INTRODUCTION

The institutions of higher education involved in the BEAMS initiative share several key characteristics, none more important than their mission-driven emphasis on providing a high-quality education to minority and low-income students. Although the American model of higher education has evolved over time to meet emerging challenges and priorities, one area in which higher education struggles to maintain pace is in meeting the needs of a rapidly changing student body. As the student population has changed from homogeneity to an expansive diversity, institutions nationwide are struggling with the task of effectively engaging the twenty-first century student. For many campuses, the “typical” student is likely to be a student commuting to school, juggling academics with work or family obligations, and lacking a strong support network of peers and mentors. In many cases, these students are academically unprepared for the rigors of higher education. With this portrait of the twenty-first-century student in mind, this brief provides an overview of technology-driven strategies that BEAMS institutions are adopting to provide a more accessible and supportive campus environment for students.

This practice brief is one of a series highlighting key practices undertaken by some of the many successful BEAMS schools during the project’s five years of data collection and action plan implementation. These practice briefs accompany a monograph that details the process BEAMS institutions used to craft data-driven action plans and to implement those plans to improve student success. The purpose of the practice brief series is to outline effective practices that can be replicated in postsecondary institutions interested in pursuing data-based change and increasing student engagement, learning, and success. This particular brief demonstrates how leveraging technology in campus change initiatives can facilitate action plan implementation and ultimately result in increased student engagement and success.

Leaving the work of the institutions profiled in this brief was born of several common inquiries. BEAMS team members asked about the quality of their institutional engagement, working to investigate how students perceived and described their experience interacting with fellow students, faculty, and other campus constituents. Second, leaders examined the availability of information or institutional services to students who may not be on campus during regular business hours. Within these two dynamics, each institution adopted strategies that built on institutional strengths while filling key gaps in serving twenty-first-century students. For these institutions, the integration of technology into campus change initiatives is bringing about a resolution to both imperatives: (1) providing avenues for high-quality interaction and (2) making services available to students around the clock through a “virtual” extension of their campus.

ABOUT THE BEAMS PROJECT

During 2003–07, the Building Engagement and Attainment for Minority Students (BEAMS) project fostered data-based campus change initiatives at more than 100 four-year Historically Black, Hispanic-Serving, and Tribal colleges and universities to increase student engagement and learning. Each campus made a commitment to analyze the scope and character of its students’ engagement by participating in the National Survey of Student Engagement (NSSE) and to implement well-designed action plans intended to improve student engagement, learning, persistence, and success. The Summer Academy—an annual gathering of representatives from various colleges and universities for collaborative work aimed at increasing access and success in higher education—provided dedicated time for BEAMS teams to identify solutions that could influence institutional and national higher education policy and practices. BEAMS is a partnership between NSSE and the Alliance for Equity in Higher Education, which is managed by the Institute for Higher Education Policy, and is supported by Lumina Foundation for Education.
INSTITUTIONAL EXAMPLES

COPPIN STATE UNIVERSITY
Located in Baltimore, Maryland, Coppin State University (CSU) is an urban Historically Black College and University serving more than 4,500 undergraduate and graduate students. Over the past decade, CSU has been a leader in technology integration in campus life. In 2005, CSU was recognized for its innovative technology use by EDUCAUSE, a national nonprofit association promoting the intelligent use of information technology in higher education. Since then, CSU has continued to leverage technology to improve the quality of a student’s campus and classroom experience.

As part of an institutional focus to improve student retention and success, the CSU BEAMS project focused on the area of instruction. Through BEAMS, CSU sought to improve course-level assessment, with an emphasis on comparing traditional and non-traditional instructional methods. CSU brought a new dimension to instruction when they adopted the Tegrity Campus model, which makes classroom lectures and materials available to students 24 hours a day. Coupled with the institution’s course management software, Tegrity Campus allows faculty to upload audio and video, gives students the ability to scan and share electronic notes, and facilitates communication among students and faculty. CSU’s leadership team is aligning preexisting and new assessment tools to examine the impact of this type of non-traditional instruction on course delivery, student retention, and graduation rates.

By turning a critical eye to the integration of technology in the classroom and in campus life, CSU seeks to understand the impact and importance that technology plays in educating twenty-first-century students. CSU has continued to push the envelope in campus technology by adopting a “technology fluency plan” to ensure that students and faculty are competent in key software programs, have incentives for the integration of technology into curricula, and are exposed to a wealth of technology training and support opportunities. Taken as a whole, these interrelated initiatives express the institution’s ongoing commitment to enhancing student engagement and persistence. As CSU’s BEAMS assessment project continues to develop, its findings very well may have implications for the broader higher education community.

FLORIDA INTERNATIONAL UNIVERSITY
Florida International University (FIU) is one of the nation’s largest Hispanic-Serving Institutions (HSI). Located in the greater Miami area, it serves more than 38,000 students, of which 20,000 are Hispanic. As a multi-campus urban institution, FIU initiated its BEAMS project to raise student satisfaction in two key areas: institutional support and faculty engagement. FIU sought to reshape the campus climate by making information and academic support services more accessible, stimulating faculty-student interaction, and facilitating strong peer-to-peer networks.

Serving a high percentage of commuter students, FIU turned to technology to provide essential student services around the clock. Through BEAMS and U.S. Department of Education Funding, FIU developed the Virtual Student Center (VSC) to meet a number of institutional goals directed at improving the quality of student engagement on campus. Because many of the commuter students are on the campus outside of regular office hours, FIU convened a group of faculty and student leaders to develop an online system that would meet the needs of students virtually. The VSC serves several roles for the campus: a one-stop-shop repository for students to gain 24-hour access to major-specific and department information; a forum for communicating with faculty; a portal for online academic tutoring; and a central hub for students to communicate about academics, transportation, careers, and a number of different topical areas.

Since its launch in 2006, the VSC has drawn more than 13,000 unique visitors to its site. Working diligently to promote the VSC with a wide array of campus constituents, FIU has drawn broad use and support from administrators, faculty, staff, and students. As a result, the VSC has been fully institutionalized by the campus. By aligning the VSC with pre-existing and emerging student support initiatives, it has evolved into a central clearing-house of information and a launching point for effective interaction. Among the many accomplishments of the VSC, the leadership team is extremely proud of the fact that several colleges and universities are designing their own technology initiatives modeled on the student-centric FIU model. The institution hosted a two-day training session in fall 2007 to assist three other BEAMS institutions that were initiating their own campus VSCs. The success of the VSC has encouraged FIU to undertake another campus-wide technology initiative that will further enhance the campus climate for students and faculty.
NEW JERSEY CITY UNIVERSITY

Minutes from New York City, New Jersey City University (NJCU) is an urban HSI with 8,500 undergraduate and graduate students. Within the BEAMS project, the NJCU leadership sought to increase first- to second-year retention rates, with a particular emphasis on students who may be academically underprepared for higher education. To meet this goal, NJCU implemented an Urban Learner Centered Model, which takes into account the unique education and cultural needs of urban minority and low-income students. The model created through BEAMS leveraged and expanded institutional academic support initiatives through technological and traditional means.

NJCU built on past success in providing professional development opportunities to faculty and campus leaders, encouraging student community service and volunteerism, and working with students through a first-year college persistence program based on thematic learning communities. These strategies are supplemented and supported by two technology initiatives. The first initiative is the ongoing development of a Web-based VSC, based on FIU’s model, which provides students with a centralized and coordinated location for information, online support services, and resources for commuter students. Second, the BEAMS initiative introduced an expansion of NJCU’s student early alert system, allowing faculty members and administrators to more effectively identify and intervene on behalf of students at risk of not succeeding. Together, these technology initiatives leverage resources and services to the greater benefit of students and to the improvement of institutional practice.

Although the project at NJCU is still in development, the effective coordination and alignment of campus initiatives, in many respects, represents the essence of the BEAMS initiative: a thorough diagnosis of student needs, expanding promising institutional practices to create a more engaging campus culture, and leveraging new technology assets to aid students, faculty, and administrators.

WESTERN NEW MEXICO UNIVERSITY

Nestled in rural New Mexico, Western New Mexico University (WNMU) is an HSI that serves more than 2,000 undergraduate and graduate students. Campus leaders utilized BEAMS to improve the quality of engagement between students and faculty and to propel the university’s emphasis on collaborative learning. Primarily serving commuter students, WNMU set out to leverage its emerging technology assets to advance high-quality teaching and learning, a more supportive campus climate, and an emphasis on student collaboration and research.

Through BEAMS, WNMU assembled a leadership team to work with information technology (IT) staff, faculty, and students to embark on two major initiatives. First, the BEAMS project utilized the functions of WNMU’s intranet, Mustang Express, to build strong communication networks among students and faculty. Through Mustang Express, the university was able to implement a common communication and e-mail system; create forums for students to communicate and collaborate on academic or nonacademic subjects; strengthen instruction by hosting course materials, assignments, and resources; and facilitate greater interaction between faculty and students. In addition, the university used BEAMS to launch a multidisciplinary, undergraduate academic conference. Serving as a focal point of collaborative learning, students worked with one another and faculty to prepare papers and presentations on a wide array of original research.

For WNMU, the greater emphasis on online tools represented a significant shift in how the campus conducted its business. By working with faculty through large-group and one-on-one training sessions, the BEAMS leadership team secured sufficient buy-in and support for the use of Mustang Express. With an initial focus on incoming freshmen, the leadership team created a critical mass of student participation. As a result, the use of Mustang Express among faculty and students increased from 11 percent in fall 2006 to 78 percent in fall 2007. By aligning with the university’s emphasis on collaborative learning, WNMU created additional learning opportunities for students and improved faculty-student interaction. As a result, the university has fully institutionalized the training around Mustang Express and the undergraduate academic conference.
COMMON CONCEPTS
Technology can serve as a critical bridge for reaching and engaging students, especially commuter students, who may otherwise feel isolated or disconnected from their campus. But the work is certainly fraught with implementation challenges. The following lessons provide insight into the strategies BEAMS institutions adopted to overcome common challenges.

Involving leaders from the top (and the bottom) in the project. Each of the institutions’ success was due in a great part to support they received from senior campus leaders who served as champions for the technology initiatives. However, leadership from the top wasn’t the only predictor of success. Ensuring that the student perspective would help drive the vision and implementation of the projects was a critical factor as well.

To turn a great idea into a successful technology product, have the right people involved. The BEAMS projects reported that having active participation from their IT departments was essential in setting realistic project goals, tempering expectations, and making the project work. Furthermore, by creating a planning and implementation team composed of individuals representing the faculty, administration, student services, IT departments, and students, BEAMS projects were able to leverage the strengths of each team member while mitigating gaps in individual knowledge.

Seek early adopters and provide an abundance of support as new users come on board. Successful BEAMS technology initiatives sought out early adopters in the faculty and student communities to serve as advocates for the project. Providing ample training, demonstrating how to use technology to improve work, and offering ongoing incentives for participation were also key success strategies.

Integrate assessment and evaluation into your strategic plan early. Each of the BEAMS sites was able to use student engagement data to develop a theory of change and to assess the impact of their technology initiatives. Defining what it means to succeed and developing quantitative and qualitative measures to track progress made these projects more effective.

Align your project to the unique mission and long-term goals of your institution. For the BEAMS projects profiled here, success and sustainability was rooted in the projects’ clear alignment with institutional needs and priorities. These projects were focused on the nexus of enriching campus life, strengthening instruction, and improving student retention—the technology was merely a means to that success.

CONCLUSION
Mitigating campus engagement challenges is no easy task. By leveraging technology to improve instruction, strengthen relationships, disseminate critical information, and cultivate social networks, these BEAMS projects demonstrated that it is possible to make substantive improvements in how campuses engage and support students with unique needs. The technology may be new and innovative, but the keys to success were nearly as old as the institutions themselves. Effective intra-institutional collaboration, sound strategic planning, and a resounding emphasis on enlivening the mission of the institution are the engines that empower technology to affect campus change.