ISSUE BRIEF

Supporting First-Generation College Students Through Classroom-Based Practices

A REPORT BY THE INSTITUTE FOR HIGHER EDUCATION POLICY

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Acknowledgments

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About Philanthropy at Walmart

Walmart and the Walmart Foundation are proud to support initiatives that are helping people live better around the globe. In May 2010, Walmart and its Foundation made a historic pledge of $2 billion through 2015 to fight hunger in the U.S. The Walmart Foundation also supports education, workforce development, environmental sustainability, and health and wellness initiatives. To learn more, visitwww.walmartfoundation.org.

Introduction

A postsecondary degree is increasingly necessary for social and financial stability and success. The benefits of a college degree are particularly relevant for historically underserved students, such as first-generation, low-income, and racial/ethnic minority students, given America's commitment to economic and social mobility.

Despite representing nearly a third of the national undergraduate population (U.S. Department of Education 2008), first-generation college students—those whose parents did not attend postsecondary education—are an important but often hidden population.[1] They are not always easy to identify on campus or in the community at large. Although there have been some efforts to target this population in the past—for example, through the federal TRIO programs—support for first-generation students generally has come through broader initiatives aimed at low-income or otherwise disadvantaged students. Recently, however, some higher education leaders have pushed to raise the profile of first-generation students through collective efforts geared toward greater postsecondary participation and success.

First-generation college students tend to be less informed about the processes of preparing for and applying to college. The issues of insufficient "college knowledge" combined with the typical barriers faced by other underserved students—family and/or work obligations, low financial resources, and academic preparation, to name a few—make first-generation students a critical but complicated population to serve without new and innovative approaches. It is therefore imperative that programs, services, and tools be developed for first-generation students to ease their transition to and through college.

[1] The term "first-generation student" may also be used to refer to students whose parents did not earn a degree.

The benefits of improving the educational attainment of first-generation students are important not only for individual students and society as a whole, but also for the institutions where they enroll. High retention rates are often related to other student success measures and institutional outcomes such as graduation and loan default rates. Institutions that achieve strong student performance outcomes benefit from access to federal and state funds, autonomy and flexibility in disseminating financial aid and other services to students, and positive visibility among the general public. Thus, institutions that devote time and target resources to better support at-risk students stand a better chance of achieving optimal results around institutional and student success goals.

From an institutional perspective, investments in first-generation student success require a paradigmatic and cultural shift around institutional responsibility and capacity as aligned with first-generation student academic needs and desired performance outcomes. Effective institutional initiatives that support first-generation student success tend to include a series of strategies—including academic and social support structures as well as effective classroom practices—that support a more blended academic and social environment. Such efforts are not easy to create and implement, given the characteristic divides across institutional departments and divisions. Strengthening institutional capacity to better serve first-generation students requires the willingness and ability of institutions to realign campus practices to focus on a cohesive and common objective related to student academic success.

One key institutional segment that serves large proportions of first-generation students is Minority-Serving Institutions (MSIs). These institutions, which comprise Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Tribal Colleges and Universities (TCUs), have a legacy of providing increased access to some of the nation's underserved students and often have innovative practices and strategies to support stronger student success (Harmon 2012). Their work with first-generation students is an important component to achieve these broader educational and societal goals.

This report, which was commissioned as part of the Institute for Higher Education Policy's Walmart Minority Student Success Initiative, seeks to highlight how specific institutional policies and faculty-driven, classroom-based practices at MSIs can change in an effort to better support the academic and social success of first-generation students. **(SEE BOX 1)**

The report is structured in the following sections:

- A brief summary of first-generation students as defined in literature and national data;
- An overview of existing programs and resources that support first-generation students; and
- A thematic breakdown of promising practices for improving first-generation student success, supported by examples from participating institutions.

Through institutional examples, this report provides a road map for MSIs and other institutions hoping to enhance institutional capacity to better serve first-generation students. The success of this population is imperative to achieving overall gains in strengthening global competitiveness and national goals around postsecondary completion.

BOX 1: Walmart Minority Student Success Initiative

Launched in 2008, the Walmart Minority Student Success Initiative is a three-year program designed to help select Minority-Serving Institutions (MSIs) build their capacity to serve first-generation students. MSIs—Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutes (HSIs), and Tribal Colleges and Universities (TCUs)—represent more than a third of degree-granting institutions. MSIs historically enroll a disproportionate number of underserved student populations, likely because many MSIs support more open admissions policies and tend to enroll more students from the communities where they are located (Li and Carroll 2007). About 42 percent of students enrolled at MSIs are first-generation, as opposed to 33 percent of students enrolled at predominantly White institutions (U.S. Department of Education 2008).[2]

Through a competitive award process, 30 MSIs were each awarded a $100,000 capacity-building grant to implement strategic practices and processes to help first-generation students of color achieve academic success. The initiative is designed to help MSIs identify problems unique to their first-generation students and to assist in the development of faculty-driven, classroom-based strategies that foster increased student achievement. The 30 institutions include a mix of public and private, two- and four-year institutions across the country and serve as a proportionate representation of MSIs. Awards were split across two cohorts of 15 MSIs:

COHORT 1

Bennett College for Women (HBCU)
California State University-Fresno (HSI)
Claflin University (HBCU)
Colorado State University-Pueblo (HSI)
Florida International University (HSI)
LaGuardia Community College (HSI)
Mount St Mary's College (HSI)
Navajo Technical College (TCU)
Norfolk State University (HBCU)
Northwest Indian College (TCU)
Salish Kootenai College (TCU)
Spelman College (HBCU)
Tennessee State University (HBCU)
University of the District of Columbia (HBCU)
University of the Incarnate Word (HSI)

COHORT 2

Aaniiih Nakoda College* (TCU)
Adams State College (HSI)
Bloomfield College (HBCU)
Bowie State University (HBCU)
Coppin State University (HBCU)
Delaware State University (HBCU)
El Camino College (HSI)
Hampton University (HBCU)
Leech Lake Tribal College (TCU)
New Jersey City University (HSI)
United Tribes Technical College (TCU)
University of Houston Downtown (HSI)
University of New Mexico (HSI)
Valencia College (HSI)
Winston Salem State University

Together, these institutions comprise a unique subset of campuses that worked intentionally and intensively to better serve their first-generation students. Projects represent a range of interventions and strategies. Their stories are embedded throughout this report in hopes of providing practical and replicable approaches for other institutions—MSIs and as well as other institutions—to learn from and integrate into their own first-generation student success efforts.

* Aaniih Nakoda College was previously called Fort Belknap College.

[2] These figures include only HBCUs and HSIs given the small sample size for TCUs.

First-Generation Students and College-Going

Even before they set foot on a college campus, first-generation students must often overcome many disadvantages when applying for admission to college. These students—and parents, relatives, and peers who have never experienced college—lack knowledge of how things work. This may play out in a number of ways:

- Students may not get the help necessary to complete college admission applications as well as financial aid forms. This strengthens the need for college and career counselors (Gibbons and Shoffner 2004), but at many underresourced high schools, the counselors do not have the right information or are overburdened with large student/counselor ratios.[3]
- First-generation students appear to perceive the college experience differently (Gibbons and Shoffner 2004), primarily as a way to get a good job. They are more likely to want to go to a school close to home (Inman and Mayes 1999) given social and family obligations.
- First-generation students are less likely to live on campus, less engaged with faculty members, work more hours off campus, and are generally less satisfied with the campus environment (Kuh and Pike 2005; Richardson and Skinner 1992; Terenzini et al. 1996).
- The lack of college knowledge also may be seen in first-generation students' lack of understanding of the on-campus resources available to support them, such as student services and financial aid offices.

The first-generation students who do manage to enroll in college are more likely than their peers to be racial/ethnic minorities, financially independent, have dependents, and come from low-income backgrounds (Horn and Nunez 2000; Inman and Mayes 1999; U.S. Department of Education 2008).These students also tend to enroll part-time, work more than 40 hours a week, rely more heavily on federal Pell grants, and attend public two-year or for-profit institutions, although first-generation students are represented within every institutional type (U.S. Department of Education 2008; Nunez and Cuccaro-Alamin 1998). More first-generation students are less academically prepared, requiring remedial or developmental courses (Choy 2001; U.S. Department of Education 2008; Tym et al. 2004). In fact, about 55 percent of first-generation students took remedial courses during their college years (Chen 2005). All of these characteristics are shown to be negatively correlated with college enrollment and persistence to a postsecondary degree.

For instance, according to the most recent national data, first-generation students were much less likely to have earned a four-year degree after six years compared to their peers. First-generation students were also more likely to have left college without returning than non-first-generation students (U.S. Department of Education 2009).[4] In one study, holding all institutional types constant, low-income, first-generation students were four times more likely to leave college after their first year (Engle and Tinto 2008). Even for first-generation students who persist, completion rates are no better and the time to completion is considerably longer than their non-first-generation peers. For example, after six years, 43 percent of low-income, first-generation students failed to complete and likely left higher education altogether (Engle and Tinto 2008).

[3] The National Association of Colleges and Admissions Counselors collects data on students counselor ratios by state where there is wide variation but an average of about 400 students per counselor for public high schools: http://www.nacacnet.org/issues-advocacy/MemberAction/Documents/StudentCounselorRatios0910.pdf. The American School Counselor Association has recommended a school counselor-to-student ratio of 1 to 250. Schools with relatively low resources often have ratios well higher than that.

[4] Among students beginning college in 2003–04, 15 percent of first-generation students earned a bachelor's degree after six years, compared to 45 percent of students whose parent(s) had a bachelor's degree (U.S. Department of Education 2009).

What is available to help first-generation students?

Recognizing these specific barriers, governments, community-based organizations, and nonprofit groups have tried to target various forms of assistance to help these students. In fact, resources available to first-generation students have broadened considerably over the years. Early on, the programmatic pursuits consisted of after-school "college nights" that provided information on the admissions process or weekend programs such as College Goal Sunday that help parents and students prepare their financial aid applications. A number of Web sites, including the U.S. Department of Education's college.gov, provide resources to help students understand the college admissions process. Today there are also more structured interventions, such as summer bridge programs, tutoring, and financial literacy seminars for first-generation students to help ease their transition to college and beyond (Coles, Jager-Hyman, and Savitz-Romer 2009).

Many of these efforts are social supports—strategies that foster and strengthen social networks, school connectedness, self-confidence, and academic motivation. Others are academic supports—strategies to build and promote students' mastery of subject matter and skill development through deliberate activities or structures (Coles et al. 2009).[5] These strategies complement each other, and both are necessary to encourage students to pursue an academically rigorous path to a degree or credential.

Unfortunately, these efforts have several limitations, the first being that there are many more first-generation students than can be served by these programs.[6] In addition, other considerations include:

- Not all of these programs are specific to first-generation students;
- Such opportunities and information do not always reach these students early enough, if at all; and
- Some programs focus on helping students overcome the hurdle of accessing college but fall short on providing additional guidance once students are enrolled.

Despite these limitations, ongoing academic and social supports before and after enrollment are integral to first-generation student success. As noted by Kuh et al. (2006), academic and social support programs can help students adjust to college and provide clear paths to degree attainment. Nonetheless, while these supports may be necessary, they are not sufficient. It is important to integrate faculty-driven and classroom-based practices as well. In this respect, colleges and universities are uniquely positioned to better support first-generation student success.

Although many institutions host programs and initiatives that foster student-faculty interaction through academic and social support activities, much more can be done to enhance students' academic progress. For institutions that serve large numbers of first-generation students, such as MSIs, this imperative is especially urgent. Although true for any institution serving first-generation students, at MSIs this clarion call has sparked a number of innovative efforts to better support first-generation and other underserved populations. A few are described in the next section.

[5] According to Coles et al. (2009), academic and social supports can be thought of in several themes: Emotional support such as counseling; instrumental support such as tutoring, workshops on study skills or financial literacy, and summer transition programs; informational support such as freshman orientation, college planning, and financial aid information; appraisal support such as assessments of student progress, data systems to monitor student progress, and placement tests; and structural support such as culturally relevant practices, learning centers, first-year college programs, and learning communities. The authors argue that these supports should not be viewed separately, but on a continuum of academic and social support that can meet academic rigor.

[6] For example, according to the Council for Opportunity in Education, the federal TRIO programs which serve low-income and first-generation students through academic tutoring, counseling, mentoring, financial guidance, and other supports from sixth grade to college graduation—can only serve 11 percent of eligible students.

Institutional Investments in First-Generation Success

Like other college students, when first-generation college students earn a postsecondary credential they take their first step toward greater financial success and upward social mobility. Institutions that enroll a high percentage of first-generation college students have begun to reexamine how they serve these students. A multipronged approach is needed in which institutions can play a role that exploits their strengths and complements the efforts of other stakeholders. Conversations around supporting first-generation students need to begin with the classroom, which is a perspective often overlooked. This brief is premised on the notion that what takes place in the classroom is central to the college experience.

The educational outcomes of first-generation students can be improved through a variety of academic practices that work together to create a more engaging learning environment to foster stronger student performance, given the right conditions and academic supports. These classroom-based practices are reflected in some existing research focused on student success[7] and in the experiences of institutions at the campus level. They move beyond simple student-faculty contact outside the classroom to a holistic effort to ground effective pedagogical practices at the core of student success efforts.

Four broad institution-based themes help capture the kinds of policies and practices that can contribute substantially to first-generation student success:

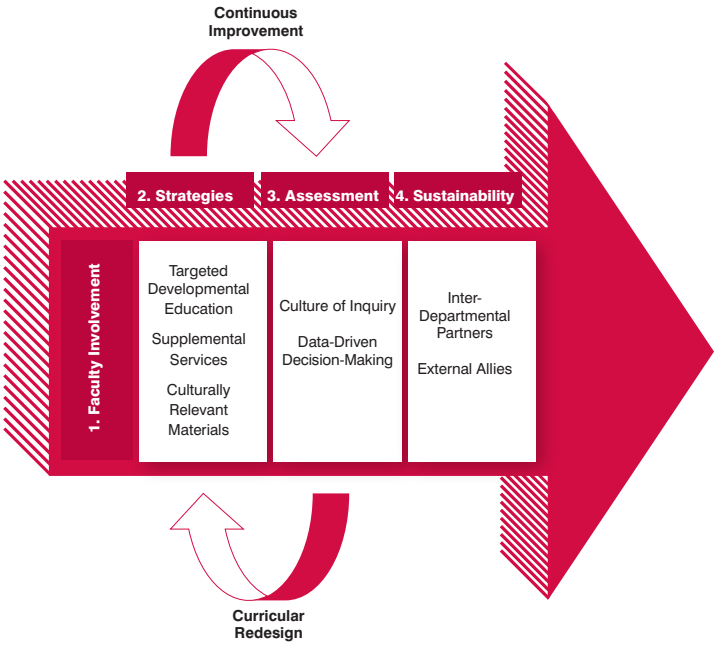
- Faculty are key allies and can serve as powerful change agents for bridging departmental divides and generating opportunities for professional development and networks,
- Curricular and pedagogical reforms are imperative to creating a more engaging and dynamic classroom environment for first-generation student success,
- Evidence-based and measured approaches to student success create a culture of ongoing inquiry and support that lends itself to innovation and creativity to better support first-generation students, and
- Partnerships and external allies provide numerous benefits for long-term and sustained project success.

These four themes describe the sequential and often reciprocating nature of this work that ultimately seeks to improve the prospects of completion for first-generation students. The symbiotic relationships connecting these themes together are depicted in **FIGURE 1**.

[7] For example, Umbach and Wawrzynski (2005) found that the educational context created by faculty influenced student learning. Other studies in this area have recognized effective educational practices of teaching and learning (Chickering and Gamson 1991). The research in general often focuses on academic and social supports, as well as student engagement, but there is recognition that effective classroom-based practices are an important factor (Coles et al. 2006; Cuseo 2003; Kuh et al 2006; Lotkowski, Robbins, and Noeth 2004; Terenzini et al 1996). These pedagogical approaches tend to encourage things like active/collaborative learning, peer teaching, supplemental instruction, and a variety of instructional methods (Kuh et al. 2006).

FIGURE 1

Relationship of the Four Key Stages of Successful Classroom-Based Strategies



It all starts with the integration of faculty (shown as the first stage in **FIGURE 1**) as the principal agent to academically engage first-generation students through classroom-based approaches, as well as seek willing partners, including faculty in other departments, in order to enrich the instructional process. Once such collaborators have been identified and are "ready to serve," interventions tailored to the unique needs of first-generation students can be developed (second stage). Some examples of programs and services are shown in italics under the "strategies" heading. Although such programs differ in their goals and activities, they all benefit from an assessment framework that collects and uses appropriate measures to monitor student success and pedagogies with first-generation students in mind (third stage). This process of continual, data-driven improvement is a hallmark of successful programs and necessary for long-term sustainability (fourth stage). Also key to sustaining efforts are fortifying interdepartmental partners as well as being active and able to discuss program components and successes to external communities.

Although others have recognized these four stages as contributing factors to students' academic success, this brief seeks to combine them in a single, unified plan. The Minority-Serving Institutions (MSIs) that participated in the Walmart Minority Student Success Initiative all focused on one or more of these stages as they developed or expanded programs focusing on first-generation students. Their successes provide a blueprint for other institutions that are trying to better support their first-generation students through faculty-driven, classroom-based efforts. In the next section, these themes are elaborated and examples from MSIs are given to illustrate how aspects can be applied in practice.[8]

Faculty as Key Allies

Faculty contributions and support are paramount to successful academically driven initiatives that target first-generation student achievement. Faculty members are students' primary point of contact in the classroom, and they can provide a powerful connection between in-class and out-of-class learning experiences for students new to college life. However, often faculty are not provided with the tools they need to understand and engage first-generation students in meaningful ways. Not surprisingly, introducing or formalizing new roles and activities may be met with some initial resistance. Institutions that succeed in enabling faculty to assume stronger leadership in first-generation student success initiatives typically do so as a product of specific strategies and opportunities. Each strategy works to achieve the same goal of securing faculty support and transforming their roles into stronger champions for first-generation student success.

[8] The information in the examples is drawn from institutional progress reports and other materials from the Walmart Minority Student Success Initiative.

FACULTY AS KEY ALLIES		
STRATEGY	**HOW**	**RESULT**
Identifying existing or new opportunities for faculty to work collaboratively on teaching and supporting first-generation students.	• Required professional development sessions. • Scholarly and collaborative faculty learning communities.	• Unique inter- and intradisciplinary exchanges. • Greater cohesion around student success goals and learning outcomes.
Formalizing and reinforcing changes to faculty roles as related to student success.	• Explicit language to support first-generation students in faculty position descriptions. • Formal recognition as part of performance evaluations and incentives.	• Clearer expectations of faculty roles inside and outside of the classroom. • Stronger interest and ownership in participating in first-generation student-related success initiatives and programs.
Engaging faculty in disciplines and departments where first-generation students traditionally struggle.	• Identify high-enrollment, high-failure courses. • Allow faculty in specific departments determine the types of academic and social supports needed.	• Stronger student performance and pass rates. • Greater faculty ownership of creating a more engaging classroom environment.

(1) Identifying existing or new opportunities for faculty to work collaboratively on teaching and supporting first-generation students.
Institutions may employ a number of strategies to engage and position faculty into stronger leadership roles in shaping the academic and social success of first-generation students. Ongoing professional development is one way in which institutions have been successful in securing faculty support. Such an opportunity supports continuous learning and inquiry that allows faculty to assume leadership positions in academically driven initiatives. Professional forums also function as a venue to heighten awareness and knowledge of issues specific to an institution's first-generation student population, offering new insight for faculty whose backgrounds may not reflect those of their students.

For many institutions, finding the time and opportunity to enable faculty from across disciplines to engage in conversation and professional development is close to impossible. Institutions successful in this pursuit often engage a number of different departments and require such efforts as part of broader professional development and training. Existing initiatives or programs

are easiest to establish and embed first-generation-specific topics. This approach of working with current faculty development programs and opportunities has been instrumental to a number of MSIs that secured faculty support. For example:

At ***Norfolk State University***, faculty assumes a unique role in the Communities of Inquiry program, drawing upon existing faculty development opportunities and the scholarly direction this opportunity affords. The program provides faculty with an established forum to work collaboratively to discuss, share, and design innovative pedagogical and assessment practices to increase student achievement. Faculty members from across disciplines and departments develop and publish issue briefs related to research on effective pedagogical practices. For example, faculty have authored a series of reports on exploring self-regulated learning for their first-generation students, enabling them to become more reflective and proactive about their instructional styles and how classroom practice can inform student learning and engagement, particularly for student self-regulated learning. Disseminated campus wide, these reports serve as a public validation for working with first-generation students and the strategic importance of finding continual opportunities to invest in, educate, and retain such students.

Valencia College's efforts are designed to improve the experience and education of first-generation students through the specific objectives of implementing a co-curricular component. The effort focuses on revising the curriculum in reading, writing, speech, and grammar while adding and expanding English for Academic Purposes (EAP) learning communities to allow students to combine language-learning skills in classes, infusing thematic content (e.g., biology, psychology, history) into EAP courses. It also includes designing new program exit exam materials as well as refining placement measures for EAP students. The partnership of faculty across departments, particularly between EAP and general education faculty, has helped infuse general education content and vocabulary into EAP courses, enabling students to receive material to reinforce core curriculum while also refining their English-language skills. Students in the learning community program also feel a stronger sense of community among their peers and instructors and describe their classroom experiences as more authentic and community oriented. Key to the program's success has been the willingness of general education and EAP faculty to work collaboratively on creating a more aligned curriculum. This work was due in part to increased professional development offerings for both general education and EAP divisions.

University of the Incarnate Word's FOCUS on the Future project centers on a faculty learning community that engages faculty who work with second-year first-generation students—which sets the program apart—including providing ongoing training and development for faculty in the second year. Faculty in the learning community meet regularly to explore effective instructional strategies, discuss shared readings related to first-generation student needs, and exchange ideas and suggestions on modified course outlines to enhance student learning. As a product of the faculty learning community model, the campus piloted a rising-sophomore success course that integrates lessons learned and is designed to help retain and ease the transition of sophomore first-generation students. Additionally, the FOCUS on the Future community has made inroads of working collaboratively with the institution's first-year experience faculty community. The

school's ultimate goal for the project was to promote persistence to graduation, and there was an increase in both retention (11 percent) and persistence from second to third year (13 percent) for students in the program.

(2) Formalizing and reinforcing changes to faculty roles as related to student success.
Faculty play a number of roles on campus. From instructor to researcher to mentor, they often juggle multiple obligations and manage various expectations. When it comes to successful faculty-driven projects, a number of institutions have formalized or identified strategies to reinforce specific changes that target first-generation student success. Many institutions successful in this effort worked to slowly implement formalized role definitions and/or allowed such changes to develop organically and unintentionally. An example is given below:

> In the ***LaGuardia Community College's*** Adult and Continuing Education (ACE) division, a large percentage of students are first-generation. The New Generation Scholars program works to ease the transition of first-generation students to the credit-bearing side of the institution. As part of this process, a paradigmatic shift in how credit-bearing faculty view and work with ACE's faculty has occurred. In the past, both divisions often struggled to identify common ground and a cohesive approach to supporting the same students. Faculty members from the credit side were invited to serve as guest instructors for New Generation Scholar courses, allowing them to dispel previously held misconceptions about the ability of students from the ACE division and to see firsthand the unique needs and strengths of these students. At the same time, the guest lecturing allowed students in the ACE division to become exposed to faculty they may eventually have as instructors. The administration now recognizes faculty participation in guest instruction as an incentive—participating faculty receive acknowledgment for this service toward promotion. Recognition from the administration has helped formalize the need for the program and its support for first-generation students coming from the ACE division. Since the beginning of the New Generations Scholars project, ACE's Division of Adult and Continuing Education has seen a marked increase in the number of students who transition from non-credit to credit studies.

(3) Engaging faculty in disciplines and departments where first-generation students traditionally struggle.
As mentioned previously, first-generation students are more likely to require remediation than their non-first-generation peers (Chen 2005). Given this likelihood, it is not surprising that a number of first-generation students tend to struggle in specific disciplines, particularly math and English. It is important that institutions looking to improve first-generation student success work closely with faculty from departments where these students tend to struggle academically. This requires getting a sense of what current departmental standards and processes are and how they may be revised, reworked, or altogether reformed to better support student success. Approaching this work requires institutions to be cautious not to impose such efforts but rather to work collaboratively with faculty. Offering faculty the flexibility and opportunity to think creatively around assessment, learning outcomes, and development within the context of departmental expectations has proven to be an effective approach. For example:

> At ***Bloomfield College***, developmental math has been a major challenge for first-generation students. The college has hoped to strengthen students' abilities to gain requisite skills to succeed in Algebra and to complete 18 credits in the first academic year. After a task force was created, the math department faculty reclaimed responsibility for developmental math coursework, leading to changes to the philos-

ophy, approach, and expectations for delivering math education. As a result of faculty collaboration, the college created a revised developmental math curriculum that aligns developmental standards with the general education program. The newly revised program includes higher pass rates for students in developmental courses; the higher pass rates contributed to stronger student progression that surpassed initial expectations. The fall-to-spring retention rate was 77 percent, a 6 percent increase over the retention rate for 2008. In addition, over 80 percent of students passed the first of two developmental math courses, and over 40 percent of pilot students will have completed the second developmental math course, as well as their college-level math course by the end of the freshman year. The pilot has been so successful that full implementation will occur for the 2011–2012 academic year.

One of ***Florida International University's*** goals has been to improve passing rates and student learning in gateway mathematics courses, which are critical to student retention and graduation. To start, the institution gave math faculty an opportunity to test a curricular change in mathematics that has been very effective with the physics department; namely, the integration of lecture and in-class, peer-led study groups. A team of faculty and staff developed and implemented extended-length introductory, gateway math courses (college Algebra) that incorporated in-class, peer-led study groups, created ongoing training of peer learning assistants under the supervision of math faculty members, and supported opportunities for faculty to experiment with pedagogical strategies and meetings to discuss best practices in the classroom. This effort transformed previously high-failure courses by implementing an effective intervention (peer learning assistants) that has been effective in increasing student retention, particularly in the science, technology, engineering, and mathematics fields. Students in math sections with peer learning assistants had pass rates 15 to 40 percentage points higher than students in nonpeer learning assistant sections. Further, the use of peer learning assistants deepened the relationships between faculty and students, and students in courses with integrated peer support were significantly more likely to take a math course the semester after they passed their integrated course than were students who had enrolled in and passed a regular math section, suggesting that they had had a good experience in their class and were determined to continue their math sequence. The math department has now developed a new major (math education) because the peer learning assistant program has been a major recruitment tool and conduit of interest for this particular degree track.

Curricular and Pedagogical Redesign

Instructional styles and course content set the foundation for a student's classroom experience. A number of studies (Chickering and Gamson 1991; Kuh et al. 2006) highlight promising classroom-based practices to increase student achievement; learning communities, supplemental instruction, and applied research are just a few examples of techniques that enhance student success. But how do successful evidence-based strategies work to support first-generation student success? The answer requires institutions to examine current barriers and challenges in the curriculum for first-generation students. Whether it means overhauling a first-year experience program or reexamining developmental and remedial education, successful institutions looking to enhance the curriculum and learning outcomes of first-generation students target crucial moments within the first year of college.

Institutions successful with curricular and pedagogical redesign are strategic in their approach and target reform efforts by way of campus-wide opportunities and resources to validate the need for such work. The following examples include some successful approaches institutions have used to raise the standard on student success by way of reforming pedagogical and curricular practices.

CURRICULAR AND PEDAGOGICAL REDESIGN		
STRATEGY	**HOW**	**RESULT**
Redesigning developmental and/or general education as a means to advance first-generation students to discipline-specific courses.	• Introduce high-impact practices into developmental/general education delivery. • Consider new tools and assessment measures to refine student placement and intake.	• Renewed and/or reformed approaches to the delivery of remedial and general education. • Stronger student performance and pass rates.
Embedding supplemental services such as instructors and peer tutors.	• Train peer learning facilitators/instructors to serve as additional classroom mentors. • Embed supplemental instruction in specific high-failure courses.	• Stronger student pass rates. • Stronger faculty-student relationships. • A more accountable and engaging classroom environment.
Introducing and including culturally relevant material into classroom practices.	• Integrate specific cultural characteristics from the local community and students. • Establish forums for cultural exchanges and awareness.	• More inclusive and attuned classroom practices to engage students. • More engaging and applied curriculum.

(1) Redesigning developmental and/or general education as a means to advance first-generation students to discipline-specific courses.

As noted previously, developmental courses are often the Achilles heel for first-generation and other underserved students in their first year. An important first step for institutions looking to increase the performance of first-generation students is to address the fact that many come to college underprepared. Institutions successful in developmental education have tailored their intake process, assessments, and delivery methods to the unique academic and social needs of their students, first-generation and non-first-generation alike. They seek opportunities to place students in courses that reflect their learning needs more accurately, shorten the time it takes students to move through the remedial coursework, and embed developmental coursework alongside credit-bearing and student success courses and support structures to aid success. For instance:

> ***United Tribes Technical College's*** Creating Supportive and Timely Enrollment Pathways pilot program places an intentional fast track on student seat time in remedial coursework. The year-round, faculty-led initiative is designed to expedite the process for students in need of preparatory work. Program strategies that make this work effective include offering midsemester start dates with a limited maximum wait time of six to eight weeks; admitting students in cohorts that function as learning communities; and collaborating through ongoing exchanges among remedial instructors, general education instructors, and discipline-specific advisors. These exchanges allowed faculty members from across both developmental and general education to hold more candid, progressive conversations that led to a critical reevaluation of the efficacy of previous efforts to support first-generation success. The program benefited from an initial cohort research study to understand the feasibility of the program's creation and design. As a result of the pilot research study, preparatory courses are now mandatory for students who score below an institutional placement exam, and new faculty have been hired specifically for developmental courses.

(2) Embedding supplemental services such as instruction and peer tutors.

Supplemental resources and instruction such as classroom-based peer mentoring programs and structured tutoring opportunities can help institutions to create a more engaging and active classroom experience for their students. A number of institutions have identified key courses and stages where supplemental instruction is beneficial for first-generation students. For example:

> Rather than an exclusively lecture-based format, the ***University of New Mexico*** created an undergraduate peer-learning facilitator (PLF) model whereby peer assistants were placed in classrooms to help students and instructors with in-class assignments. Faculty worked closely with peer mentors to develop relevant supports for students at risk of dropping out or failing. For specific disciplines, such as intermediate and college Algebra, the institution created a working group of instructors, peer facilitators, and other staff who meet regularly. The working group constructed model weekly training units with associated outcomes and recommendations for in-class and online homework learning activities. The result was the creation of more active learning strategies that replaced pure lecture while still aligning with departmental standards and requisites. Feedback from faculty indicates that students feel more engaged, and data show stronger retention for students who were exposed to these courses. For example, faculty who made course revisions following the course-design institute and/or used PLFs

for the first time had higher than average student-success percentages. Further, surveys completed by 1,133 of approximately 1,250 students enrolled in PLF-supported classrooms indicate that 83 percent of respondents felt that PLFs assisted their learning and 85 percent felt that they learned more in the collaborative-learning classrooms enabled by the PLFs than they would otherwise; 88 percent stated that it was important to have PLFs in their classes.

Adams State University's Emerging Scholars program draws on faculty across four academic departments (English, math, sociology, and developmental education) to lead staggered, interdisciplinary first-generation student-focused learning communities to support those prepared for college-level work and those needing remedial education. A team of faculty members created opportunities for faculty development and enhanced data capacity for the institution's supplemental instruction (SI) program in an effort to institutionalize the latter as an effective intervention for first-generation students. In total, 19 SI sections served nearly 100 students throughout the academic year. Of these students, more than half passed with a "C" or better in the courses. One of the more significant outcomes of their work is the increasing presence and use of SI as a resource across disciplines and courses. Eleven courses with high drop, fail, or withdraw rates now offer SI and faculty have noted that students in these courses are exhibiting higher engagement and increased participation in discussions. Further, some departments now include SI in departmental language and information as an explicit resource for students. This highlights how SI is becoming formally recognized and institutionalized into the broader institutional culture.

(3) Introducing and including culturally relevant material into classroom practices.

For first-generation students, the inclusion of culturally relevant material and supports can strengthen retention, as these efforts build confidence and familiarity throughout the college and classroom experience. This inclusion is important not only for the students being served but also for faculty and staff, who may have different background contexts from their students. Although implementing these types of changes is often difficult, faculty professional development opportunities and occasions to better understand the environmental and social contexts of first-generation students can lead to a more supportive classroom environment that works to retain and engage student learners. Further, culturally relevant practices promote more cohesive approaches to working with first-generation students and often bridge student experiences inside and outside of the classroom.

Although these efforts are grounded in the mission and context of each institution, the examples below point to how important it is for all institutions to take into account the different historical and cultural traditions of students, staff, and faculty. They also illustrate some of the benefits and challenges of this type of work.

Mount St. Mary's College boasts a student body that is nearly half Hispanic, but the faculty is almost exclusively white. The college has worked to create a series of professional development workshops—open to faculty, staff, and students—to provide cultural sensitivity training in an effort to create a more relevant classroom experience. The workshops feature external speakers who are experts in diversity and race issues. Faculty who attended these sessions currently receive incentives toward their professional development, given that recruiting faculty has sometimes been a

challenge. However, the institution anticipates that this will change over time, and some departments and divisions have already been receptive to the content. This has been particularly true of the nursing program, which recognized a need for development of stronger communications skills and bedside manner. Recent data reveal that there is a heightened sense of community on campus; for example, transfer students from the two-year program report feeling a greater sense of connectedness.

One of the focal points for ***Northwest Indian College*** was to develop culturally relevant retention strategies for its students, first-generation and non-first-generation alike. The college has grounded all program goals in an indigenous perspective that honors the students from 100-plus tribes and brings more cohesion. In addition to adding explicit language on first-generation student success into the institution's mission statement, the institution tailored and expanded the successful indigenous Family Education Model (FEM). The institution created a subcommittee of faculty, staff, and administrators for the FEM, which was charged with considering more ways to integrate effective practices into their academic and social offerings. The committee identified specific core indigenous values to include in assessment and evaluation practice, enhanced the institution's capacity to create more sensitive and responsive evaluation for its population, integrated Western evaluation practices when appropriate, and considered how to balance indigenous knowledge with Western practices. For example, a number of courses include group work on a regular basis to enhance peer networking, more time in the classroom is dedicated to developing rapport and a sense of community with instructors and peers, and anecdotal examples and personal testimonies of students and instructors were included as icebreakers in the classroom to enhance communications styles and skills. Finally, the college has embedded FEM components into established programs and opportunities such as orientation, the institution's Pow-Wow and faculty professional development. Students report that they have learned valuable skills such communications, fundraising, organization, leadership, time management, and budgeting.

Evidence-Based Solutions and Holistic Approaches to Success

Many MSIs and other institutions do not have a strong understanding of the number of first-generation students on campus who may be at risk. When used appropriately, data can be a powerful tool to help direct and target policies in an effort to better serve first-generation students. For successful campuses, the use of data is imperative to garnering widespread support for efforts targeting first-generation students and often strengthens the development and sustainability of programs that promote first-generation student success.

Developing the capacity to collect the appropriate evidence is not always easy. The use of national assessments along with institutional surveys can help move institutional initiatives forward. When considering assessment within the context of

EVIDENCE-BASED SOLUTIONS AND HOLISTIC APPROACHES TO SUCCESS

STRATEGY	HOW	RESULT
Identifying the number of first-generation students as a means to corroborate institutional efforts.	• Create methods via admissions and orientation to ascertain specific number of first-generation students upon enrollment.	• More targeted approach to the types of first-generation students.
Using qualitative and quantitative approaches to understanding and supporting first-generation students.	• Use national and institutional-created data sets to track student outcomes. • Use interviews and focus groups to enhance anecdotal understanding.	• Stronger programmatic design and institutionalization efforts.
Utilizing traditional research modeling and design to track effective practices and first-generation students progression.	• Use mixed-method approaches and comparisons to other student groups.	• Stronger analysis and evidence of what works.
Thinking beyond standard measures of success.	• Examine nonstandard measures of student learning (noncognitive, self-regulation, etc.).	• More holistic approach to engagement and learning.

academic reform, common variables fall into two general categories: (1) Student success, including grade performance, engagement, and noncognitive variables; and (2) institutional outcomes such as retention and completion. Institutions that measure both successfully are better able to secure ownership and support for their initiatives.

(1) Identifying the number of first-generation students as a means to corroborate institutional efforts.
Often the first step is to develop the capacity to identify the number of first-generation students enrolled. In an effort to corroborate the need for first-generation-focused programs, institutions first need to identify this population. Understanding the number of first-generation students and associated characteristics, such as enrollment status, dependent status, and age, to name a few, helps institutions better position interventions and supports. For most institutions, this means refining their tools for gathering demographic data—such as admissions forms—to identify first-generation students on campus or leveraging secondary data sources, such as TRIO student data, to extrapolate information about their students. The more precise institutions are in identifying first-generation students, the better positioned they are to analyze the learning experience and outcomes of this distinct population and provide targeted interventions. For example:

> ***Coppin State University*** was able to identify that most of its first-generation students were adult learners. The creation of the Center for Adult Learning, which provides streamlined academic and social support services for adult students, was therefore an important step in ensuring the success of the university's first-generation student body. By identifying the sheer number of first-generation students, the center was able to employ effective opportunities to better serve them, such as the establishment of evening learning communities to provide academic offerings to adult, first-generation students who work during the day as well as flexible hours of operation for the center; hours were identified by an assessment of the days and times higher volumes of adult learners were present on campus. The institution has implemented ongoing needs assessment in an effort to ensure that appropriate, practical, and effective interventions are in place. The needs assessment is conducted in-house and has helped support the overarching goal of promoting a more learner-centered environment.

(2) Using qualitative and quantitative approaches to understanding and supporting first-generation students.
Beyond identifying first-generation students, successful initiatives require a holistic approach to supporting the unique needs of this population. Institutions that are effective in developing the capacity to better serve first-generation students employ a mix of assessment approaches, both quantitative and qualitative, that can explore various aspects of students' academic progress and the barriers they may be facing in their coursework, on-campus interactions, accessing resources, and other factors. Through focus groups, surveys, interviews, and the creation of institutional metrics and tools, institutions can disseminate information specific to their first-generation students that makes programmatic efforts more meaningful and effective. For example:

> ***Salish Kootenai College*** opened an entirely new department, Developmental Studies, which provides a number of data-driven services such as GED preparation, placement testing for math and English, retention programming for

students in developmental studies, coordination of scheduling and teaching of developmental studies courses, and coordination of various faculty and staff committees that work on issues related to improving student success rates in developmental education. From the start, the department developed strong assessment tools and revised the intake placement and developmental testing process in an effort to increase the reliability of the placement process and decrease seat time for students. In tandem with the commonly used Test of Adult Basic Education, the institution now has its own internal placing assessment, which was developed by both the math and English departments. The institutional assessment has proven to be valuable in that it places students whose skill level is considered to be on the border between developmental and college-level skills. Staff have found that success rates (defined as passing with a grade of "C" or better) increased for most developmental studies courses. The institution has also used interviews to provide qualitative evidence for the effectiveness of program interventions and the newly formed department.

(3) Utilizing traditional research modeling and design to track effective practices and first-generation student progression.

Implementing a more traditional research approach to program implementation and student success provides for stronger evidence that specific interventions and programs are effective. A substantial body of research illustrates effective pedagogical practices that are particularly helpful for underserved populations and how to best evaluate their implementation. Conducting regular evaluation of activities requires both initial planning and assessment at regular periods, as well as the presence of accurate comparisons. For many institutions, applying a more rigorous approach to developing and implementing specific practices and programs is helpful in securing additional buy-in and a stronger program overall. For example:

***California State University-Fresno*'s** first-year experience (FYE) program has proven to be a strong support for its first-generation students. From its onset, the redesigned FYE program explicitly outlined distinct objectives to increase the success of its first-generation students. Clear targets were identified early on in program development and implementation: To increase persistence by 5 percentage points through formative objectives, experiences, student engagement, and assignments as well as to increase student credit accrual to 18 credits per year. In addition, an assessment framework included a control group of first-generation students not placed in the program's learning community model. Data are collected and reported across multiple groups to provide a heightened understanding of the institution's interventions. In fact, first-generation students receiving program supports surpassed the institution's initial targets, which legitimized the revised FYE's effectiveness and role in educating first-generation students.

***New Jersey City University*'s** Language and Literacy Partnership program is designed to facilitate team teaching in an effort to enhance the university's first-year experience academic learning communities program. As part of their efforts, a team of eight faculty members from the English, English as a Second Language education, and writing center divisions embarked on a research study of best practices in reading and writing pedagogy. A strong partnership with the institutional research division led to a multifaceted

assessment plan to include a student engagement survey, faculty and student focus groups, end-of-semester faculty reports, and a range of quantitative retention and academic success measures. The conceptualization and use of data in this way has encouraged faculty participating in the program to create more faculty development events to promote more thorough, data-driven teaching and practices. Preliminary analysis based on student perception and engagement surveys indicates that 53 percent of FYE students reported that they "applied concepts from or knowledge they learned in class to other areas of life" in fall 2010, increasing to 63 percent in the spring. More than three-quarters of FYE students reported that they had "thought about sentence structure, word-choice, or organization as they were writing," climbing to 83 percent the following semester.

(4) Thinking beyond standard measures of success.
How learning is conceived and measured often changes at the institutional level, given differences in missions, student characteristics, and other factors. As a result, it can be helpful to explore alternate measures, such as noncognitive variables that try to capture self-efficacy, self-confidence, and engagement. Often, it is also important to create opportunities to enhance self-regulated learning and personal growth. These opportunities are particularly important for first-generation students who do not have family member experiences to draw on to shape their learning goals and their understanding of how to leverage others on campus—other students, faculty, and student support staff—to help them meet these goals. Such opportunities can occur outside the classroom in many cases, but can be more effective when tied to classroom-based student learning. By measuring and analyzing noncognitive student success variables, institutions can refine the types of learning supports in place to help first-generation students articulate and fulfill their academic goals. For example:

Claflin University launched the Learning in Communities for Success project, which enrolls first-generation students in sections of three linked courses: English, math, and freshman orientation. The linked courses produce collaborative learning and encourage shared responsibility for learning among students and faculty. The program aims to increase retention and provide a venue for nurturing personal and intellectual growth of students through academic, social, civic, and realms. To date, the program has enabled first-generation students at the institution to establish a sense of community in their first year. Through a series of activities inside and outside of the classroom, students learn to step out of their comfort zones and overcome negative self-talk and set goals throughout their college experience. For example, students participate in faculty-led success skills seminars in addition to ongoing seminars related to leadership development and social enrichment. The institution's efforts to better support first-generation students hinge heavily on the campuswide effort to offer resources related to leadership training, career awareness, internship opportunities, and networking activities with alumni and community constituents. Recent data indicate that in the learning community clustered courses, 100 percent of students completed freshman orientation, 90 percent completed English 101 and Math 111 successfully, and 17 percent maintained cumulative GPA between 3.0 and 4.0.

Building Partnerships and External Allies To Highlight Student Success

For efforts to improve first-generation student success to have a lasting impact, institutions must change the way they talk about their work. The campus community must make its commitment to ensuring first-generation student success more visible to internal audiences and integrate promising practices across departments and divisions. At the same time, recognition within the broader community is instrumental to securing broader institutional support and may actually elevate campus initiatives in the community. In many successful institutional projects, community partnerships and support often complement efforts in a way that provides practical and applied examples, creating a more engaging, active learning environment.

BUILDING PARTNERSHIPS AND EXTERNAL ALLIES TO HIGHLIGHT STUDENT SUCCESS		
STRATEGY	**HOW**	**RESULT**
Institutionalizing the recognition of first-generation student success on campus.	• Public and institutional presence centered on the needs of first-generation students (Web-based, mission statement, etc.).	• Broad recognition and acceptance of first-generation students, internally and externally.
Establishing classroom activities that relate to the larger community.	• Classroom and learning themes related to community or global issues.	• More applied student learning and understanding of material. • New and stronger connections with community organizations.
Disseminating program highlights on and beyond the campus.	• Participating in campus meetings and presenting at national education-related conferences to garner interest among peer institutions. • Conducting interviews with media outlets to disseminate project results to broader audience.	• Stronger external acknowledgment of project work and support. • More peer institution connections and exchanges that build on project capacity and scalability.

(1) Institutionalizing the recognition of first-generation student success on campus.
For many institutions, successful first-generation initiatives are embedded fully into the institutional mission or are prominent features of key student experiences. First-generation status does not have to be a detriment to success. Some colleges have been able to reverse the stigma affiliated with first-generation status and create an environment that celebrates and supports the presence of these students and their trajectory in higher education. A good example is provided below.

> The ***University of Houston Downtown*** sought to improve the academic progress and long-term academic success of first-generation students during the first year of college through "high-impact" educational experiences inside and outside the classroom. The program integrates interventions in specific first-year courses, particularly in foundational areas of math, reading, and writing. Program components include linked courses targeting developmental education, increased classroom-based academic support for reading-intensive college-level courses, a structured student success mentoring program providing supplemental instruction, and enhanced faculty development and faculty-student interaction. As a result of the program, faculty members from across departments and disciplines have experienced the value of working together and of introducing high-impact practices into the classroom. Overall, linking developmental coursework with discipline-specific courses has helped faculty change their perceptions of developmental education students and recognize that these students are hungry for intellectually rich material and capable of handling more academically rigorous concepts and materials. In addition, the campus climate has changed so positively toward the roles and needs of first-generation students that portions of the institution's Web site are now devoted to providing testimonies from current students, faculty members, and even the institution's president—who are all first-generation students—to reinforce the image of success. Recent data indicate that, on average, students participating in the program completed more credit hours and had a higher GPA than nonparticipants. For example, 62 percent of participating students completed 15 credit hours within two semesters, as opposed to 47 percent of students who were not participating.

(2) Establishing classroom activities that relate to the larger community.
Often, first-generation students benefit from tangible activities that can illustrate what is currently being taught in the classroom. These activities may come in the form of connecting course materials to a specific theme, taking students out of the classroom and into the field to apply new concepts, or asking students to create research projects that relate to the principles taught in class. In this way, students can take advantage of the experiences faculty has to offer as well as directly engage with the surrounding community, fostering longer-term ties. For example:

> ***Delaware State University's*** Project Advance is a learning community situated in the department of English, arts, and sciences. The project is part of a broader effort to create integrative learning communities for the general education curriculum by linking general education courses in English with American history and critical thinking. The signature to Delaware's work is in its ability to apply classroom material to local and national issues. Students participate in a field experience to Cambridge, Md., including a historical tour of

famous moments that took place in Cambridge during the pinnacle of the civil rights movement. Students in the learning community are able to establish stronger connections to their classroom activities using the information presented throughout the tour—one student was even motivated to reach out and connect with Cambridge's mayoral office for an apprenticeship. The institution has been strategic in its selection of classroom material for the learning community, and identifying teachable moments within close proximity has been an invaluable teaching resource and tool for students to become more engaged.

Navajo Technical College emphasizes a strong undergraduate research component. Students in the program work intensively on projects that improve conditions for the Navajo Tech community. In its first year, the program created undergraduate research opportunities related to the development of a solar power oven. The solar oven project provides the Navajo community an alternative, greener energy system to prepare food. Since then, the program has grown to include multiple research projects across various disciplines, including greenhouse development, refrigeration and cooling systems, and auto mechanics. The institution has been strategic in targeting research-intensive projects that were not only relevant to national issues of energy use but, more important, for the direct benefits such work affords the local tribe and residents. As a result of the research projects, some students have received national recognition and represented the institution and state in national competitions. Further, the intensive nature of the research projects has established deeper more meaningful connections for students with faculty and the local Navajo community.

(3) Disseminating program highlights on and beyond the campus.

Programs that are successful in increasing the success of first-generation students may have lessons for other departments or institutions that are striving to support this population. Even institutions that have been successful in getting faculty, administrators, and other groups on campus to support in to programs that support first-generation students need to find ways to sustain that work. In addition, it is useful to cultivate support from external audiences, whether through targeted media, local events on campus, or presentations at regional and national conferences. For example:

> ***University of The District of Columbia's*** Scholars on a Roll (SOAR4) program is a learning community designed to foster stronger student retention, advancement, and performance. As part of the learning community experience, students are required to complete a capstone project that is part of Myrtilla Minor Professional Development Academy—a retention tool and opportunity that the campus has supported for a few years to showcase student research. Preliminary data suggest that SOAR4 students have higher semester-to-semester return rates than comparable non-SOAR4 students, and students who participated in the SOAR4 Capstone Showcase have a higher GPA in the semester of the showcase than in the following semester when they did not participate in the showcase. Key faculty members involved in the learning community now serve on campus-wide committees dedicated to exploring a campus-wide model for integrating similar programs in other departments as part of the broader general education curriculum and requirements.

El Camino College's Faculty Inquiry Partnership Program has proved to be an invaluable resource for faculty to connect, network, and enhance their instructional performance. Faculty pairs across disciplines work together to explore specific pedagogical techniques to enhance first-generation student learning. The training helped create consensus around student learning and built a stronger network of faculty allies that work across departments and disciplines to advance the success of students. As part of the program, faculty pairs were filmed to provide testimony on the effectiveness of the training program and the subsequent benefits. Further sustaining the program and serving as a resource for current and new faculty members is the program's Web site.[9] From the Web site, interested faculty members may download videos featuring faculty members who have completed the trainings and receive firsthand feedback on how the trainings have successfully materialized into classroom practice. Student surveys have asked respondents to quantify the effectiveness of the strategies; the feedback overwhelmingly confirmed that the goals of the program were being met.

[9] See http://www.elcamino.edu/administration/staffdev/fipp/index.asp.

Conclusion

Significantly increasing the number of students who earn postsecondary degrees and credentials is essential to the economic and social fabric of the United States. It is well known that college graduates have a wider range of career opportunities, earn higher salaries, and tend to live longer and healthier lives. However we also know that many students, including those who are first-generation, must contend with factors such as affordability and weak academic preparation that increase the likelihood they will drop out.

Like other underserved populations, first-generation students may need support to start and keep them on their path to success. A number of academic and social supports have proven helpful in cultivating student success, including summer bridge programs, financial literacy seminars, and freshmen orientations. However, these supports are not always sufficient. Institutional policies and practices that include faculty-driven, classroom-based approaches can have a significant effect on retention and graduation rates. Emerging research indicates that high-impact practices involving curricular change and faculty involvement can increase students' academic engagement, thus increasing their chances of staying in college.

This brief offered examples of several high-impact practices from the Walmart Minority Student Success Initiative that can foster student success. They focus on faculty involvement, curricular redesign, evidence-based inquiry, and the development of internal and external partnerships. The institutional examples illustrate some of the innovative work being done to implement and bring to scale practices at these institutions that have ultimately led to success. Further, these institutional practices may be applicable to other institutions attempting to increase the success of first-generation and other students.

This work is not easy. Minority-Serving Institutions (MSIs) in the Walmart Minority Student Success Initiative faced challenges along the way, including the development of support from faculty and other campus stakeholders as well as ideas for how to integrate effective practices into the organization in a sustainable way. However, the benefits have been substantial, both in terms of increasing students' academic progress and in fostering an atmosphere of collaborative learning on campus.

Although these institutional examples are not comprehensive and the final impact of these programs and practices will not be known for a few years, a number of recommendations can already be drawn from this work:

- ***Institutions, now more than ever, need to amplify their capacity to identify and track first-generation students and other unique student populations.*** In many cases, a cultural shift is required to start using data to inform decision-making on campus rather than solely for compliance purposes. However, the first step in any effort is to understand the characteristics and needs of students, so programs can be targeted toward those needs. Institutions that participated in the Walmart Minority Student Success Initiative were intentional in their efforts to identify and track first-generation students. They

also made sure to include and communicate with administrators and other faculty not directly involved with the project about their process and findings. This approach helped strengthen efforts on campus, generated widespread interest and support, and ultimately moved their institution closer to their completion goals.

- ***Engage faculty early in the process and provide continuous support.*** The role of faculty in the lives of college students and in their ultimate success is essential. Substantial research indicates that faculty interaction in and out of the classroom is a key factor in helping first-generation and other underserved students persist to a degree. In the Walmart Minority Student Success Initiative, faculty played key roles as mentors to students and also to one another. Faculty interaction and collaboration within and across disciplines not only helped to improve their understanding of the unique needs of first-generation students, but promoted long-term working relationships that will hopefully foster the overall sustainability of their campus projects.

- ***Embrace curricular change as a way to improve student success.*** Many of the Walmart Minority Student Success Initiative institutions demonstrated a willingness to make significant changes to their curricula based on what the data revealed about their students' needs. Changing institutional curricula will take time and a tremendous amount of effort and support from key stakeholders on campus. But the reward is intentional, evidence-based curricula designed to support the teaching and learning process and to meet the specific needs of first-generation and other underserved student populations.

- ***Institutions also must ensure that promising practices are visible both internally and externally.*** Marketing effective practices and techniques serves a dual purpose of sustaining efforts that work to retain underserved students and providing positive examples of how the higher education system, and in particular faculty, are taking leaps to better support student success. MSIs and other institutions can benefit from hearing one another's success stories and should use one another as models and resources for enhancing current work and planning future initiatives.

In today's world of limited resources, campus leaders, funders, and policymakers are focused on "scaling up" promising programs to take advantage of good work and make sure it has a future impact. The types of faculty-driven, classroom-based practices described in this brief illustrate potential ways to improve first-generation student success. These examples that may be used as a framework by other institutions wishing to develop or scale up their own campus initiatives.

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