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Student Engagement

A Key to Student Success

FOR DECADES, the college graduation rate has hovered around 50% (Astin, 1975; Braxton, 2000; Pascarella & Terenzini, 1991; Tinto, 1993). Until the 1970s, graduation rates were calculated on a four-year metric. Today the standard denominator is six years, which acknowledges the college-going patterns of contemporary undergraduate students, many of whom attend college part time. Nearly one out of five four-year institutions graduates fewer than one-third of its first-time, full-time, degree-seeking first-year students within six years (Carey, 2004). Even if baccalaureate completion estimates are low, as some claim (Adelman, 2004), everyone agrees that persistence and educational attainment rates, as well as the quality of student learning, must improve if postsecondary education is to meet the needs of our nation and our world. Indeed, as we write, the House subcommittee drafting the reauthorization legislation for the Higher Education Act has included language requiring colleges and universities to report degree completion rates for certificates and degrees for students who start at the institution or who transfer to it. Although not everyone agrees as to the most appropriate way to compute graduation rates, it is clear that increasing persistence and degree completion is a high priority for many institutions. The best predictors of whether a student will graduate or not are academic preparation and motivation (Adelman, 2004; Pascarella & Terenzini, 1991). Thus, the surest

way to increase the number of "successful" students—those who persist, benefit in desired ways from their college experiences, are satisfied with college, and graduate—is to admit only well-prepared, academically talented students (Kuh, 2001a).

The problem with this approach is obvious. More people, from a wider, deeper, and more diverse pool of undergraduates, are going to college (Keller, 2001). Moreover, in the coming decade, four-fifths of high school graduates will need some form of postsecondary education to acquire the knowledge, skills, and competencies necessary to address the complex social, economic, and political issues they will face (Kazis, Vargas, & Hoffman, 2004).

Because admitting only the most talented and well-prepared students is neither a solution nor an option, are there other promising approaches to enhancing student success? Decades of research studies on college-impact and persistence suggest a promising area of emphasis: student engagement.

WHY EFFECTIVE EDUCATIONAL PRACTICE MATTERS

What students *do* during college counts more in terms of what they learn and whether they will persist in college than who they are or even where they go to college. That is, the voluminous research on college student development shows that the time and energy students devote to educationally purposeful activities is the single best predictor of their learning and personal development (Astin, 1993; Pascarella & Terenzini, 1991; Pace, 1980). Certain institutional practices are known to lead to high levels of student engagement (Astin, 1991; Chickering & Reisser, 1993; Kuh, Schuh, Whitt, & Associates, 1991; Pascarella & Terenzini, 1991). Perhaps the best-known set of engagement indicators is the "Seven Principles for Good Practice in Undergraduate Education" (Chickering & Gamson, 1987). These principles include student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning. Also important to student learning are institutional environments that are perceived by students as inclusive and affirming and where expectations for performance are clearly communicated and set at reasonably high levels

(Education Commission of the States, 1995; Kuh, 2001b; Kuh et al., 1991; Pascarella, 2001).

All these factors and conditions are positively related to student satisfaction, learning and development on a variety of dimensions, and persistence (Astin, 1984, 1985, 1993; Bruffee, 1993; Goodsell, Maher, & Tinto, 1992; Johnson, Johnson, & Smith, 1991; McKeachie, Pintrich, Lin, & Smith, 1986; Pascarella & Terenzini, 1991; Pike, 1993; Sorcinelli, 1991). Thus, educationally effective colleges and universities—those that add value—channel students' energies toward appropriate activities and engage them at a high level in these activities (Education Commission of the States, 1995; Study Group on the Conditions of Excellence in American Higher Education, 1984).

In sum, student engagement has two key components that contribute to student success. The first is the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success. The second is the ways the institution allocates resources and organizes learning opportunities and services to induce students to participate in and benefit from such activities. What the institution does to foster student success is of particular interest, as those are practices over which a college or university has some direct influence. That is, if faculty and administrators use principles of good practice to arrange the curriculum and other aspects of the college experience, students would ostensibly put forth more effort. Students would write more papers, read more books, meet more frequently with faculty and peers, and use information technology appropriately, all of which would result in greater gains in such areas as critical thinking, problem solving, effective communication, and responsible citizenship.

Many colleges claim to provide high-quality learning environments for their students. As evidence, schools point to educationally enriching opportunities they make available, such as honors programs, cocurricular leadership development programs, and collaboration with faculty members on a research project. Too often, however, such experiences are products of serendipity or efforts on the part of students themselves—the first component of engagement. Moreover, for every student who has such an experience, there are others who do not connect in meaningful ways with

their teachers and their peers, or take advantage of learning opportunities. As a result, many students leave school prematurely, or put so little effort into their learning that they fall short of benefiting from college to the extent they should.

Are low levels of engagement by many students inevitable? Or can institutions fashion policies, programs, and practices that encourage students to participate in educationally purposeful activities—so that a greater number of students may achieve their potential?

In the for-profit sector, a time-honored approach to improving effectiveness is identifying and adapting the practices of high-performing organizations. If we can identify colleges and universities that "add value" to their students' experiences, might we be able to learn from them ways to create powerful learning environments for all students? These questions led us to the study we describe next.

DOCUMENTING EFFECTIVE EDUCATIONAL PRACTICE (DEEP)

The research team set out to identify colleges and universities that perform well in two areas: student engagement and graduation rates. First, we used a regression model to identify baccalaureate-granting institutions that had higher-than-predicted scores on the five clusters of effective educational practice used by the National Survey of Student Engagement (NSSE). The clusters are level of academic challenge, active and collaborative learning, student interaction with faculty members, enriching educational experiences, and supportive campus environment (see Exhibit 1.1). Many research studies show that participating in activities related to these clusters is linked with desired outcomes of college. We used a second regression model to determine the predicted graduation rates of these schools, and compared those rates with their actual six-year graduation rate.

Both regression models took into account student characteristics and institutional features such as size, selectivity, and location. Thus, "higher-than-predicted" means that the institutions generally performed better than they were expected to, given their student and institutional characteristics (Appendix A). More information about the prediction

Exhibit 1.1. Summary of the NSSE Clusters of Effective Education Practice.

Level of Academic Challenge

Challenging intellectual and creative work is central to student learning and collegiate quality. A number of questions from NSSE's instrument, *The College Student Report,* correspond to three integral components of academic challenge. Several questions represent the nature and amount of assigned academic work, some reflect the complexity of cognitive tasks presented to students, and several others ask about the standards faculty members use to evaluate student performance. Specifically these questions are related to

- Preparing for class (studying, reading, writing, rehearsing)
- Reading and writing
- Using higher-order thinking skills
- Working harder than students thought they could to meet an instructor's standards
- An institutional environment that emphasizes studying and academic work

Active and Collaborative Learning

Students learn more when they are intensely involved in their education and have opportunities to think about and apply what they are learning in different settings. And when students collaborate with others in solving problems or mastering difficult material, they acquire valuable skills that prepare them to deal with the messy, unscripted problems they will encounter daily during and after college. Survey questions that contribute to this cluster include

- Asking questions in class or contributing to class discussions
- Making class presentations
- Working with other students on projects during class
- Working with classmates outside of class to prepare class assignments
- Tutoring or teaching other students
- Participating in community-based projects as part of a regular course
- Discussing ideas from readings or classes with others

(*Continued*)

Exhibit 1.1. Summary of the NSSE Clusters of Effective Education Practice. (*Continued*)

Student Interactions with Faculty Members

In general, the more contact students have with their teachers the better. Working with a professor on a research project or serving with faculty members on a college committee or community organization lets students see first-hand how experts identify and solve practical problems. Through such interactions teachers become role models, mentors, and guides for continuous, lifelong learning. Questions in this cluster include

- Discussing grades or assignments with an instructor
- Talking about career plans with a faculty member or advisor
- Discussing ideas from readings or classes with faculty members outside of class
- Working with faculty members on activities other than coursework (committees, orientation, student-life activities, and so forth)
- Getting prompt feedback on academic performance
- Working with a faculty member on a research project

Enriching Educational Experiences

Educationally effective colleges and universities offer many different opportunities inside and outside the classroom that complement the goals of the academic program. One of the most important is exposure to diversity, from which students learn valuable things about themselves and gain an appreciation for other cultures. Technology is increasingly being used to facilitate the learning process and, when done appropriately, can increase collaboration between peers and instructors, which actively engages students in their learning. Other valuable educational experiences include internships, community service, and senior capstone courses that provide students with opportunities to synthesize, integrate, and apply their knowledge. As a result, learning is deeper, more meaningful, and ultimately more useful because what students know becomes a part of who they are. Questions from the survey representing these kinds of experiences include

- Talking with students with different religious beliefs, political opinions, or values
- Talking with students of a different race or ethnicity

Exhibit 1.1. (*Continued*)

- An institutional climate that encourages contact among students from different economic, social, and racial or ethnic backgrounds
- Using electronic technology to discuss or complete assignments
- Participating in:
  - Internships or field experiences
  - Community service or volunteer work
  - Foreign language coursework
  - Study abroad
  - Independent study or self-designed major
  - Cocurricular activities
  - A culminating senior experience

Supportive Campus Environment

Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relations among different groups on campus. Survey questions contributing to this cluster describe a campus environment that

- Helps students succeed academically
- Helps students cope with nonacademic responsibilities (work, family, and so forth)
- Helps students thrive socially
- Promotes good relations between students and their peers
- Promotes good relations between students and faculty members
- Promotes good relations between students and administrative staff

models used to identify the institutions in this study is available at (http://education.indiana.edu/~nsse/nsse_institute/deep_project/student_success/research_methods.htm).

Higher-than-predicted levels of engagement and graduation represent something meaningful beyond what students bring to college. Arguably, at such colleges and universities students are taking advantage of the opportunities the institutions provide for their learning. In addition, the institutions themselves are presumed to be doing something that encourages students to take part in effective, educationally purposeful activities.

The 20 institutions in this study are among a larger number that met the criteria for higher-than-predicted student engagement and graduation. They are not necessarily the "most engaging" institutions in the country, nor do they necessarily have the "highest" graduation rates. Nevertheless, they are performing at a level that is better than expected, taking into account a variety of factors.

We selected this particular group of colleges and universities in part to represent the diversity of baccalaureate-granting institutions. Nine are private; 11 are public. Some are large research-intensive universities; others focus exclusively on undergraduate education. Some are residential; others enroll substantial numbers of commuting and part-time students. One has fewer than 700 undergraduate students (Sweet Briar College), whereas others enroll more than 20,000 (University of Kansas, University of Michigan). Two are historically black colleges and universities (Fayetteville State University and Winston-Salem State University). Two are Hispanic-serving institutions—California State University at Monterey Bay (CSUMB) and the University of Texas at El Paso (UTEP). Two are women's colleges (Alverno and Sweet Briar). One is a men's college (Wabash).

At all but a few, the range of student ability and academic preparation is substantial. While standardized test scores place the University of Michigan and Miami University among the most selective public universities in the country, other institutions, such as Fayetteville State University and UTEP, provide educational access to many students marginally prepared for college-level work. The private liberal arts colleges in the study practice selective admissions to varying degrees.

Commuter and part-time students are numerous at some DEEP colleges, such as UTEP, CSUMB, and George Mason. Others, such as Macalester, Sweet Briar, University of Michigan, and Wabash, enroll almost an entirely residential, full-time student body. Miami, Wofford, Gonzaga, and George Mason University are among the top 10 universities in proportion of students who study abroad during college.

The DEEP institutions are diverse in mission, selectivity, size, control, location, and student characteristics (see Table 1.1). Thus, other colleges and universities will be able to identify philosophical underpinnings and

Table 1.1. DEEP Schools

Institution	Year Founded	Institutional Type	Tuition in-state (out-of-state)	Student-Faculty Ratio	Total Full-Time Undergrad Population	Part-Time Students	Transfer Students
Alverno College	1887	Private women's college	$12,150	13:1	907	94%	51%
California State University Monterey Bay	1994	Public Hispanic-serving university	$1,815 ($9,195)	19:1	1,791	11%	15%
The Evergreen State University	1967	Public liberal arts college	$3,097 ($10,837)	20:1	3,901	14%	56%
Fayetteville State University	1867	Public historically black university	$1,770 ($9,692)	20:1	3,126	22%	31%
George Mason University	1957	Public research university	$3,792 ($12,696)	15:1	15,312	29%	50–60%

(*Continued*)

Table 1.1. DEEP Schools (*Continued*)

Institution	Year Founded	Institutional Type	Tuition in-state (out-of-state)	Student-Faculty Ratio	Total Full-Time Undergrad Population	Part-Time Students	Transfer Students
Gonzaga University	1887	Private Jesuit university	$19,400	13:1	3,485	6.2%	11%
Longwood University	1839	Public master's university	$4,226 ($9,946)	19:1	3,440	4%	5%
Macalester College	1874	Private liberal arts college	$22,608	10:1	1,773	4%	4%
Miami University	1809	Public research university	$7,666 ($16,390)	17:1	14,720	3%	2%
Sewanee: University of the South	1857	Private liberal arts college	$22,370	10:1	1,308	1.5%*	3.2%
Sweet Briar College	1901	Private women's college	$18,010	10:1	682	8%	3%
University of Kansas	1864	Public research university	$2,333 ($9,260)	15:1	17,475	11%	7.2%

University of Maine at Farmington	1863	Public liberal arts university	$3,990 ($9,750)	16:1	2,000	16%*	25%
University of Michigan	1817	Public research university	$7,340 ($22,932)	10:1	23,063	6%	19.3%
University of Texas at El Paso	1913	Public Hispanic-serving university	$2,208 ($8,000)	20:1	10,013	37%	10%
Ursinus College	1869	Private liberal arts college	$26,200	12:1	1,310	1%	2.4%
Wabash College	1832	Private men's liberal arts college	$19,837	10:1	853	1%	1.75%
Wheaton College (MA)	1834	Private liberal arts college	$23,140	13:1	1,478	1%	2.4%
Winston-Salem State University	1892	Public historically black university	$1,168 ($9,039)	16:1	2,320	20%	7.6%
Wofford College	1854	Public liberal arts college	$18,515	14:1	1,082	2%	2%

These data are reported for the 2002–2003 academic year, when the data collection for this project began.

*From *Barron's Profiles of American Colleges* (25th ed., 2003).

educational policies and practices that they can adapt in order to enhance their educational effectiveness.

The primary purpose of this project was to discover what a diverse set of institutions does to promote student success so other colleges and universities that aspire to enhance the quality of the undergraduate experience might learn from their example. As we began the study, however, we did not assume these colleges were aware of the reasons for their effectiveness; indeed, there are disadvantages to being successful without knowing why. In *Good to Great,* a study of organizations that attained and then sustained a level of superlative performance for at least 15 years, Collins (2001) warned that knowing what good firms have in common with others is not nearly as important as knowing what distinguishes them from others. Not knowing what contributes to exceptional performance makes an institution vulnerable to losing over time what made it successful in the first place. Thus, a secondary purpose of the study was to help strong-performing institutions better understand what they do that has the desired effects.

Toward these ends, the DEEP research team conducted two multiple-day visits to each of the 20 campuses. We reviewed countless documents and Web sites prior to, during, and after the site visits. We visited more than 50 classrooms and laboratories, observed faculty and staff meetings, spent more than 1,000 hours on campus, and talked in all with more than 2,700 people—many of them more than once—to learn what these schools do to promote student success.

Appendix A provides more information about the selection processes for these schools and describes our data collection and analysis procedures. Additional details about the project can be found at (http://education.indiana.edu/~nsse/nsse_institute/deep_project/student_success/research_methods.htm).

KEEP IN MIND

- We do not claim that these 20 institutions are the "best" or the "most educationally effective" of the more than 700 four-year colleges and universities that had used NSSE by 2003. At the same time, their performance is noteworthy, and they offer many examples of promising practices that could be adapted and used profitably at other institutions.

• Our examination focused exclusively on four-year colleges and universities. This is because NSSE was designed for use by the four-year sector of colleges and universities. A counterpart survey for two-year colleges, the Community College Survey of Student Engagement, was established in 2003. Though by necessity we could include only four-year colleges and universities that administered NSSE between 2000 and 2002, many of these lessons may well apply to most four-year institutions and are worthy of consideration in two-year institutions and to postbaccalaureate programs as well.

• Because we cannot describe every educationally effective policy and practice employed by the 20 DEEP colleges and universities that warrant attention, we have focused on examples that have potential for use at other institutions.

• Whatever the path each of these 20 institutions followed to achieve effectiveness, each stands confidently, rejecting imitation. Each has its own cultural traditions, history, and motivations for improvement that differ somewhat from the others. In addition, each tailors its own educationally purposeful activities to accommodate the students it attracts. Therefore, we hope readers will adapt and apply relevant lessons from these descriptions to their own institutional context.

Although we emphasize characteristics shared by most of the schools (Chapters Two through Seven), we also occasionally refer to aspects that describe only some. For example, what works at Wabash College, a men's college, might not work for men at coeducational institutions. Also, some institutions enjoy advantages provided by their location and surrounding communities that are not possible to replicate: George Mason University and the greater Washington, D.C. area, the Evergreen State College and the nearby Puget Sound, and the University of Maine at Farmington and the rural, forested landscape.

• Many effective practices we illustrate are familiar. For example, hundreds of colleges and universities offer learning communities, first-year seminars, service learning, or study abroad opportunities. At every institution, some students and faculty members get to know one another quite well. What sets these 20 schools and other educationally effective institutions apart from the majority is *how well* they implement their

programs and practices and the meaningful ways one or many of these initiatives have touched a *large number* of students. To get a sense of the extent to which your college or university approximates what DEEP schools do to promote student success, think about the following as you read about what these institutions do:

- How well do we promote student success?
- How many students do our efforts reach in meaningful ways and what is our evidence for this?
- To what extent are our programs and practices complementary and synergistic, thereby having a greater impact than the sum of each individual initiative?
- To what extent are our initiatives sustainable in terms of financial and human resources?
- What are we doing that is *not* represented among the policies and practices described here, and what evidence justifies doing it?
- What are we not doing that we should? How might we adapt certain policies and practices for our unique context and circumstances?

NO SINGLE BLUEPRINT FOR STUDENT SUCCESS

A final issue to keep in mind is that there are many roads to becoming an educationally engaging institution. These institutions have many similar policies and practices, yet differences exist. Each of the 20 colleges and universities in the study found its own way to educational effectiveness, experimenting with some homegrown ideas and frequently adapting promising practices discovered at other institutions. At some schools—the Evergreen State College, Macalester College, University of Michigan, and Ursinus College—the curriculum is the focal point for promoting student success. Gonzaga University, Longwood University, Miami University, and University of Maine at Farmington (UMF) use out-of-class activities to enhance student learning by connecting students in productive

ways to their studies and to the institution. Sometimes a convergence of external forces such as changing accreditation standards and an authentic desire to improve student learning move schools to assess systematically aspects of the student experience and institutional performance; Alverno College and California State University at Monterey Bay (CSUMB) are examples. At some schools, such as UMF, University of Texas at El Paso, Fayetteville State, and George Mason, visionary leaders pointed the way. At others—CSUMB, Evergreen State, Michigan, Sewanee, Sweet Briar, and Wabash—a salient founding mission and strong campus culture are touchstones for student success. At all DEEP schools, a unique combination of external and internal factors worked together to crystallize and support an institutionwide focus on student success. No blueprint exists to reproduce what they do, or how, in another setting.

The absence of such a blueprint and the fact that many roads lead to student success are, in fact, good news for those who desire to enhance student learning and engagement at their own institutions. Many of the programs, policies, and practices at DEEP schools are potentially transportable to any college or university. As you read what we found, consider how these examples might be adapted to address the educational needs of your students and to fit the mission, people, and cultures of your institution.