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Lance Hawvermale  
*Ranger College*

Richard A. Voorhees  
*Kansas State University*

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# Streamlining Success: A Study of Best Pre- and Post-Matriculation Practices in Community Colleges

*Lance Hawvermale and Richard A. Voorhees*

## Introduction

Many students who apply to college never enroll in a class, and of those who do, a significant number do not persist through their second semester. While community colleges frequently engage with a variety of new achievement strategies to address these two problems, “they have frequently directed them at one segment of the student experience...and they have generally reached a relatively small number of students” (Bailey, 2017, p. 37). Though the literature addresses both issues individually, there is a gap in the literature about the importance of considering these areas as a single system. This study investigates pre- and post-matriculation practices implemented by a sample of three community colleges. Identification of working pre- and post-matriculation systems based on best and promising practices could provide community colleges with a model to improve student success. The study contributes insight into new pre- and post-matriculation systems and provides a blueprint for colleges seeking to improve efficiency and outcomes for those areas. Beneficiaries of this study are those colleges seeking an efficient, data-informed experience in the outreach, onboarding, and advising processes, to name only a few.

## Background: The Pre-and Post-Matriculation Periods

As posited by Acevedo-Gil and Zerquera (2016) and McFadden (2016), this study considers the pre- and post-matriculation timeframe to be the most critical segment of a student’s entire academic career. Six months prior to the first day of college classes is the time period during which most students apply for admission, complete the Free Application for Federal Student Aid (FAFSA), visit campus, and submit required paperwork. Yet, after that initial application process, many of the students never enroll in a single class. Castleman et al. (2013) and Field (2020) referred to this phenomenon as “melt.” Students melt when they intend to earn college credit but fail to register for any coursework (Rall, 2016). O’Connor (2018) described melt as the phenomenon in which students “leave high school with plans to attend college and never arrive at any college campus that fall” (para. 3). Adult students could melt due to lack of adequate childcare, transportation, or technology. The majority of melt occurs among minority and low-income students (Georgetown University, 2020) and is in part attributed to the “flood of forms” a college applicant must complete for admittance (Gehlbach & Page, 2018, para. 2). One such form is the FAFSA. Guzman-Alvarez and Page (2021) report that the FAFSA forms of 60% of Pell-eligible students are flagged for auditing (compared to 20% who are not Pell-eligible), and of those, 25% fail to complete the verification procedure correctly and thus miss out on Pell funding. The FAFSA requires levels of credentials and personal records that many families—particularly undocumented students’ families—do not maintain. As highlighted earlier, there are many reasons a student might melt, resulting in a situation in which the “average institution fails to convert roughly half of their applicants into enrolled students by the first day of the fall semester” (Bevevino, 2016, para. 1).

An equally critical period begins the first day of class and appears to last through the second semester. During this post-matriculation period, attrition is high. The literature has chronicled these challenges well (Braxton et al., 2000; Tinto, 1993; Watson, 2013). Well-known obstacles include lack of resources, inadequate advising, and a bottleneck of developmental coursework—to name only a few. Recent national data from the Community College Survey of Student Engagement (CCSSE) indicated that almost one-third of students received “very little” help in coping with non-academic responsibilities, and over 40% reported that an advisor reached out to them only once or not at all during their first semester (CCCSE, 2022). These factors add up. After two years of community college, only 13% of entering students graduate; even after four years, the number increases only to 28% (Kraemer, 2013). More than one-third do not return for a second semester (Chism et al., 2016).

Overcoming structural barriers is a key factor in determining if a student completes a second semester, thereby increasing their odds of overall completion (Chism et al., 2016; Levesque, 2018; Matthews et al., 2022). The problem is even more acute for students of color and those of low-income households, who often lack the social and financial resources to succeed in an inefficient and confusing academic environment (Bailey et al., 2015). Students who are deemed “not college-ready” must pass through a gauntlet of developmental education classes in English and math, which lengthens their time in college, increases their costs, and decreases their likelihood of graduation (Long, 2014). This has led to the co-requisite trend of placing students simultaneously in a developmental course and a freshman-level course.

Building a bridge that connects students’ initial application for admission to their second semester in college is a construct not frequently found in the literature. This study examined how the participating colleges were able to link isolated programs to provide a cascading effect that resonated across the pre- and post-matriculation timeframe by answering the following research questions:

1. Which strong pre- and post-matriculation practices do study colleges have in common?
2. What is the relationship between institutional culture and pre- and post-matriculation interventions and systems?

## **Methodology**

This research employed qualitative techniques to gather first-person accounts of pre- and post-matriculation best practices in a multi-case study of three colleges. The institutions participating in this study were selected based on these criteria: (1) the institution was a public community college; (2) the institution was a member of the national Achieving the Dream (ATD) initiative; (3) the institution has participated in Survey of Entering Student Engagement (SENSE) and/or CCSSE data surveys; and, (4) the institution has been identified by a panel of community college experts as being engaged in best pre- and post-matriculation practices (Table 1).

**Table 1**  
*Study Colleges*

College 1	<b>Location</b>	<b>Enrollment</b>	<b>Achieving the Dream</b>	<b>SENSE</b>	<b>CCSSE</b>
	Southwest U.S.	~4,000	Yes	NA	2002-2021
	<b>Basic Classification</b>	<b>Instructional Program</b>	<b>Enrollment Profile</b>	<b>Locale</b>	<b>Size and Setting</b>
	Associate's Colleges: High Transfer – High Nontraditional	Associate's Colleges: High Transfer	Exclusively undergraduate two-year	Rural Fringe	Two-year, medium
College 2	<b>Location</b>	<b>Enrollment</b>	<b>Achieving the Dream</b>	<b>SENSE</b>	<b>CCSSE</b>
	Southwest U.S.	~7,000	Yes	2015	2008-2015
	<b>Basic Classification</b>	<b>Instructional Program</b>	<b>Enrollment Profile</b>	<b>Locale</b>	<b>Size and Setting</b>
	Associate's Colleges: High Transfer – High Nontraditional	Associate's Colleges: High Transfer	Exclusively undergraduate two-year	City Midsize	Two-year, medium
College 3	<b>Location</b>	<b>Enrollment</b>	<b>Achieving the Dream</b>	<b>SENSE</b>	<b>CCSSE</b>
	Midwest U.S.	~14,000	Yes	2008-2012	2002-2022
	<b>Basic Classification</b>	<b>Instructional Program</b>	<b>Enrollment Profile</b>	<b>Locale</b>	<b>Size and Setting</b>
	Associate's Colleges: High Transfer – High Nontraditional	Associate's Colleges: High Transfer	Exclusively undergraduate two-year	City Midsize	Two-year, large

A panel of three community college experts, consisting of former presidents of community colleges, assisted in selecting the colleges included in this study. These experts were identified based on their well-established history of scholarship, their active involvement with matters important to community colleges, and their leadership on the national level. The panel members were asked to draw upon their extensive knowledge of the community college movement and select three institutions currently renowned as progressive trend-setters in the area of pre- and post-matriculation student success.

## Study Participants

The individuals responsible for the development, deployment, and oversight of pre- and post-matriculation practices at the three participating colleges were best equipped to describe those interventions and how they functioned or did not function holistically. The researcher conducted a total of 14 semi-structured interviews: five front-line staff members in admissions or student services, five full-time advisors, two mid-level departmental directors, and two executives at the vice president level.

## Data Analysis

Qualitative analysis was conducted in five phases, as suggested by Yin (2010). The first phase, compiling, meant gathering the data. Disassembling involved breaking down large amounts of data into separate groups, and then breaking those groups into smaller pieces. Codes were applied during this phase. Reassembling was the recognition of emerging patterns when the coded data were brought together. During the interpreting and concluding phases, the researcher employed inductive reasoning, allowing themes to emerge from the data without predetermination. Bingham and Witkowsky (2022) asserted that inductive reasoning is used in qualitative analysis as an effective “bottom-up” strategy, which permits forms and ideas to rise naturally from the body of collected data. The themes were grouped when appropriate to establish trends and to construct as detailed a description of the pre- and post-matriculation system as possible.

**Coding.** Specific codes were used to group categories. For example, forms of the word “empower” appeared 16 times in the interviews, so “empowerment” became the title of a code. Multiple codes might be applied to a single sentence. Analysis of these codes led to identifying broader themes, which were created based on the instances and weight of a particular code. In Table 2, “instances” refers to the number of times a code was mentioned across all interviews, while “weight” is the number of individual interviews in which that code was discussed. Items appearing in fewer than half of the interviews (weight < 7) were not coded. A code’s “weight” is important, as it represents the number of interviewees who deemed a particular topic relevant and included it as part of their response.

**Table 2**

*Coding Frequency*

<b>Strong Practice</b>	<b>Code</b>	<b>Weight</b>
Select the right president	presidency	11
Engage and incentivize to create enthusiasm	culture	11
Lead at all levels by listening	leadership	10
Cross-train employees	training	10
Use data to improve services	data	8
Streamline the process	one-stop shop	8
Encourage innovation	empowerment	7

## Findings

Each code is supported by a number of direct statements from interviewees that provide context and detail. Exploring these codes led to identifying themes that emerged from the data.

**Presidency.** The college presidency was the single most often mentioned factor when the interviewees discussed culture, success, student support, and best practices in pre- and post-matriculation. In Table 2, the presidency code has the highest number of instances and also the greatest weight. This indicates that it might be the leading cause of success in pre- and post-matriculation processes, underscoring what existing literature implies about the importance of the college CEO setting a cultural tone that encourages staff to make data-based inquiries.

Eleven interviewees talked about the impact their college president had on nearly every part of their job: advising, student interactions, and campus morale. The presidency was cited as the number-one factor that contributed to the college's culture. One respondent went so far as to say, "[The president's] goal for us has always been to be the best community college in the nation, and so we take those kind of lofty goals and run with it."

**Culture.** Eleven interviewees indicated that culture plays an outsized role in the success or failure of any institutional initiative. When asked to describe their college's unique culture, participants responded with adjectives such as *supportive*, *sharing*, and *cooperative*. Eleven interviewees spoke positively of the local culture. No interviewee referred to their college's culture in a negative vein. One went so far as to say, "I would say that we have one of the best cultures that could probably be imagined in higher education."

Eleven participants noted the importance of creating a positive culture. They reported that culture was woven into their hiring practices: "Many times when we hire a new advisor, it's their very first time in [the] higher education field, and so we mention to them that attitude and a cultural fit is important." Even if job applicants possessed high skill sets, they were not considered for the position if they did not seem like they would fit the prevailing culture: "We're not going to go with any of [the candidates]. We're just going to start over." Those same attitudes are applied to student services. One college never launches any kind of "pilot" program that is designed to start small before unfolding campus-wide: "If it's good for one group of students, it's good for all students, and I think that has contributed to our success. That's impacted our culture." An interviewee at a different college held the same philosophy, that student support was linked to culture: "I'm amazed [by] how supportive and invested our counselors, faculty, and staff are in trying to make sure students are successful. Our culture is supportive, inclusive, and accepting." Another interviewee referred to the college's culture as "relational," implying that those relationships were shared between faculty and staff and between advisors and students. Such relationships positively impact student success rates (Gordon-Starks, 2015).

**Leadership.** Ten interviewees mentioned the importance of leadership in the success of pre- and post-matriculation processes. Leadership, as discussed in the interviews, was not confined to the president's office but existed at various levels: a departmental director, a team leader, or an advocate for students. One interviewee referred to leadership as the "secret sauce" that enabled their processes to move so efficiently. Another said that effective leadership helped to "move the

needle” when it came to barriers, smoothing a student’s path and making them feel “fully invested in their college.” Yet another remarked that a leader within her department encouraged everyone to “just go full throttle” when it was time to roll out an event designed to engage students in the academic process.

One interviewee stated that leadership was perhaps even more important to overall student success than the work of those on the front lines, because “it’s all about the structures that are in place and how students experience the college.” Leadership makes those things possible. The upper-level leaders have the most power to remove common barriers to student success by changing policies and procedures.

**Training.** Ten of 14 individuals interviewed in this study mentioned the importance of proper training in the pre- and post-matriculation process, not only training in the specifics of the job but also in customer service. One participant stressed the importance of training employees “to interact with students in a positive way and help them through the process.” Several interviewees shared anecdotes of their own personal experiences as students, both positive and negative, when interacting with a college representative in the pre-matriculation phase of their academic career. Training appeared to have a major impact on the quality of those interactions.

**Data.** When asked about the use of data in support of particular interventions, 11 interviewees reported that, at least on some level, data were always consulted and used as evidence for decision-making. One interviewee provided an example:

I sit on the Holistic Advising Committee, and it would be very easy to say, “Hey, I know this is being done somewhere else, we should try it, too.” But every time something is proposed, the question has been, “What are the data?” “What is the drop rate?” “What is the pass rate?” And those conversations are had every time we make a decision.

Eleven interview participants believed that their processes were driven by an examination of existing information, with the ultimate result being an improved sense of accomplishment. As one interviewee attested, “That’s the hope that we have, that every student has a little bit more of a plan wherever they are going. And that’s something that I think came out of looking at our data.” The majority believed their institution made decisions in pre- and post-matriculation processes based mainly on data. A statement that was repeated in various ways was, “We think about our data, and we all look at our data quite frequently.”

**One-Stop Shop.** Directly related to that best practice, eight interviewees used the term “one-stop shop” without prompting. They used that identical phrase when asked to describe what they believed to be a best practice at their institution in pre- and post-matriculation. One explained in detail how it worked at their college:

We’re all integrated. We’re all right here together, like even physically, logistically ... we’re all in the same building. So, all of our offices and stuff are all in this one large space, so when students can come in, they’re greeted by a success advocate. And they say, “What are you here for, financial aid?” [The students] can just walk up to the podium and talk to financial aid right away. The Career Development Center is right here. Our testing services for placement stuff is on the floor just directly above us. Years ago, before I even came, all of these services are scattered all over, and they recognize the need to be a one-stop shop. The cool thing is the bottom floor. There’s the bookstore, the

business office, all in the same building. But there's also a big open area. There's a little coffee shop. There are study rooms. And then up on the third floor above us is the testing services. All the success advocates are also right up on the third floor above us. Registration is here in this area with us. So, when a student meets with me, we go through their degree plan. I help them put their schedule together. I walk them straight down fifty steps to registration. Make sure you get enrolled and registered. Get their schedule, walk them over to financial aid right outside my office. Talk to them. They'll get you straightened out. What you need to do if they need to talk to the business office. Go right down below us downstairs. So, it has centralized the access.

Another interviewee, who worked in student outreach, said the one-stop shop applies not only to a building on the main campus, but to all student registration experiences:

We try to truly be embedded wherever our students are, as much as we possibly can, so that we can walk them through the process. [We are] basically creating one-stop shops in our events but creating one-stop shops in all of these communities, too.

The idea carries over into other parts of the process. Interviewees from one college reported that their institution is trying to do away with hardcopy forms entirely. "We've created only dynamic forms for everything, so if a student needs to fill something out, I can just email them the link...and then it gets submitted directly back to me."

Each college had either entirely consolidated all student services into a single location on campus, or they were working on bringing the last few elements of that process together. The end goal is that a student can walk in off the street and leave that building with a class schedule, having finished placement tests, completed the FAFSA, and taken advantage of all student support services in one visit.

**Empowerment.** A successful pre- and post-matriculation program appears to depend in part on whether employees feel empowered to do their jobs autonomously. None of the 14 individuals in this study were full-time faculty, though one interviewee did teach in an adjunct capacity. Half of the interviewees reported that college leadership fully supported efforts to think outside the box and try something new. One said, "[My supervisor] encourages me to dream big. Sometimes we don't know how we're going to pull off some of these events...but he makes us believe." A student support administrator explained the link between empowerment and innovation:

We want to be the most innovative place, and we're asked [by college leadership] to innovate. We're given the space to innovate, which I love, and to be creative. And then we're asked to be accountable for it...they'll ask questions like, "Are we making it happen?" "Did it happen?" "Was it successful? Let's sit down and debrief."

Other interview participants had similar experiences when asked if they felt empowered to try new things in the areas of pre- and post-matriculation student success: "We set aside dollars for innovative projects. Because I mean it truly is our spirit. We want to be entrepreneurial. Don't let budget be your barrier...you can go and create that idea you just had."

## Emerging Best Practices

After an analysis of the interview transcripts and a consideration of overlapping codes, the researcher identified several important themes. These themes indicate best practices that answer research question 1: Which strong pre- and post-matriculation practices do study colleges have in common? The criteria for focusing on these themes were both objective—how frequently these ideas were mentioned, and subjective—the degree to which the interviewees expressed their belief in these ideas with a passion for their work.

**Best Practice: Select the Right President.** The “right” president is one who creates the type of energy and enthusiasm discussed by the participants in this study. Perhaps even more important than the president’s experience or knowledge base is their ability to inspire, to maintain open lines of communication, and to serve as a visionary for others to follow.

**Best Practice: Engage and Incentivize to Create Enthusiasm.** A cultural trait the researcher observed was enthusiasm. With only one exception—an individual who was experiencing “burnout” and nearing retirement—the interviewees appeared to be sincerely eager for student success and to use the resources allotted to them to be creative in their response to student needs. As many as 13 interviewees talked about a passion for their work and a joy at seeing students overcome barriers.

**Best Practice: Lead at All Levels by Listening.** Group leaders, departmental directors, deans, and upper-level administrators can all engender a more creative and productive workspace by actively listening to the ideas of those with expertise in specific areas. This is more than simply announcing a “my door is always open” policy; it means actively seeking out the counsel of staff members and encouraging them to bring forward their own ideas for change.

**Best Practice: Cross-Train Employees.** Students receive a better experience, and barriers to success are removed, if support staff and advisors are trained to answer questions that are normally outside their job descriptions. Colleges with successful pre- and post-matriculation processes are those who involve their staff in continuous training and provide a proactive support network.

**Best Practice: Use Data to Improve Services.** By routinely consulting data and assessing the performance of processes and programs, the college can better consider student needs and provide a more satisfactory customer experience. Successful initiatives begin with data. The evolution of those initiatives depends on frequent assessment of results.

**Best Practice: Streamline the Process.** Streamlining encompasses both the introduction of a one-stop shop and the shift from hardcopy paperwork to digitally signed forms. This usually involves a physical rearrangement of offices so that students can complete all pre-matriculation requirements in a single place.

**Best Practice: Encourage Innovation.** Employees who deal with students on a regular basis, when given the freedom and funding to innovate, can make an immediate impact on the people they serve. Their desire to innovate stems from their enthusiasm for their jobs.

## Discussion

This study identified best practices that impacted student success. The data indicated that the colleges, though perhaps different, employed a similar set of those best practices that resulted in pre- and post-matriculation success. These findings reflect the heuristic nature of qualitative research. The institutions in this study appear to understand that simply putting students on a path to a degree plan is not enough. As Wyner (2019) noted when analyzing the success of 10 Aspen Prize finalists, “These colleges understand that students will fall off even the most well-designed pathways if they don’t have a range of supports” (para. 7). The best practices identified as themes in this study represent that support structure. The analysis of those best practices led to several findings that answered research question 2: What is the relationship between institutional culture and pre- and post-matriculation interventions and systems?

**Leadership Shapes Employee Morale.** Employees respond positively when they feel that the college makes efforts to involve them and to invite their participation. They buy into the programs, and this buy-in creates a culture of solidarity. Employee incentive programs offer tangible benefits for being active in campus events. This can translate into higher job satisfaction, which is reflected in the way employees interact with students.

Employees feel empowered when they have the sense that their supervisor is not only soliciting their input but encouraging them to think outside the box when it comes to student success. Lau (2010) examined how non-faculty members in higher education perceived the college’s support of them as individuals and how this perception led to a sense of empowerment that in turn affected the quality of their work. The way to ensure buy-in is to inspire a sense of camaraderie, and that is much more easily accomplished in an environment where everyone believes that their opinion matters, no matter their pay grade. This creates a culture of communication, cooperation, and equity.

People within cliques or alliances may be seen as contrarians by people outside those cliques. But when new ideas are brought forward, their proponents can be made to feel included and important when given the freedom to explore their own concepts for improving the student experience. This study found that the green light to innovate is not only for those who share the college president’s philosophy but even for those with disparate views, assuming they all share the goal of student success.

The college president has a direct impact on employee morale. Wyner (2021) noted, “Presidents are the key to building highly effective student-oriented cultures” (p. 3). As the president sets the tone for campus dialogue, it is important that they display a willingness to listen and an honest desire to see their faculty and staff thrive. People are far more willing to go the extra mile for students if they witness the president doing the same.

**Data Support Structural Changes.** In an ideal world, decisions are not made because of political influence, popular trends, or conference fads. Data should inform decisions and guide the creation of any new endeavor. New data on potential and existing students is produced

almost constantly. Every second, the average person generates 1.7 MB of data (Domo, 2020). Because college-age students are likely to be highly connected to technology, that number is even higher for their demographic (Bray, 2021). In today's world, where information is created by the second and readily available, there is no excuse for ignoring data. Cultures built around data and visible evidence will produce results. All phases of the outreach, onboarding, and advising experience should be organized around existing data, with target numbers for improvement formed by examining anticipated trajectories.

The data analyzed in this study indicate that by housing student functions in a single building, and by reducing the inevitable slow-down caused by the handling of physical paperwork, a college can streamline its processes in favor of its students. This streamlining requires a change in published operating procedures, a reconfiguration of physical assets, and an investment in document-processing software. The results are a more complete and more transparent student path from application to the first day of class and beyond.

Another important structural change is cross-training employees. Providing strong customer service is an important part of all aspects of the outreach, onboarding, and advising journey. Cross-training depends on the college building the mechanism needed to provide for that type of multi-faceted education. Professional development hours could be dedicated to cross-training, and funds directed at promoting and supporting the training sessions. Physical spaces can be organized to create an environment where cross-training happens as a matter of course as employees from different offices work together throughout the day. Cross-training simply makes things better—for the college, for the student services team, and for the student.

**High-Performing Colleges Create Systems.** The colleges in this study have created systems of pre- and post-matriculation services. By focusing intentionally on streamlining operations, cross-training employees, and consolidating offices into a single space, the colleges have built systems specifically designed to dismantle traditional barriers and to guide students into the second semester. The data indicate that these systems have achieved success in removing common obstacles along the student journey. The colleges regularly refer to these outcome data when refining their systems. The systems are supported by a cultural infrastructure built on high morale and employee buy-in. The tone of this culture is set by a proactive college leadership, specifically the president, who is a visible, approachable presence on campus. Given this, the systems at these colleges meet all four of Kim's (1999) defining characteristics of a system: the system has a shared purpose; all parts must be present for the system to function; the order in which the parts are arranged affects the system's output; and, the system is stabilized through continuous assessment of success data.

Cuofano (2022) defined systems thinking as a "holistic means of investigating the factors and interactions that could contribute to a potential outcome" (para. 1). The three colleges in this study understood the best potential outcomes to be increased student satisfaction and improved success rates in the outreach, onboarding, and advising processes. When viewed holistically in the context of the responses given in the 14 interviews, the colleges have concentrated efforts in these areas and have indeed created working systems. Though the interviewees did not refer to their efforts as a "pre- and post-matriculation system," they perceive that their college considered the student support service during these timeframes to be homogenous instead of a series of

disconnected processes. The interviewees saw that part of the student journey as a whole experience, rather than as individual pieces.

## **Implications**

The findings imply a hierarchy of factors that contribute to successful pre- and post-matriculation systems. The most important element is the community college president. The findings strongly suggest that the college president is the most potent actor in the systems these colleges have created.

Second in importance is the culture that president helps create. Culture depends on employee morale and enthusiasm—things that can be encouraged and incentivized. Culture can at times be almost palpable, and it serves as a metric when hiring new staff members. A positive and robust culture allows teamwork to thrive, and teamwork is necessary to the maintenance of the streamlined pre- and post-matriculation systems described in this study. It is not enough to have the right president. The institution must install that same kind of leadership at all levels. Grassroots initiatives started by front-line staff are valued equally to initiatives introduced from the top.

The findings imply that constant training is necessary to keep the pre- and post-matriculation systems operational. Specifically, employees must be cross-trained in a variety of student-related functions to provide a complete experience for the student. Professional development sessions can be redesigned to keep staff members current on information and skills needed in several stages of the student journey.

Data underpins the pre- and post-matriculation systems described in this study. The participants in this research confirmed that they consulted data during all phases of any initiative. This implies that an awareness of data and a willingness to adapt based on those data are necessary elements when designing and maintaining a high-functioning system.

From the moment a student submits a college application to the day they set foot in the classroom, they interface with multiple offices, departments, and service-providers. These can all be housed in a centralized location. The findings of this research imply that this kind of physical consolidation is integral to the process; in fact, it helps transform that process into a complete system.

Finally, students are the ultimate beneficiaries when college employees feel empowered to conduct their assignments autonomously. Staff on the front lines of successful pre- and post-matriculation systems are not micromanaged. The opposite seems to be true. They are encouraged to innovate, to be creative, and to discover new ways to do their jobs more efficiently or to offer students a more complete college experience.

## **Implications for Practice**

The findings of this study imply that hiring the right president is the most important factor in establishing culture and in the success of pre- and post-matriculation systems. The AACC

*Competencies for Community College Leaders* discusses the traits of successful college CEOs (American Association of Community Colleges, 2018). Several of the traits mentioned by the interviewees in this study are found within those competencies, namely *organizational culture*, *motivating others*, and *student success*. The published competencies can provide a valuable resource for colleges involved in the search for the proper presidential fit. Other markers can be found through the Aspen Institute (2013), which asserts that “the skills and qualities that made community college presidents effective when the dominant benchmark of success was access alone are no longer the same now that expectations extend to higher levels of completion, quality, and productivity” (Aspen Institute, 2013, para 5). The Institute has released an open-source guide titled *Hiring Exceptional Community College Presidents: Tools for Hiring Leaders Who Advance Student Access and Success* (Aspen Institute, 2014). The guide contains practical instruments such as rubrics for evaluating candidates, interview questions, and protocols to align student needs with hiring criteria.

In addition to documenting the importance of the presidency, this study’s description of high-functioning pre- and post-matriculation systems can provide insight for colleges wishing to improve their performance in these areas. Colleges can move away from focusing on individual components of the pre- and post-matriculation timeframe and instead move toward adopting a cooperative and unified system. One way to apply systems thinking to the outreach, onboarding, and advising processes is to view them as part of a larger system that includes the college’s curriculum, faculty, staff, resources, and students. In such a system, each process is interdependent and impacts the success of the others.

For example, a strong outreach program can attract a diverse and talented pool of students, but if the onboarding and advising processes are inadequate, students may struggle to navigate the college experience. Conversely, effective onboarding and advising processes can help students succeed, but if outreach is weak, the college may not attract enough students to sustain its programs. To address these interconnected processes, a college could apply systems thinking by considering steps that can promote a successful implementation:

**Identifying the Key Stakeholders and Their Needs.** Stakeholders include prospective students, current students, faculty, staff, and the community. By understanding the needs and expectations of each stakeholder, the college can design outreach, onboarding, and advising processes appropriate to their needs and that contribute to their success.

**Mapping the Processes and Their Interdependencies.** The college could map the pre- and post-matriculation processes to understand how they are interconnected and how they contribute to the success of the college and its students. This could help the college identify areas of strength and weakness and prioritize areas for improvement.

**Identifying Feedback Loops.** Feedback loops are important to systems thinking because they help organizations adjust their processes based on feedback from stakeholders. In this case, the college could establish assessment mechanisms to gather input from students, faculty, staff, and the community about the effectiveness of its initiative. The college can then use this feedback to improve its system.

**Engaging in Continuous Improvement.** Systems thinking emphasizes the importance of continuous quality improvement. The college can use data analytics to monitor the effectiveness of its processes and adjust it as needed to improve student outcomes. By applying systems thinking to its outreach, onboarding, and advising processes, a college can improve student success and contribute to the overall success of a pre- and post-matriculation system.

## Conclusion

The systems described in this study can be replicated. Though the cultural element is important and cannot be created without like-minded leadership in place, the basic framework of a pre- and post-matriculation system might be implemented across community colleges. As described by the participants in this study, the basic building blocks are the one-stop shop, cross-trained employees, and digitally-signed forms. The way the interview participants described their daily operations implies that those systems could happen anywhere. Yet at the same time, this remains an exploratory study designed to identify perceived best practices among individuals engaged in student success work at specific colleges, so institutions must consider their own context when they decide to implement one or more of these practices.

The dedication to service described in this study begins with a willingness to change. Compelled by evidence in the literature and trends in local data, community colleges can make the decision to transform themselves. The participants in this study provided testimonials to how those processes can be interlocked, services rendered more efficient, and barriers to student success removed.

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*Lance Hawvermale is Dean of the Humanities and Fine Arts division at Ranger College. A novelist and poet, he creates cross-disciplinary learning environments that bridge creative arts and diverse academic fields. Visit his website at [lancehawvermale.com](http://lancehawvermale.com). His email address is [hawvermale@k-state.edu](mailto:hawvermale@k-state.edu).*

*Richard A. Voorhees serves the Community College Leadership Program at Kansas State University as a major professor and professor of practice where he contributes expertise in the areas of higher education policy, analytics, student outcomes, and strategic planning to prepare future community college leaders. His email address is [ravorhees@k-state.edu](mailto:ravorhees@k-state.edu).*