparts to report that their courses frequently emphasize higher order thinking skills, a component of academic challenge (Nelson- Laird & Kuh 2005).

Some evidence suggests that courses redesigned to infuse instructional technology have made the teaching and learning enterprise more active and learner centered (Twigg 2005). Educationally effective course redesigns included instructional software and web-based learning to engage students with course content, learning paced around mastery and modular formats, expanded support systems online and in labs, small group activities, and alternate staffing for instructional personnel including undergraduate peer mentors and course assistants. Course redesign projects showed improvement in course completion rates, lowered drop-failure-withdrawal rates, and higher achievement rates (Twigg 2003).

Courses using technology, particularly those that require participation in specific experiences and on-demand support services, have been found to be positive for underserved students, especially those who are low income, first generation, and working adults (Twigg 2005).  Quality improvement techniques included online tutorials; continuous assessment and feedback, particularly in large courses moved to automated assessment; more feedback, quizzes, online quizzing; increased interaction among students, supported via the Internet; individualized on-demand support; submission of mid-stage drafts of papers to tutors at any time; use of computer or group learning supplemental instruction and learning centers; use of undergrad learning assistants instead of graduate students; early interventions; setting baseline performance standards; and contacting those falling behind (Twigg, 2005).

Faculty report that the use of technology in redesigned courses helped to create a more open, inclusive learning environment.  Previously, students of color would not speak out in class, but in the redesigned course they more frequently contributed while online. Both adults and students of color used the online resources for self-remediation—probably, the faculty surmise, because no one knew they were doing so. Rather than feeling stigmatized when seeking help, students could find what they needed on their own time and without anyone's knowing.

The learning environment at the University of Alabama, where students received individualized assistance in labs, was much friendlier to students seeking help than the traditional classroom was, and it led to higher performance among African American freshmen (Twigg 2005).

**2.11 Student-Centered Campus Cultures.**  Student learning is encouraged and supported through the cultivation of human scale settings and an ethos of learning that pervades all aspects of the institution (Kuh et al. 1994). Learning environments with these characteristics do not happen by accident.  They are intentionally designed (Kuh et al. 2005b;).  According to Strange & Banning (2001), campus environments set conditions that affect student learning and, in turn, students influence the shape of campus environments. In the broadest sense, the campus environment includes the physical component, a social component,  an institutional component and an "ecological-climate dimension" derived from the interaction of the other three (Conyne & Clack 1981).

The natural and built physical environments of the campus shape behavior by permitting certain kinds of activities while limiting or making impossible other kinds.  Moreover, students' commitment in terms of persistence and loyalty to the institution can be strengthened by intentionally creating a strong sense of place through connecting campus architecture and design to meaningful experiences and memories of activities (Kuh at al. 2005b).  The proximity of academic buildings to student residences can promote or inhibit interactions between students from different majors (Kuh 2000).  Thus, the actual features of the physical environment can encourage or discourage the processes of learning and development (Strange & Banning 2001).  Institutions vary considerably as to the degree to which their physical and social environments foster or are congenial to student success (Berger & Milem 2000; Pascarella & Terenzini 2005).  For example, institutions can encourage student-faculty interaction and peer interaction before and after class by placing benches and comfortable seating areas near classrooms, while others support student-faculty interaction by creating well-equipped group study space proximal to faculty offices, thereby increasing the likelihood of spontaneous interactions between students and faculty (Kuh et al. 2005b).

The built environment directly affects what people with physical or visual limitations can do.  Carvings, statues, paintings and other aspects of the adapted environment value or privilege some groups over others; in some instances, members of certain groups may find some of these properties, such as featuring portraits solely of white male campus leaders in a popular meeting room in the student center, alienating (Banning & Bartels 1997). Understanding how various groups of students perceive and react to the physical environment should be an essential step in any effort to enhance student satisfaction and success (Banning & Cunard 1996).

The social component represents students' demographic characteristics as well as dominant personality orientations that can be represented by the proportions of student pursuing various majors.  That is, institutions with large numbers of engineering and science majors differ in their environmental press from schools that have large numbers of business and performing arts students, as the personalities of the former tend to be realistic and conventional while the latter are enterprising and artistic (Holland  & Huba, 1991).  Smart, Feldman, & Ethington (2000) emphasize the importance of academic environment as the primary mechanism by which students further their distinctive patterns of abilities and interests. The most favorable classroom experiences, faculty interaction, and intellectual and disciplinary growth was reported by seniors majoring in departments rated high on both measures of teaching and research, and students in departments that lacked a strong research climate or strong teaching climate reported less favorable experiences with faculty in and out of class (Volkwein and Carbone 1994). Thus, a robust departmental research orientation is  neither beneficial nor detrimental to academic experiences of students, but when strong research combines with attention to teaching, it can have beneficial influence on the academic integration and intellectual growth of undergraduate majors.

**2.12. Designing for Diversity**

Findings from research studies on diversity in college classrooms demonstrate that campus diversity benefits all students.  As Bauman et al. (2005) emphasize, diversity should not be perceived as simply a numerical goal of a percentage of students of color, but a process toward better learning and equity in educational outcomes for all students.  For example, Kuh and Umbach (2004) found that one reason students at liberal arts colleges report having more experiences  with diversity is because of frequent exposure to diverse perspectives in their classes. Among the more effective teaching and learning approaches related to productively introducing diverse perspectives are using interactive teaching techniques, such as small group discussions, role playing, and debates; a supportive, inclusive classroom climate; and faculty members who see themselves as learners and reflect on how to use the diversity present among members of the class to enhance learning.

Swail (2003) noted that the effectiveness of a campus-wide retention program depends on supportive leadership, willingness to evoke change on campus, and careful planning. It is also important that institutional efforts to integrate students of color into predominantly White academic communities be sensitive to their needs and concerns (Eimers & Pike 1997; Terenzini et al. 1994). Feeling a sense of fit and belonging at the institution is important because being validated by faculty, staff, and peers helps students believe they can succeed (Hernandez 2000; Hall, 2017; Rendon 1998, 1999; Suarez 2003). One of the cultural factors that may inhibit the success of African American students at PWIs is that Black students spend more energy dealing with feelings of alienation and frustration, as well as a lack of campus support, than students at HBCUs (Hall, 2017; Watson & Kuh 1996). Dawson-Threat (1997) found that African American men benefit from more occasions to make connections between the reality of their lives and learning experiences in the classroom. Students need safe spaces to express their personal views, struggle with understanding human differences, and explore their identities.

## 2.13 Institutional Ethic of Improvement

Institutions focused on improving student success use information to assess their performance, pinpoint where improvement is necessary, inform change strategies, and monitor their effectiveness. Kuh et al. (2005b) called this continuous assessment and improvement ethic "positive restlessness." Nettles et al. (1999) underscored the importance of developing a database for effective monitoring and evaluation to address retention, degree progression, and graduation objectives at HBCUs. For example, Bensimon's (2004) "Diversity Scorecard," a process designed to help campuses discover and enhance their capacity to achieve comparable results for African American and Latino/a students, puts data to use by establishing indicators to assess efforts to address inequities in educational outcomes. Evidence is assembled using institutional data to examine equity from four perspectives: access, retention, excellence (measurements of achievement for underrepresented students), and institutional receptivity (measures of institutional support for an affirming campus).

## 3. Summary

Institutions that foster student success provide stimulating classroom experiences that encourage them to devote more time and effort to their learning and help them develop good study habits (Kuh et al. 2005b; Volkwein et al. 2000). It is particularly important for institutions to invest in academic support services designed for the needs of diverse students (Bailey and Alfonso 2005), and for student and academic affairs to work together to improve the learning climate in and outside the classroom to have the greatest impact on student success. The institutional conditions associated with student success include: a clear, focused institutional mission, high standards and expectations for student performance, assessment and timely feedback, student learning centered culture, peer support programs, encouragement and support for students to explore human differences, emphasis on the first college year, respect for diverse ways of learning, integration of prior learning and experience, academic support programs tailored to meet student needs, ongoing application of learned skills, active learning, collaboration among student and academic affairs, and among students, environment that emphasizes support for academic work, and out-of-class contact with faculty.

The relevance of most of these conditions to student success has been demonstrated by their effective use at different types of colleges and universities across the country. For example, most institutions "front load" or concentrate resources on first-year students. Other institutions have developed learning communities, which are particularly important creating a social network for students at urban and commuter campuses. Service learning and related forms of community involvement also are widely considered educationally purposeful activities. These programs and practices are activities that institutions can put in place at relatively little additional cost and measure their impact over time on student success.

## 4. Discussion and Conclusion

Earning a bachelor's degree is linked to long-term cognitive, social, and economic benefits to individuals, benefits that are passed on to future generations, enhancing the quality of life of the families of college-educated persons, the communities in which they live, and the larger society. Whereas college was once considered an option for a relatively small percentage of the adult population, this is no longer the case. Indeed, the majority of an age cohort needs some form of postsecondary education to live and work productively in a rapidly changing, information-based economy. For this reason, various groups have put forward scores of policy recommendations for how policymakers, states, postsecondary institutions, students, families, and community agencies can work together to enhance student success and educational attainment. An array of educational policies, student characteristics, institutional conditions, and other factors are associated with student success in college.

Taken together, the propositions represent the building blocks of a theory of student success and point to a series of complementary policies, programs, and Students' Affairs practices that promise to enhance the performance and educational attainment of all students.

The identified issues above that flow from the propositions must be adapted to fit an institution's educational mission, its students' characteristics, and its campus culture. They must also be aligned with key elements in the external environment, such as local community, state, and regional economic conditions, needs, and priorities. Equally important, the selected interventions should be demonstrably effective for the setting and student populations to be served and implemented at a reasonably high level of quality. Even then, it is important to recognize that postsecondary institutions are limited in what they can do to help underprepared students overcome deficiencies in their educational preparation and other risk factors. This article close by suggesting topics for research with the potential to improve students' chances for postsecondary success and to increase the educational effectiveness of postsecondary institutions.

As this review demonstrates, many of the factors that facilitate and inhibit earning a bachelor's degree. To a lesser degree, we also know some of the more promising interventions that—if implemented effectively to reach large numbers of students—promise to increase this number. There is certainly much more to learn about these and related matters as demonstrated by the list of unanswered questions just presented.

Colleges and universities are limited in terms of what they can do to encourage student success. An institution of higher education cannot change the lineage of its students. Campus cultures do not change easily or willingly. Too many long-held beliefs and standard operating practices are tightly woven into an institution's ethos and embedded in the psyche of faculty leaders and senior administrators, some of which may be counterproductive. That said, most institutions can do far more than they are doing at present to implement interventions that will change the way students approach college and what they do after they arrive.

The real question is whether we have the will to more consistently use what we know to be promising policies and effective educational practices in order to increase the odds that more students get ready, get in, and get through.

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