





COST-SAVING INNOVATIONS

LESSONS LEARNED FROM THREE CAMPUS MODELS



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CONTENTS

Introduction
Background Research and Project Scoping
Model Development and Advisory Group
Process Challenges
Model Testing and Operation Details
Arizona State University: Online Learning With "Local" Service Delivery
University of Central Oklahoma: Virtual Experiential Learning Activities
University of Texas at San Antonio: Double-Occupancy Residence Hall Opportunity
Shared Principles for Cost-Saving Innovation
Identify and Communicate With Diverse Stakeholders
Conclusion
Acknowledgments

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INTRODUCTION

ollege affordability is a widespread topic of concern for today's students, colleges, and universities. For most students, college costs pose barriers that impact various aspects of their higher education experience. In addition to tuition and fees, students are left to manage major costs of living such as transportation, food, rent, and utilities. Even high-impact educational practices—including service-learning, studying abroad, and internships—may have hidden fees or burdensome opportunity costs for some students. Those who cannot afford to participate in unpaid activities are left out of valuable educational and career-development opportunities and experiences.

Escalating costs have placed greater pressure on institutions to address financial challenges—despite increasingly limited resources. Institutions lean on tuition discounting as a strategy for reducing costs for select students who might not otherwise pay the advertised price of enrollment. Tuition discounting redistributes the revenue brought in from students who pay the full sticker price to subsidize tuition for other students. This price differentiation strategy ("revenue management") is often found in private industries, where companies will charge different prices for the same product or experience based on differences in consumer price sensitivity. Although tuition discounting can help stabilize enrollment in the short term, it is a limited fix for institutions dependent on tuition as a primary revenue stream. The strains on the current business model prompt additional investment in the piloting and assessment of cost-reduction strategies that both maintain or increase enrollment for the institution while reducing cost burdens for students.

In the spirit of innovation, NASPA explored the feasibility of "cost sharing" as a strategy for creating more affordable student pathways. The concept of cost sharing poses this question: What if groups of students could share college expenses, similar to how friends and families pay a shared cell phone plan at cheaper rates than if they paid for service as individuals? Discussion about emerging innovations and implementation led the researchers to focus on three pilot models; each one addresses different areas of savings for groups of students.

Starting in fall 2019 and concluding in April 2020, NASPA's project unfolded in three phases. Phase I involved conducting background desk research and phone and video interviews with more than 30

experts in higher education, including researchers from associations and campus practitioners from areas of student affairs, enrollment management, financial aid, business operations, and special student success programs. During Phase II of the project, NASPA convened a group of six advisory group members twice to discuss possible pilot models, test assumptions, and gather additional context about implementation parameters. Phase III involved the testing and close observation of the three pilot models to identify and document decisions and considerations taken as part of planning and implementation processes. NASPA's engagement with the three pilot models concluded right after institutions were managing a shift to remote operations due to the COVID-19 pandemic. Insights gleaned from this research underscore the withstanding value of innovating and adapting in a rapidly changing environment.

NASPA set out to address four key research questions:

- 1. What is the feasibility of implementing the proposed cost-sharing idea to increase the affordability of tuition and other services for students?
- 2. How are institutions changing business operations to reduce student expenses, and how do approaches differ by expense type (e.g., tuition, fees, housing)?
- 3. What are the key factors for institutions to consider and resources needed to develop, implement, and scale cost-saving innovations?
- 4. How do cost-saving innovations and provision of academic, social, and financial supports impact institutional operations?

BACKGROUND RESEARCH AND PROJECT SCOPING

he following insights and themes reflect the findings from conversations with researchers and campus practitioners from areas of student affairs, enrollment management, financial aid, business operations, and special student success programs.

- Interviewees gave anecdotal evidence suggesting that students and/or families would desire tuition-sharing strategies, but they could not identify any family-plan models currently in place other than sibling discounts.
- If institutions are willing to take a cut in net tuition dollars per student in order to implement cost savings, they need to feel like they could make it up in volume in terms of increasing students.
- Groups of institutions near each other have explored saving money by entering into consortium agreements, allowing students to access resources, courses, or services at any of the schools in the participating network. Such cooperative agreements can help institutions keep administrative costs in check and may

- afford students expanded access to programs; however, this strategy does not provide transparency to how or if costs are reduced for students.
- Models that are open to everyone (i.e., models not necessarily limited to families) can potentially lead to over-discounting in that it's possible that anyone can become a student's "friend." Institutions would have to be careful with defining the parameters around who could get the discount. It's conceivable that the number of students receiving a discount could exceed the threshold needed to sustain an institution's business model.
- If an institution can provide a cost-sharing or cost-reduction option to a large group of students and enrollment increases significantly, then personnel and other resources must likewise increase.
- Institutions may be more amenable to implementing a cost-sharing pilot in the summer term.

MODEL DEVELOPMENT AND ADVISORY GROUP

uilding on the foundational knowledge and insights gathered during Phase I, NASPA engaged with advisory group members to brainstorm and identify models for exploration.

Advisory group members represented a variety of perspectives, bringing with them expertise from different functional areas as well as knowledge of national- and campus-level trends. After exploring the existence and feasibility of cost sharing in higher education, NASPA shifted focus to creative ways to reduce costs for groups of students without necessarily involving student-to-student "sharing" of expenses. The reasoning for adjusting the original concept of cost sharing is summarized in the following sections.

PROCESS CHALLENGES

Because the higher education system is too dissimilar from the cell phone payment market, the cost-sharing concept is difficult to adapt and operationalize at institutions. Several implementation challenges can arise, many of which relate to an institution's inability to guarantee and monitor one-to-one expense sharing among students. For example, it is common for students to exchange textbooks between each other for free or at a nominal cost. While such sharing certainly fits the shared model definition, the practice is not required for all students and would likely considerably decrease bookstore revenue sales if it became formally recognized and officially sanctioned by an institution. Other

institution-initiated efforts to reduce course material expenses, including group purchasing and book rentals, were also reported. Institutions may also face challenges with pairing students and deciding how certain college expenses should be shared among which students. Institutions could find it difficult to protect student privacy and give students the opportunity to opt in or out of the cost-sharing process. Another concern is that unless financial resources are distributed as a scholarship, costs saved or funds given as a result of cost sharing could potentially reduce a student's federal financial aid eligibility.

SCALING LIMITATIONS

Interviews revealed that even if an institution were to identify and implement a cost-sharing opportunity for students, the opportunity for increasing the scale of the solution would be limited. Providing cost-sharing opportunities, especially those based on cutting fees, to too many students could ultimately result in institutional revenue reductions across the board.

By shifting to strategies that fall on a cost-saving and cost-sharing continuum—rather than those that completely meet the project's original definition of cost sharing—NASPA was able to move forward with testing concepts that are feasible to implement at a mix of institutions in a timely way. Given the field's need for greater transparency around the institutional budget process, NASPA selected a lead advisor with decades of experience in analyzing how institutions manage their operations. This lead advisor helped to analyze each model's financial plan and assess budgetary impact.

Key criteria for each model included its ability to

- reduce a specific cost area for students in a new, improved, or creative way;
- apply to similar challenges or opportunities faced by other colleges or universities across the country; and
- target efforts for students who are lowincome, African American, Hispanic/Latinx/a/o, or who are returning adults.

MODEL TESTING AND OPERATION DETAILS

NASPA consulted with the advisory group to review a set of six institutions that had a model that addressed the criteria. In selecting these projects, the

team recognized that many colleges and universities are concerned about access and are engaging in efforts to reduce costs to students. Several of these efforts are in auxiliary services ranging from increasing residence hall utilization during vacation periods (thereby amortizing their costs over others besides students) to negotiating discounts with public transportation providers, to offering opportunities for sharing dining credits. Efforts are also being made, largely by schools in rural areas, to develop more affordable broadband access through local cooperatives. One institution reviewed by the advisory group piloted a partnership with its county's disability services agency to provide shared housing for agency clients and college students. As part of the program, students who live with and serve as mentors for individuals with disabilities are afforded reduced housing costs and work experience relevant to future human services careers.

A few cost-saving efforts were also identified in instructional initiatives. Most common are initiatives involving textbook costs. Although some institutions are focusing on creation and use of open educational resources, others are negotiating bulk purchase pricing for books and materials to help ensure that all students have access to required supplies. In addition, a few colleges are examining options—such as reduced costs based on numbers of credits completed during the preceding fall and spring terms—to encourage students to enroll in the summer term to support timely degree completion.

Following additional review of each model, the research team and lead advisor selected three pilot institutions for the second and third phases of the study. The three institutions, Arizona State University (ASU), University of Central Oklahoma (UCO), and University of Texas at San Antonio (UTSA), were selected based on the focus of the work and the potential for other institutions to try a similar approach under optimal conditions. Each of these institutions aimed to creatively address different areas affecting student affordability, including the

The research team and lead advisor selected three pilot institutions for the second and third phases of the study.

delivery of distance education, pedagogy, and support services.

ASU and UTSA were in the early phases of program implementation when NASPA began engaging with them, while UCO spent the duration of the project planning for and building a pilot program from scratch. Engagement with each institution involved regular check-in calls, quarterly progress updates, and an in-person site visit. The site visits included student focus groups as well as

semi-structured interviews with staff leadership, marketing representatives, and others involved with each project. Hearing from a variety of perspectives and learning about the key decisions made and conditions in place helped the researchers gain a holistic understanding of each model. Drawing from information and analyses shared by each institution, NASPA identified distinct program components and areas of implementation consideration as well as common themes.



ARIZONA STATE UNIVERSITY

ONLINE LEARNING WITH "LOCAL" SERVICE DELIVERY

INSTITUTION PROFILE

is a large, public, research university with multiple locations in the greater Phoenix, Arizona, metropolitan area. ASU's main campus is in downtown Tempe, Arizona; the inaugural ASU Local site is in the heart of downtown Los Angeles, in a small team space (see Figure 1) accessible by bus and subway. In 2002, ASU declared its mission to create a new model of higher education and strategically respond to the needs of students at the local, state, and national levels. The launch of "ASU Local" represents one way in which the institution has been working toward this mission.

PROGRAM MISSION

ASU Local provides cohorts of high school graduates from under-resourced communities in the downtown Los Angeles area with a high-quality and affordable bachelor's degree program experience. ASU Local combines the scalability of an online learning environment with the local face-to-face supports needed to succeed. The program is designed to reach the growing number

of historically under-represented students who lack access to California's public 4-year institutions. ASU Local's hybrid model offers structured in-person programming and services as well as a digitally delivered curriculum designed with the 18- to 24-year-old contingent in mind.

By reducing the capital investment and physical classroom costs that hinder most 4-year public institutions, ASU Local is able to provide quality experiences to low-income and underserved student populations at an affordable price. ASU's Financial Aid and Scholarship Services team has worked to reduce tuition for low-income students through scholarships and other financial aid options. To support on-time completion of a bachelor's degree, instruction at ASU Local is offered year-round. Students must enroll in 12 credits in the fall and spring terms and 6 credits in the summer term.

The affordable price point, flexible schedule, and location of each ASU Local site are meant to appeal to recent high school graduates who are place-bound and have limited time and resources. The goal is to find the repeatable formula that can help other universities utilize online learning capabilities without sacrificing the other critical elements of a university

experience that motivate students to persist in their education and earn their degrees.

PROGRAM TEAM

ASU Local's founding team includes several critical staff members. In the startup phase of the initiative, with 25 students at the pilot site, the following team members comprise the staffing model:

- ASU Senior Vice President of Strategy, overseeing strategy and serving as a Californiabased ASU spokesperson;
- Head of ASU Local, setting strategy, determining culture, and managing the legal, government relations, and funding components of the initiative:
- Executive Director of Growth, developing and overseeing operational management systems, performance management and hiring systems, and the initiative's growth strategy;
- Senior Analyst, providing project-based leadership support, liaising and integrating ASU partner resources, and coordinating systems implementation and process development;

ASU Local's hybrid model offers structured in-person programming and services as well as a digitally delivered curriculum designed with the 18- to 24-year-old contingent in mind.

- Site Director, designing and codifying the ASU Local student experience, building site-based systems, and overseeing student recruitment, satisfaction, and success;
- Recruitment Coordinator, sustaining relationships with high school systems, leaders, and counselors in an effort to inform students about the ASU Local option; and

 Two Student Success Coaches, offering in-person support and college, career, and life programming for students.

The program also leverages existing university staff members in Tempe, including those in the offices of financial aid, EdPlus (ASU's online enterprise), educational outreach and student services, human resources, the ASU Foundation, information technology, marketing, legal, enrollment services, and online course instructors.

As ASU Local scales to serve 560 students per site at additional locations across California, there will be new positions added, including a person responsible for managing the program's curriculum and design, as well as a student supportive service coordinator, a part-time site assistant, and one student success coach for every 35 students.

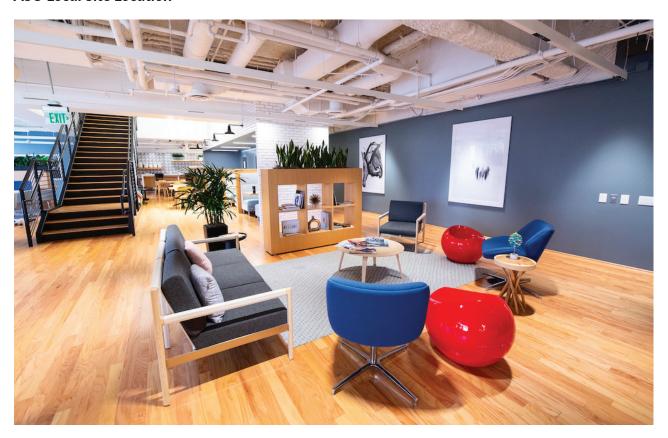
KEY COMPONENTS

The ASU Local model includes in-person learning sites where cohorts of 35 students from low-income and underserved communities receive coaching services; online degree programs with in-person project-based learning; career-development programming beginning in the first year of college; and wraparound socioemotional supports. Other key aspects of the initiative include resources from the existing ASU student success infrastructure and the affordability achieved through its delivery business model.

Coach-led peer cohorts: The coach-led aspect of the program follows a year-round synchronous blocked schedule to complement asynchronous online instruction delivered in a 7-week format. Using personalized engagement techniques, coaches offer in-person support to students and spend time reviewing material covered in online instruction, facilitating career-development opportunities, and ensuring students have access to wraparound services. The synchronous design of in-person activities is meant to give students the flexibility needed to balance school, work, and family commitments.

Online degree programs: Students can select from a mix of degree pathways specific to each ASU Local site. The degrees offered at each site are based on student demand data, regional labor market outcomes, and local industry needs. At the first pilot site, students can choose a major from three degree pathways: (1) business and media; (2) community advocacy and social policy; and (3) information technology. Online instruction uses adaptive courseware

FIGURE 1
ASU Local Site Location



that allows students to learn at different speeds based on their performance.

Career development: Leveraging the network of more than 10,000 ASU alumni who live in the Los Angeles area, ASU Local brings in professionals to support students' career development. The professionals expose students to project-solving activities and simulated challenges. The career-development component of the program is meant to assist students in their job search and help them secure employment after graduation.

Socioemotional supports: ASU Local prioritizes its culture of care for students' holistic needs. Students have access to wraparound services and financial resources and emergency aid grants, and they work with coaches to develop healthy relationships and life-skill competencies. Further, ASU Local contracted with an external organization to provide on-site counseling services to students.

BASIS OF FINANCIAL MODEL

Tuition pricing for ASU Local was set to be covered by the combination of Pell Grants and institution scholarships, with the goal that students

with highest financial need would not have any outof-pocket costs.

Because programs offered at each site depend on that community's needs, some may charge higher program or course fees. These fees have been included in projections of student costs and institutional revenues generated, and they are remitted to the specific unit for which they are charged. ASU Local works closely with students to ensure they understand the complete cost of attendance for each program option. The program has dedicated staff who help students navigate the financial aid application process and understand grant and scholarship fund eligibility.

OTHER CONSIDERATIONS

Community building: For ASU Local, a critical element of student recruitment and retention efforts is to maintain a strong sense of community and inclusivity. Recruitment involves multiple points of engagement with prospective students so that they hear about ASU Local in several spaces and from different audiences. The pilot site director was heavily involved in the recruitment process, given their strong

ties to the community and working relationship with the LA Unified Schools District. Recruitment occurs year-round, and current ASU Local students serve as ambassadors who visit high schools. Prospective students have questions about the transition into college, the atmosphere and rigor of online courses, and the types of supports available that might resonate more if they hear from students rather than staff members. Additionally, ensuring that ASU Local students have access to ASU-branded apparel, bumper stickers, and other merchandise has helped students feel connected to the main campus even at a distance.

Replicating success: It could be difficult to provide to students the hands-on, personalized approach used at the pilot site when operating across

multiple sites. Being mindful of this challenge, ASU Local staff lean on their mutual commitment to the program mission and are working to codify practices so that they operate in a consistent and aligned way at scale. ASU Local plans to hire additional coaches and support staff as they transition from serving one cohort of students at the pilot site to serving four cohorts per site (140 students). However, the approach at one site may not work as well at a site in another community that serves a different set of constituencies; one way ASU Local is anticipating adjusting for this factor is by planning for each site to offer a different set of degree pathways that align with the local workforce and community needs.



UNIVERSITY OF CENTRAL OKLAHOMA

VIRTUAL EXPERIENTIAL LEARNING ACTIVITIES

INSTITUTION PROFILE

is a midsize, regional public university located just outside Oklahoma City in Edmond, Oklahoma. About a quarter of UCO students are age 25 and older, and more than 80% live off campus and commute.

UCO is deeply committed to connecting its students to high-quality, affordable transformative teaching and learning experiences. While at UCO, students are equipped with skills needed to succeed in a competitive global environment, by engaging in activities that focus on the central six tenets of transformative learning: discipline knowledge; global and cultural competencies; health and wellness; leadership; research, scholarly, and creative activities; and service-learning and civic engagement.

The Student Transformative Learning Record (STLR), a university-validated, digital record of students' engagement in the six tenets of transformative learning, tracks and recognizes progression in these six areas. Representing a major investment in transformative learning, UCO's Center for Excellence in Transformative Teaching & Learning (CETTL) helped operationalize STLR and supports individual faculty

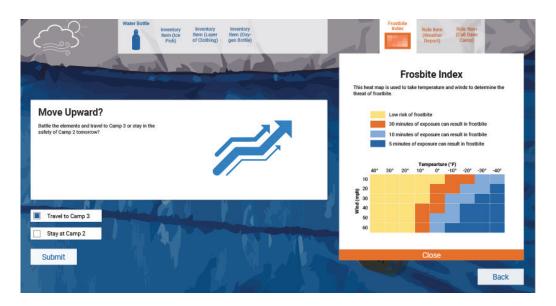
as they create high-quality learning environments. Students are required to submit the work done for a STLR-tagged assignment or activity. Examples may include reflective writing, research papers and presentations, videos, or other items. UCO's STLR initiative has yielded better retention and GPA, especially among low-income, first-generation, and underrepresented students over the 5 years since implementation.

PROGRAM MISSION

UCO has been developing a way to virtually deliver experiential learning (EL) activities and assignments to groups of students who cannot afford to engage in such experiences outside of class. This opportunity is particularly beneficial for students who are exclusively enrolled in online courses, commute to campus, or whose responsibilities limit the amount of extra time or financial resources needed to participate in face-to-face opportunities.

Providing EL activities in a virtual environment should allow students to receive the same benefits that their counterparts who have face-to-face EL opportunities get—without the added cost and time

FIGURE 2 Forward Adventure Simulation for UCO Organizational Leadership Capstone



typically associated with in-person participation. Students can avoid costs that would otherwise prevent them from enjoying a highly valuable learning experience. Each virtual EL activity/assignment is STLR-tagged, allowing participants to keep track of their learning experiences and document growth. Figure 2 illustrates a virtual EL activity in which students must work together to ascend a dangerous mountain.

UCO embedded the virtual EL activities into four courses: (1) an in-person concurrent English course; (2) an online core course called the Fundamentals of Speech; (3) an online Foundations of Organizational Leadership course; and (4) an online Organizational Leadership capstone. The two leadership courses are part of Reach Higher, UCO's flexible adult degree-completion program designed for those who have may have some college credit but no bachelor's degree. Faculty leading each course were tasked with developing a type of experiential, hands-on learning experience with some level of student-to-student interaction in an online or concurrent course environment.

The university is also working to document the EL model creation to support replication by other institutions. The "cookbook" aspect of this pilot is designed to

 provide context on how to scale a virtual EL assignment according to resources, talent, people, logistics, and other criteria;

- allow users to anticipate the commitments and other resources that are required; and
- experiment with the scalability and the reproducibility of projects within a framework.

The cookbook will be formatted as an electronic document with hyperlinks. It will have an instructional narrative so that it is user-friendly in terms of readers (e.g., faculty, instructional designers, curriculum mapping committees) being able to see the developmental components in the various stages of construction.

PROGRAM TEAM

UCO's pilot required collaboration and regular communication among several key stakeholders. The core team included the following:

- leadership from the Executive Director for CETTL and the Executive Director of the Student Leadership Program;
- faculty, who co-designed the virtual EL activities in their respective courses; and
- UCO's Center for eLearning and Connection Environments (CeCE), specifically the IDEA team members, who seek out Innovations, create Designs, craft Experiences, and develop Applications.

CeCE's team is committed to the advancement of blended learning and innovation in education. A few staff from CeCE specifically focused on the programming and data systems needed in order to implement virtual EL activities envisioned by faculty members.

KEY COMPONENTS

Course selections: The four UCO courses selected for this pilot were strategically chosen based on the ease of scalability and diversity of enrolled students, course size, and instructional pedagogy represented.

A concurrent course was selected as part of the pilot as a way to address the challenge of stricter regulations regarding minors (those under the age of 18) having access to face-to-face EL activities beyond the high school campus. Such restrictions tend to deter faculty from including EL opportunities in concurrent courses, presenting a need that a virtual environment could help fill. The specific English concurrent course was chosen because it includes students from a high school with the greatest racial and socioeconomic diversity in the Edmond area.

As a required course, Fundamentals of Speech naturally draws from a widespread mix of students whose racial, socioeconomic, and other characteristics reflect those of the larger UCO campus. If deemed successful, the virtual EL assignment could very easily scale across every section of the course. Further, including this course posed an opportunity to explore ways to allow students to deliver a speech and assess their effectiveness without being able to read nonverbal audience cues like they could if in a face-to-face setting.

The two courses specializing in adult education were selected as a way to provide access to commuter and older students taking online courses and whose competing life and career demands may prevent them from engaging in face-to-face EL opportunities. The leadership courses required building virtual EL activities that would allow for peer-to-peer interaction and collaboration to occur asynchronously. The students' varying degrees of experience and comfort with technology also required building particularly user-friendly virtual experiences. The effectiveness of a virtual EL activity in the Organizational Leadership capstone may have implications and uses for other courses more broadly, by virtue of the shared foundational approach used among most capstone courses.

The faculty instructing each course had prior experience with online and/or virtual environments, were willing to engage in a feedback process to develop a virtual EL, and embraced teaching philosophies that aligned with the pilot's commitment to expanding access and equity. The faculty members worked closely with the CeCE's IDEA team to help actualize their visions and create interactive learning tools and environments.

EL activity design and iterative testing: Using the overarching vision and goals for each virtual EL assignment shared by faculty, the IDEA team worked to develop ideas into minimum viable products (MVPs). Sharing an MVP—a version of a product with only very basic features—allowed the IDEA team to quickly give faculty a preview of what could be possible and offer a point of reference to inform feedback. After several

TABLE 1
Assignment Tiers

Criteria	Tier 1	Tier 2	Tier 3
Technical skill	Low	Proficient	Expert
Cost	Free-Low	Subscription	Enterprise
Specialist	0-1	1-3	3+
Investment time (hrs)	0-10	10-35	35+
Production time (hrs)	0-35	35-100	100+
Complexity	Simple	Moderate	High
Tools	0-1	1-3	3+

rounds of adjustments to each virtual EL assignment/ activity, mock-ups were created and tested with faculty and students. The IDEA team members served as a valuable asset to the project, and their experience and staffing meant they were able to commit from the very first contact to scheduling in the project and completing it on the needed timeline.

Process documentation: UCO's style guidance about virtual EL development outlines the team's detailed decision-making process and considerations, from vision-planning through execution, including relevant resources and tips throughout. The cookbook is meant to serve as a module for instructional designers on how to develop virtual EL activities; it also includes lessons learned and tips for process replication and scaling.

The IDEA team worked with faculty and leadership to assign each of the four EL activities to one of three tiers, representing varying levels of required time and resource commitments. This framework provides context on how to scale each assignment and allows other institutions to determine which approach best fits their needs and capabilities. Each tier is based on set criteria, including the required level of technical skills and abilities to perform specific tasks; financial cost of tools, servers, and production; number of specialists needed to create and routinely monitor the activity/assignment; number of hours dedicated to creating the activity/assignment; number of hours dedicated to running and routinely monitoring the activity/assignment; level of activity/assignment complexity; and number of tools needed to develop or implement that activity/assignment (see Table 1).

For UCO, the primary cost has been personnel time for faculty and instructional designers to develop the EL modules.

Assessment: Measuring the impact of the virtual EL activities falls outside of NASPA's project timeline but is still a core part of UCO's pilot. UCO's learning management system and other selected technology tools will track analytics of student use and completion of virtual EL activities, time on task, and the

quality of student reflections about the experience. The STLR assignments (e.g., reflective writing, research papers, presentations, videos) produced by students will allow for nuanced, thoughtful feedback that will inform improvement efforts. By leveraging the existing STLR assessment protocol, faculty will be able to review student work submissions associated with each virtual activity/assignment and determine the level of learning competency progression achieved (i.e., exposure, integration, or transformation). Faculty and student interviews may also be utilized to collect data about experience with the virtual activities, peer-to-peer learning, and STLR implications; this would happen within a mixed-methods, multi-paradigmatic research design suitable for assessing transformative learning interventions. Moreover, CeCE operates using a standard 3- to 5-year review cycle for every assignment/activity created to ensure that faculty are still managing them with fidelity to their intended learning goals.

BASIS OF FINANCIAL MODEL

UCO has utilized institutional general funds as well as modest grant funds to develop the initial virtual EL pilots. The opportunity for additional faculty to integrate EL into their distance programs—including those that are online and for dual-enrollment students—will be available as a part of the regular menu of course development options offered by IDEA.

For UCO, the primary cost has been personnel time for faculty and instructional designers to develop the EL modules. Related future costs may include training for other faculty to participate in planning and development and time for these individuals to maintain and update the scenarios and activities. UCO has a regular review cycle for online programming that will now include these segments.

Because of its focus on open-source software, UCO has not incurred significant technology costs. Other institutions will need to consider the programs available on their campuses as well as the interfaces necessary with their learning management system to deliver the developed activity modules.

Although UCO elected not to, it noted that other institutions that charge a premium for online courses or programs may consider using a portion of that fee to finance development of additional online EL opportunities.

OTHER CONSIDERATIONS

Existing assets: UCO's investments in CeCE and STLR served as preexisting assets that helped facilitate the virtual EL pilot's implementation. CeCE's IDEA team, with its high level of technical expertise and creativity, enables the creation of signature tools and applications that can easily adapt to the STLR framework. All four virtual activities are built as STLR-tagged assignments, which will further reinforce the perceived value and validity of EL at UCO.

UCO has intentionally developed EL activities/ assignments in a platform-agnostic manner and using open-source technology when possible. The cookbook's tiered model for assignment replication recognizes that other institutions may lack access to the same level of technical expertise available to UCO. The cookbook provides estimates of hours spent on investment and production time for each assignment, but they are approximations that will vary according to campus circumstances. Even with a tiered model, there still exists a certain level of strategic management required to ensure quality design and creation of virtual EL activities. UCO's technical arm was used to realize the vision of faculty members, whose spirit

of innovation and areas of expertise were needed to create the assignment content.

Student protections: The IDEA team was especially cognizant about building the EL activities in an accessible way while still protecting student data and alleviating any privacy concerns. Particular attention was paid to ensuring that regulatory and legal standards were met for students in the concurrent course, given their status as minors. The virtual EL activities were created so that collected student data could be protected in a contained UCO environment. Additionally, beta testing of each virtual EL activity helped determine which types of scenarios or decisions made students uncomfortable and required revision to still achieve target learning goals. Activities were also designed to allow for instructor monitoring of student conversations and to prevent inappropriate behavior. For example, student-to-student comments about written assignments were intentionally designed so that no one could post anonymously; this was done to encourage students to give feedback and maintain accountability.



UNIVERSITY OF TEXAS AT SAN ANTONIO

DOUBLE-OCCUPANCY RESIDENCE HALL OPPORTUNITY

INSTITUTION PROFILE

UTSA

is a 4-year public, Hispanic-serving institution in the San

Antonio, Texas, metropolitan region. With more than 32,000 students, UTSA is a growing university and anticipates that its student population will expand to over 45,000 by 2028. UTSA sits in an area with a large supply of affordable off-campus housing options, but the projected increase in enrollment signals a greater need for additional housing on-campus.

PROGRAM MISSION

By changing oversized single-occupancy rooms into double-occupancy rooms, UTSA has worked to reduce housing costs and increase access to on-campus housing for first-year students. Initiated in May 2018 in the Chaparral Village residential facility, the double-occupancy program is designed to support student success, meet the demand of

growing enrollment, and eliminate disparities in access to on-campus housing.

The conversion of single spaces to double spaces provides two main benefits that address the issue of access to on-campus housing. The cost for a shared bedroom space was substantially reduced from the cost of a private bedroom. For many prospective students, educational affordability is a high priority, which is directly affected by the reduced cost for the shared bedroom spaces. In addition, the conversion of spaces to shared bedrooms allowed UTSA to increase the number of students residing on campus.

UTSA's program operates under the assertion that providing more first-year students with the opportunity to live on campus at a reasonable price will help students to persist and maintain a higher-than-average GPA. Analysis by UTSA's Institutional Research Office finds that on-campus residents earn 0.3 grade points higher than do students who live off campus—and that this benefit persists for those same students during their second year, even if living elsewhere. UTSA's internal analysis also found that first-generation students were 11% more likely to

FIGURE 3 Double Occupancy Room: Four Bedroom and Two Bath, 928 Square Feet



persist from their first year to their second year when living on campus.

PROGRAM TEAM

Implementation and management of UTSA's double-occupancy program requires the involvement of several team members with varying responsibilities. The staff involved include the following:

- Vice Provost for Student Success, who ensures alignment and connection of the program with other strategic projects and student success initiatives on the campus;
- Executive Director of Housing and Resident Life, who provides leadership and administration of staff, budgets, and programming for UTSA's residential communities;
- Associate Director of the Residence Life Hall, Complex Coordinator of the Residence Life Hall, and Residence Life Assistants, who manage and coordinate resident education and development efforts in Chaparral Village;
- Associate Director for Housing Marketing and Housing Marketing Liaisons, who recruit undergraduate students to live in the doubleoccupancy rooms and provide on-campus tours of the facilities; and

 Senior Associate Vice President for Housing and Campus Services, who oversees operations for housing services, parking, transportation, and contracted auxiliary services.

KEY COMPONENTS

Physical space conversion: The conversion of single-occupancy units into double-occupancy units involved thoughtful planning about the functionality of each space and impact on other services. Each converted double-occupancy layout is 928 square feet and includes a kitchenette, two bathrooms, and four bedrooms, with each bedroom accommodating two students via a lofted bunk bed (see Figure 3). The Executive Director of Housing worked closely with the Senior Associate Vice President for Housing and Campus Services and a consultant to analyze each facility's capacity for expansion. Analysis also included examining each facility's ability to handle

Most students who are interested in the double-occupancy spaces are drawn to the benefit of financial savings.

additional strain on laundry facilities, internet service, and plumbing. It was important to ensure that students in the converted rooms could have the same experience and access to services as others on campus, such as not having to worry about having slower Wi-Fi. After addressing these unit conversion concerns, additional furniture was purchased to better fit into the new floor plan configuration. The new furniture allowed for flexibility; students could rearrange it in a way most conducive to the size of the space and to their preferences.

Marketing: Facing a competitive off-campus housing market, UTSA has dedicated efforts to highlighting the availability and value of the new double-occupancy units to prospective students. Currently, the double-occupancy rate is 40% less expensive than the single-occupancy rate, making it an attractive option for students who prioritize the importance of housing affordability in their decision making. UTSA's marketing team leverages social media, serves in a customer service role when communicating with students over the phone, and physi-

The double-occupancy space allows students to live on campus at an affordable cost, build meaningful connections with roommates, and have more convenient access to on-campus engagement opportunities and resources.

cally shows the spaces during tours with prospective students. Most students who are interested in the double-occupancy spaces are drawn to the benefit of financial savings. Living on campus can also provide students with access to utilities, laundry facilities, study rooms, computer labs, and amenities, including a community swimming pool, a hot tub, and a basketball court. Being close to dining halls and classes can save students valuable time and commuting costs that they would otherwise have to pay if they lived

off campus. Updates to the housing website now help students better visualize the spaces, and the addition of comparison tables highlights the affordability of the double-occupancy option.

Measuring Impact: An important component of UTSA's double-occupancy housing initiative is to collect and analyze student data related to success outcomes, levels of satisfaction, and potential improvement areas. The core project team has engaged with UTSA's Institutional Research Office to compile data for the 2018-2019 and 2019-2020 student cohorts. Outcomes measured will include fall-to-spring persistence, first-year and second-year retention, first-term GPA, cumulative GPA, and ratio of credit hours attempted to hours earned. Outcomes of students living in double-occupancy rooms will be compared to other on-campus students living in single-occupancy rooms and also to students living off campus. Information about housing demand, occupancy, and room changes is gathered through the housing occupancy management software. Further, to better assess future scalability and budgetary impacts, UTSA is working to calculate the return on investment for the project and to analyze annual housing satisfaction surveys.

BASIS OF FINANCIAL MODEL

Although the cost of tuition has been the focus of intense discussion among institutions and their critics, less attention has been paid to the ancillary expenses of attending college. One such expense is housing, which in some locales can nearly equal tuition. UTSA has developed a program to help reduce student housing costs and build community among students who live on campus.

UTSA's housing stock included rooms that could be converted from single- to double-occupancy with a change-out of existing furnishings. Support facilities and services, such as bathrooms and internet service, were adequately resized. These factors enabled the university, with a modest investment of funds, to pilot the new residency offering.

Pricing for the new room configuration was set to recoup the furniture costs as well as cover marginal additional maintenance and operational expenses. Although the rate exceeded half that of a single-occupancy room, it was nevertheless significantly below the single room rate and competitive with off-campus housing prices.

OTHER CONSIDERATIONS

Implementation timing: The timing of a new initiative should align with the student life cycle at the institution. Although the majority of the doubleoccupancy rooms were filled, there were issues during the initial phase of the program because it was introduced late in the summer, after many students had already chosen their housing. To allow time for strategic alignment and communication efforts, new programs seem best implemented in staggered phases that complement the student life cycle. Timing of messaging about the availability and setup of the rooms is key to ensuring that students are aware of the situation they may be signing up for; also, they must receive this information during periods of critical decision making. Proactive engagement and communication should help ensure that programs do not compete or conflict with other announcements. Early information-sharing efforts should minimize confusion and, thus, turnover rates among students who decide to live in the doubleoccupancy space.

Student experience: Small-space on-campus living has its benefits and drawbacks for students. The primary benefit cited by UTSA students was the financial savings. The double-occupancy space allows students to live on campus at an affordable cost, build meaningful connections with roommates, and have more convenient access to on-campus engagement opportunities and resources. Without this option, students may only be able to afford off-campus housing options, which prevents them from enjoying the benefits of living on campus during their first year. The connections and supports available that first year can be critical to a student's likelihood

of persisting and eventually completing their degree at that institution.

Drawbacks to this experience might include having a lack of privacy and potential for increased instances of conflict due to mismatched expectations. Anecdotal evidence suggests that those students living in the double-occupancy spaces will mediate conflict among themselves; those in single occupancy rooms seemed to depend on outside intervention to help mediate a situation, or they tended to avoid issue confrontation altogether.

While living in close quarters may motivate residents to have conflict-resolution discussions on their own, having proactive support from residence life staff who are trained in mediation is highly valuable. Residence life staff create structured communication processes to help facilitate roommate conversations about boundaries and ground rules. Roommates may use mediation to sort through agreements about schedules, visitors, and cleaning responsibilities. Using mobile group-messaging apps can help increase access and real-time availability of residence life staff to help answer student questions and stay connected and informed about updates to situations. Moreover, intentional staff programming to help students maximize the benefits of living on campus and have a quality experience is needed. For example, staff may have residence hall orientations to help students get to know each other and to set the tone about expectations and discuss availability of different resources and campus procedures. The roommate selection process can also help match student lifestyles and preferences to reduce instances of conflict.

SHARED PRINCIPLES FOR COST-SAVING INNOVATION

he three initiatives each take a distinct approach to lowering costs for students. ASU Local has set out to offer a new blended higher education model at a low tuition cost; UCO is leveraging existing assets and expertise to offer students free access to transformative learning experiences; and, in anticipation of growing enrollment, UTSA has adjusted its housing model to include an affordable on-campus option for first-year students who can most benefit from it. Although their initiatives differ, these institutions share a set of common, interrelated principles for fostering and operationalizing innovation.

SET A CLEAR VISION TO GUIDE GOALS AND OBJECTIVES

Each pilot institution had a guiding vision for how to address identified problems. In a time when many colleges and universities grapple with initiative fatigue, it's critical to ensure that leadership can clearly articulate the purpose of a proposed pilot, the problems it intends to solve, what a successful end result looks like, and how it aligns with other existing initiatives. The vision for an innovative idea should map back to the institution's overarching strategic plan and offer a clear value proposition. Additionally, that vision should communicate a set of values that can be seen in the pilot's approach.

In the case of ASU Local, the choice to specifically target and enroll primarily Pell Grant-eligible students was intentionally made to align with the program's mission. As a student success initiative, UTSA's double-occupancy opportunity uses key performance indicators such as first- to second-year retention rate and GPA. UCO designed online virtual activities for student populations that historically lacked access to in-person EL opportunities, which influenced the selection of two adult-education courses as part of its pilot.

TAKE STOCK OF OPPORTUNITIES, ASSETS, AND CHALLENGES

Forging a path toward a desired future state requires assessing an institution's current situation.

A key piece includes conducting a form of an environmental scan and SWOT (strengths, weaknesses, opportunities, and threats) analysis during the planning phase. Before committing to a specific plan of action, institutions should outline resource capacity, target-student populations' characteristics and needs, existing strengths and assets, barriers to success, emerging trends, and economic forces. Investing time and effort into such assessment can prepare institutions to know which strengths to leverage and potential challenges to mitigate. Understanding the current and future demand and diversity of the market can also inform future scaling efforts.

There are several examples of how the pilot institutions signaled readiness to implement their innovative cost-saving idea. UTSA identified the need for additional on-campus housing at an affordable price based on several factors, including an increase in undergraduate enrollment, competitive off-campus housing costs, and findings from an internal case study indicating positive impacts of living on campus for first-year and first-generation students. As a commuter school with a well-regarded STLR program and built-in technological resources, UCO seemed well positioned to pilot the virtual EL idea to its student population. Nurtured by an existing culture of innovation, ASU Local utilized available resources to enhance the program, including alumni in the downtown Los Angeles area, ASU's robust digital learning and remote support services infrastructure, and ASU's emergency aid fund.

IDENTIFY AND COMMUNICATE WITH DIVERSE STAKEHOLDERS

Innovative ideas seem most effective when executed by a cross-functional team with institutional leadership support. In the case of UTSA and ASU Local, a member from the senior leadership team is part of the pilot program team. For UCO, the Executive Director of CETTL acts as project lead and liaises with cabinet leadership via a formal mechanism for ongoing communication. The dedicated lead of the project also serves as a point person to connect each team member and ensure

clarity about roles, responsibilities, organizational structure, processes, and support resources. Having a cross-departmental and/or cross-functional team ensures that a wide range of perspectives, areas of expertise, and vantage points about the student experience are included throughout the process.

Regardless of organizational structure and level of decentralization, each pilot campus found that effective innovation management requires collaboration and coordination across multiple units. Ongoing communication should happen among the core team members and with other stakeholders, including students, institutional administrators and faculty, and external audiences. Operating as an ASU program in an out-of-state location, ASU Local worked closely with several outside entities at the local, state, and federal levels to ensure compliance with regulations and policies. At UTSA, communication efforts were heavily directed toward students to increase their awareness about the new housing opportunity and its multifaceted benefits. Given lessons learned from past implementation of the STLR initiative, UCO highlighted the importance of early communication as well as worked with a few faculty members who could build the virtual EL from scratch and serve as its champions.

BALANCE LONG-TERM VISION WITH SHORT-TERM STRATEGY ADJUSTMENTS

Implementing each innovative cost-saving idea required some level of flexibility to adjust to new information and feedback. Monitoring progress and assessing the impact of each initiative will require collecting student and financial data as well as stakeholder feedback. Programs should operate with fidelity to the initial vision but also allow for assumptions to be tested and validated. For UTSA, important data sources included feedback from marketing liaisons

about what prospective students and current residents thought about the double-occupancy rooms. Asking questions about how they heard about the option and what they most like or dislike will inform future developments. Further, by increasing the number of students in a physical space, UTSA had to be mindful of unintended consequences on the quality or access to other utilities or services during implementation. Had there been any issues here, the pilot would have had to be modified accordingly.

If strategies outlined during the planning phase create inefficiencies in practice, then recalibration may be required. For example, cost-saving models that are related to teaching and learning will need to adequately address the learning outcomes for which the institution and related departments will be held responsible; this may result in ongoing adjustments to the roles of faculty, coaches, and other personnel, to ensure alignment of assignments, activities, and support resources. As any unanticipated factors come into play, a pilot model in its early stages of implementation should be nimble enough to adjust and evolve as needed.

Another key piece of implementation is to codify and systemize routines and tasks in order to formalize the innovation. UCO demonstrates this principle in practice through its creation of cookbook-style guidance intended to help other institutions understand how and where to begin in adopting their own virtual EL activity/assignment. UCO's cookbook relates key decisions, processes, and elements of the model in a transparent and accessible format. Sharing the lessons learned of an innovation from conception through execution can facilitate the spread of adoption at a larger scale—at UCO and at other colleges and universities.

CONCLUSION

igher education is deploying a range of innovative strategies in response to rising costs and financial challenges. Piloting new ideas—and documenting the process of innovation—is critical to validation and scaling efforts. This exploratory project is meant to offer insights for other institutions looking to better understand the key decisions and business model behind creative

cost-saving initiatives. The programs examined here have promising implications for the future of cost savings and innovation in higher education, which are now especially salient as unexpected world events have forced many institutions online. The recent pandemic has heightened the need for higher education to anticipate future changes and innovate in areas of pedagogy, student supports, experiential

education, and housing. As the college landscape shifts, affordability remains a critically important factor to address.

The global pandemic revealed an unprecedented number of considerations for colleges and universities as they determined how to continue their daily operations and engage in strategic planning. Examining how each pilot model proceeded since the conclusion of the project could offer useful

insights. Especially challenging circumstances may prompt institutions to adjust current operations and discover creative solutions. Another extension of this research could involve examining these models' applicability at different types of institutions to test scalability. Future research should take a longitudinal approach and explore the pilot program impacts and whether there have been any resulting cost savings to students.

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