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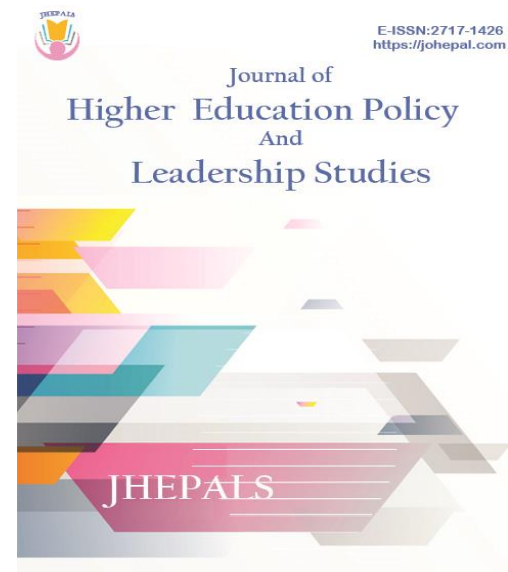
## Enrollment Management Strategies at Rural Community Colleges Resulting from the Pandemic

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## **Enrollment Management Strategies at Rural Community Colleges Resulting from the Pandemic**

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### **Abstract**

Higher education institutions around the world were impacted by the COVID-19 pandemic that began in early 2020. Because U.S. community colleges focus on two-year degrees and workforce development, they were affected differently than their four-year counterparts. This study examined how academic administrators at different rural community colleges in Virginia, United States, perceived enrollment management practices that were implemented or changed due to the pandemic. This sequential explanatory study's first phase was quantitative and measured mid- to senior-level administrators' views of how the pandemic affected their colleges' enrollment management practices. The second qualitative phase resulted in five themes surrounding COVID-related enrollment management practices: a) COVID-19 led to crisis management and operations in phases; b) managing student onboarding during COVID-19; c) COVID-19 created unique challenges for community college students; d) COVID-19 affected decision-making procedures; and e) COVID-19 resulted in work/life balance issues and COVID fatigue. Implications and future directions are provided to ensure that community college enrollment managers and policymakers understand how to continue to pivot to ensure student services are maintained or enhanced during a crisis.

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**Keywords:** Enrollment Management; COVID-19; Crisis Management; Rural Community Colleges; Decision-Making Processes

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## **Introduction**

For community colleges, which differ from their four-year counterparts (e.g., varying student demographics, funding sources, mission and foci, and student intentions) enrollment is affected by economic, employment, and social trends. In early 2020, higher education institutions world-wide were impacted by the unprecedented novel coronavirus (COVID-19). COVID-19 caused a disruption in services to students and resulted in pivots of teaching, learning, and student support. With the rapid onset of the COVID-19 pandemic, administrators at colleges had to make quick decisions that had a tremendous impact on the lives of students, faculty, staff as well as for campus infrastructures. Enrollment management practices also had to change as campus operations for student support moved to remote operations.

Enrollment at community colleges has declined 14.8% since 2019 (National Student Clearinghouse, 2021). Forty-one percent of students cancelled their plans to attend a community college during the fall semester of 2021 because of COVID-19 (U.S. Census Bureau, 2023). The mission statements of many community colleges include providing open-access admissions and curricula to meet the needs of the students and the community (Ayers, 2017; Williams et al., 2007), but this decrease in enrollment at community colleges is widening the gap of citizens in the community between those with a post-secondary education or credential and those without.

The purpose of this sequential explanatory study was to examine enrollment management practices during a crisis, COVID-19, through the viewpoint of mid- to senior-level academic administrators. From the onset of COVID-19 pandemic, mid- to senior-level administrators were in uncharted territory and did the best with what they had to keep community college enrollments, teaching practices, student needs, among other things as seamless as possible within the limitations of the pandemic.

### **Purpose Statement and Research Questions**

The purpose of this sequential explanatory study was to examine the perceptions of academic administrators at rural community colleges regarding how a crisis impacts enrollment management practices. Participants discussed their lived experiences and perceptions of changes occurring to enrollment management practices and the subsequent financial challenges resulting from the COVID-19 pandemic within rural Virginia community colleges. Additionally, we examined the procedures used to make decisions. The following research questions guided this study:

1. How do academic administrators at rural community colleges describe the changes occurring to enrollment management practices as a result of COVID-19 and the financial impact of the pandemic?
2. How are academic administrators at rural community colleges making enrollment management process decisions as a result of COVID-19?
  - a. How are the financial implications of COVID-19 affecting rural community college academic administrators' decision-making processes?

## **Enrollment Management Strategies**

### **Literature Review**

#### **Enrollment Management**

Enrollment management emerged in the 1970s to help higher education institutions manage enrollments after the Baby Boom generation started to graduate (Bontrager, 2004). Enrollment management has many definitions but its strategies center on recruitment, funding, tracking, and retaining and replacing students as they move through higher education (Dolence, 1993; Hossler & Bean, 1990; Huddleston, 2000). For community colleges, specifically, enrollment management allows them to align enrollment goals with the community college's mission, strategic plan, environment, and resources through administration, student services, curricula, and market analysis (Kirlin, 2008). Enrollment management has become a staple for community colleges and was used during the Great Recession of 2007 to 2009 to help manage declining enrollment (Schmidt, 2018) and more recently during the COVID-19 pandemic (D'Amico et al., 2022; Daniel, 2022; Ison et al., 2022).

#### **Crisis Management in Higher Education**

Institutions should be prepared for crises. Crises can be manmade or natural disasters and can be impossible to predict (L'Orange, 2010). For higher education, crises can be defined as "an event, often sudden or unexpected, that disrupts the normal operations of the institution or its educational mission and threatens the well-being of personnel, property, financial resources, and/or reputation of the institution (Zdziarski II et al., 2007, p. 16). There are three crisis cycles: pre-, during, and post- (Moerschell & Novak, 2020). To be best prepared to handle unexpected crises, institutions have crisis management, communication, and continuity plans (Moerschell & Novak, 2020), to bring operations back to a pre-crisis state after the end of the event(s). Disaster management plans are also important and have four phases: preparation, response, recovery, and mitigation; these help universities reduce the impact of a disaster, maintain day-to-day operations, repairing and restoring services, and prepare for future crises (Alexander, 2002).

Between 1966 to 2010, there were 42 fatal shootings across U.S. higher education institutions; that number grew to 190 at 152 colleges between 2001-2016 with 167 fatalities (Rock, 2019). Other fatal crises include the plane crash that killed 37 members of Marshall University's football team (Leaming, 1988) and the bridge collapse near the University of Minnesota (National Transportation Safety Board, 2008). Natural disasters have also affected higher education from hurricanes, earthquakes, floods, and other types of severe weather. Examples include Hurricane Floyd in 1999, which flooded Camp Community College in Franklin, Virginia (Herring, 2000) and the 2011 Germanna Community College earthquake (Lukasik, 2021). Violence and unrest have also affected campuses nationwide on issues like police brutality (Kingkade, 2013), racism (Reuters, 2015; Svrluga, 2015), and sexual violence (Fantz, 2016; Ganim, 2011; Wolverton, 2006).

#### **COVID-19**

The COVID-19 pandemic hit US higher education institutions like a wrecking ball. Worldwide, universities shuttered their doors, sent on-campus students home, and the institutions that could moved courses to an online format in March 2020 (Smalley, 2021). Administrators had

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to use crisis management tools on a daily basis and learn how to pivot quickly to provide information and services to maintain as little academic disruption as possible (Hart et al., 2021; Kolack et al., 2020). For community colleges, responses to COVID included distance learning and teaching strategies and resources (Kolack et al., 2020; Mazur et al., 2021), emergency response to include technology access (Hart et al., 2021), virtual laboratories for lab-based courses (Mazur et al., 2021), moving academic and student success resources online (D'Amico et al., 2022), creating basic needs resources like food pantries and clothing closets (Strayhorn, 2022), and dealing with significant decreases in students who could no longer afford education because of job loss due to the pandemic, which hit community colleges hard (Belfield & Brock, 2021).

### **Rural Community Colleges**

Community colleges are mission-based and have a comprehensive curriculum, are open-access and student-focused, have programming that fits the needs and economic development of their communities (Williams et al., 2007). Rural community colleges are continually faced with declining populations and funding (Eddy, 2013; Hicks & Jones, 2011) and have fewer employees (Hicks & Jones, 2011; Pennington et al., 2006) yet tend to be more flexible and responsive to local needs (Pennington et al., 2006; Vineyard, 1979). In Virginia, where this study was conducted, the Virginia Community College System (VCCS) funds 23 community colleges based on a performance-based funding (20%) and state allocations (80%), and 14/23 are rural community colleges (ConnectVA, n.d.).

### **Disruptions to Enrollment Management Practices and Closing the Gap**

Crises can have a potent and immediate impact on higher education institutions. It is important to have enrollment management practices that center on student retention through technology (Jones et al., 2008). Prior to the COVID-19 pandemic, community colleges tended to increase enrollment during economic hard times (Smith, 2016), however this did not happen during COVID (National Student Clearinghouse, 2021). For Fall 2020, community college enrollment fell by 8% overall (National Student Clearinghouse, 2020) and students who had planned to join community colleges declined by 41% (U.S. Census Bureau, 2023).

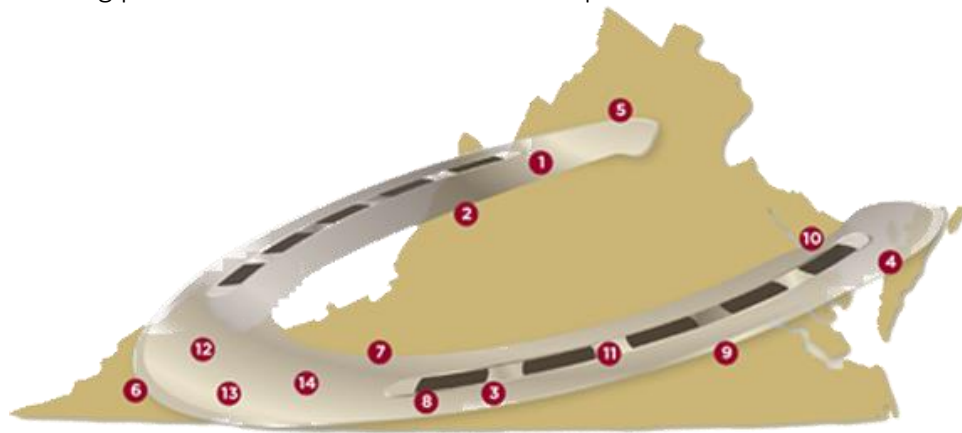
With the almost immediate shift to emergency online learning (Bird et al., 2022), colleges had to change their course deliveries, provide remote operations for student services (Garcia, 2021; Roache et al., 2020). For students, the effect was also evident – there was a decrease in course completion in VCCS courses by 6.7% (Bird et al., 2022). With the shutdown of businesses, the unemployment rate hit 14.7% (U.S. Bureau of Labor Statistics, 2020), there was a lack of childcare and increased responsibilities for children who were also at home learning (Illanes et al., 2020; Jarboe, 2022; The Hope Center, 2021), and access to technology and broadband services, especially in rural areas (Bacher-Hicks et al., 2021). There were also increased reports of mental health issues, inequity, and food insecurity, coupled with feelings of isolation and lack of engagement (Hart et al., 2021; Prefferbaum & North, 2020). Faculty also had to shift rapidly to online instruction (Bird et al., 2022, which added additional stress (Adedoyin & Soykan, 2020) and an increase in workload (Sparkman-Key et al., 2021).

## **Enrollment Management Strategies**

With the COVID-19 pandemic still affecting higher education institutions, including community colleges, it is important to understand how to best prepare for unexpected and expected crises that can affect daily operations. This study helps to advance the understanding of how rural community colleges in Virginia were affected by the pandemic.

### **Materials and Methods**

During this sequential explanatory study, we conducted the research in two phases. We implemented the COVID-19 enrollment management survey (CEMS) with mid- to senior-level administrators at the 14 rural Virginia community colleges (also known as the Virginia Rural Horseshoe; Figure 1) in Phase One. We identified 106 mid- to senior-level administrators. The CEMS is a 25-item survey developed from Black's (2003) strategic enrollment management health assessment survey. Black's survey was validated through pattern matching and rival explanations and found reliable with a 0.73490 Kendall coefficient. The CEMS measures "administrators' knowledge and perceptions regarding the institution's enrollment management practices in the areas of comprehensive system, marketing, recruitment, retention, and student services practices" (Daniel, 2022, p. 46). In Phase Two, we conducted 10 interviews with mid- to senior-level administrators at three community colleges. Interviews were semi-structured and consisted of four open-ended questions, which allowed participants to focus on individual experiences. We focused on how mid- to senior-level administrators handled enrollment management practices and decision-making processes because of the COVID-19 pandemic.



**Figure 1.** The 14 rural Virginia community colleges, also known as the Virginia Rural Horseshoe

We used the Creswell and Plano Clark (2017) four-step approach:

1. Design and implement the quantitative strand
2. Use strategies to connect the quantitative results to the qualitative strand
3. Design and implement the qualitative strand
4. Interpret the connected results.

Pseudonyms were used to protect the identify of each participant and their represented institution. Any information that could be used to identify the college or the participant was removed before the research began.

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### **Phase One**

The quantitative inquiry was a non-experimental survey designed to gather perceptions of mid- to senior-level administrators regarding enrollment management operations during COVID-19. We created the COVID-19 Enrollment Management Survey (CEMS) instrument to collect data in the quantitative inquiry. After obtaining Human Subjects exempt approval (project 1711767-1), we emailed the 28-item survey instrument to mid to senior-level administrators at the 14 rural community colleges in the Virginia Rural Horseshoe. We were able to obtain responses from at least one representative from all 14 colleges. At the conclusion of the initial data collection, we received 45 responses to the CEMS. We utilized descriptive analysis and inferential statistics to describe the distribution. Themes were developed from the statistical analysis. Dashboards were created for each college selected to participate in Phase Two. The results of the data analysis helped to inform and ensure the appropriateness of the semi-structured interview utilized in Phase Two.

### **Phase Two**

We selected three rural community colleges in Virginia. One college was selected from each enrollment category size: small, medium, large, based on fall 2020 enrollments. We then used purposeful sampling to recruit ten participants for the semi-structured interviews. The participants had various employment titles, from coordinator to vice-president, but all were involved in enrollment practices at their college. There were three participants from each small- and medium-enrollment colleges and four participants from a large-enrollment college. Interviews were conducted using online virtual meetings using Zoom. We took field notes during and after each interview. After each interview, data were transcribed verbatim, and we completed a member checking process by providing the opportunity for each participant to review their transcript for accuracy.

We used pattern matching to cluster ideas and explanation building in the analysis of the data. We established a codebook to ensure consistency in the data analysis process and loaded the data into NVivo where we used the software to thematize the data through coding the chunks of data. We used within-case and cross-cases for the theme development and established content validity by reviewing the major themes against my field notes, and document analysis. We analyzed data from each college's webpage and social media pages regarding published COVID-19 information as a secondary method of data collection. We used the data collected to verify information collected through the interviews in Phase Two and to clarify any data received by asking additional probing questions.

## **Results**

After the analysis of the data, five major themes emerged: (1) COVID-19 Led to Crisis Management and Operations in Phases, (2) Managing Student Onboarding during COVID-19, (3) COVID-19 Created Unique Challenges for Community College Students, (4) COVID-19 Affected Decision-making Procedures, and (5) COVID-19 Resulted in Work/life Balance Issues and COVID Fatigue.

## **Enrollment Management Strategies**

### **Theme One: COVID-19 Led to Crisis Management and Operations in Phases**

We discovered that mid- to senior-level administrators were handling crisis management daily for the first year and that the administrators handled crisis management for COVID-19 in phases that coincided with the semester. For most administrators, their experience in crisis management centered on weather-related events where there is an initial impact and rebuilding afterwards. None of the administrators imagined that the COVID-19 pandemic would affect the college operations for an extended amount of time. At the onset, administrators were learning how to handle crisis management in a pandemic environment that constantly had rules and regulations changing as everyone was learning the impacts of COVID-19 at the same time. One participant noted that they used scripts when communicating with students to ensure consistency of their messaging. Administrators were taking one semester at a time to find the best solution for offering classes and enrolling students. Mid- to senior-level administrators had to determine how to manage college operations in a remote environment while attempting to move the college forward with enrollments for future semesters. One participant took a bucket full of sheep hearts to a regional center to distribute to students so they could perform dissections at home for a lab-based course.

### **Theme Two: Managing Student Onboarding during COVID-19**

College administrators shared their perceptions as they discussed how they determined processes for managing student onboarding during COVID-19. At the onset of COVID-19 and the stay-at-home orders, college operations were transitioned to remote operations. Most college campuses were closed, and college support staff had to shift to working from their homes which led to some technology issues. Administrators explained that they had to get creative with ways to deliver services whether by phone, text messaging, or using virtual meetings (Zoom, WebEx, Google Meet, or Microsoft Teams). Most colleges were in the middle of the major recruiting season with the high school class of 2020. Normally the colleges would take teams of representatives into the local high schools to complete enrollment process for the upcoming fall semester. Administrators shared that the staff was unable able to go into the high schools and had to figure out ways to reach students remotely. A participant noted that they used large Zoom meetings and breakout rooms for class scheduling sessions.

### **Theme Three: COVID-19 Created Unique Challenges for Community College Students**

Mid- to senior-level administrators shared their interactions with students during COVID-19. Some students were unable to stay enrolled in classes due to family members being sick or death of family members, their children in K-12 schools having to learn remotely, loss of employment or family members loss of employment, and not having adequate internet services. One participant noted that the college made Wi-Fi accessible in the campus parking lots. Administrators shared that the adult students decided not to re-enroll in semesters based on the uncertainty of COVID-19 and remote learning. Those who did enroll had difficulties. According to one participant, students, for example, were typing papers on their cellphones because they did not have a personal computer.

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#### **Theme Four: COVID-19 Affected Decision-making Procedures**

Administrators discussed that COVID-19 decisions were handled through executive leadership and pushed down to mid-level administrators. Many decisions had to be made quickly. In order to disseminate information quickly, several college presidents held college assemblies to communicate with employees about the decisions being made at the local and state level. Due to COVID-19, college administrators monitored finances and limited spending. Some colleges had decisions delivered from the executive level down; but others had broader decision-making power and involved more senior leaders because they had to make rapid-fire decisions at times. During the reopening and social distancing requirements, administrators discussed the financial requirements related to the need to hire more adjunct faculty to support in-person classroom instruction. One participant brought up hiring freezes because funds had to be moved around where they were most needed. Participants also shared that the money coming from the Federal government was being used to help students through tuition dollars and a freeze in tuition and fees.

#### **Theme Five: COVID-19 Resulted in Work/life Balance Issues and COVID Fatigue**

Administrators discussed how the lines for work and home life were blurred due to remote operations with their employees and themselves. Some employees felt the need to be always accessible on their emails. At the onset of COVID, many college employees worked 12- to 15-hour days to assist with the transition to remote operations, and some participants described themselves as “exhausted”. COVID fatigue was described as burnout from doing more with less, working additional hours, isolation from fewer office interactions, and just waiting for the next thing to occur. A participant noted that it was hard to keep home life and work life separate because it was all happening at home. Additionally, two administrators explained that the remote instruction forced some full-time faculty to retire and some adjuncts to temporarily stop teaching. COVID was seen as an additional challenge and a “huge change” on top of all the other challenges community college administrators face daily.

#### **Findings Related to the Literature**

Administrators at rural community colleges had been operating with a mindset of *doing more with less* before COVID; the pandemic exasperated the challenges and created even more problems for enrollment management administrators. The current study aligns with the previous literature indicating the shift from face-to-face learning happened very quickly, sometimes within one week. Enrollment administrators had to shift face-to-face operations to remote operations and provide ways to support students. The present study supported the existing recent literature regarding enrollment management leaders’ efforts to use alternate methods of communication and online meetings to manage enrollment during this critical time.

A significant amount of literature exists regarding crisis management in higher education settings where the physical infrastructure is affected. Natural disasters are the primary focus of the literature surrounding physical infrastructure, such as Hurricanes Katrina and Rita (Beggan, 2010; McCullar, 2011), flood, and earthquakes (Lukasik, 2021). Manmade crises such as mass shootings, plane crashes, sexual violence, and protests may affect the campus through physical and emotional impacts to students and staff. There has

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been limited research around the H1N1 pandemic (Meyer & Wilson, 2011) and COVID-19 pandemic (Oliveira et al., 2021). COVID-19 disrupted traditional teaching, learning, and in-person support services whereby forcing higher education institutions to pivot to online instruction, learning, and support services.

Unlike a natural disaster where the event occurs and recovery can begin, the participants explained that COVID-19 was a constant evolution of new issues that required continual crisis management. Each semester, starting in March 2020 through the Spring 2022 semester, administrators included in the current study introduced a new factor of COVID-19 that they were required to implement and handle: crisis management.

Some institutions included in this study affirmed the approach where administrators had to circumvent the decentralized structure of shared governance to make expedited authoritative decisions (Gigliotti, 2020). The participants discussed the administrative leaders of the college hosting college assemblies or town halls to communicate decisions and share updated information about COVID-19 to their college communities; the present study supported the work of Moerschell and Novak (2020) which acknowledged relationships and alignment of communications. Additionally, administrators used a multitude of ways to distribute messages to faculty, staff, and students once decisions were made by administration at colleges.

Meyer and Wilson (2011) examined the H1N1 pandemic and found that higher education institutions lacked preparedness for online learning. In the current study, a participant stated that he could only relate this type of crisis to the measles outbreak while he was a residence director at a four-year university. Colleges were not fully prepared to pivot from face-to-face learning to online learning as one participant shared his college was able to convert classes from in-person to online within days. The present study supported the study of Adedoyin and Soykan (2020) in which the online learning shift was an emergency and the shift to online learning occurred within days or a week without adequate planning and designs of instruction.

Due to campus closures and the need for administrators to maintain college operations, administrators had to switch face-to-face courses to online courses. This study supported the unavoidable change of attitudes toward online learning (Adedoyin & Soykan, 2020; Oliveira et al., 2021; Ribeiro, 2020) where four colleges transitioned to HyFlex modality and all the remaining colleges offered classes asynchronously, synchronously, or both.

Student engagement was a concern of several administrators within this study. As supported in several studies, a challenge with online courses is missing relational and nonverbal cues from students who may have feelings of isolation and depressed engagement (Hart et al., 2021). In the current study, during the initial pivot, faculty were more flexible with students and vice-versa as it was a learning process for all: one participant shared it was more difficult to reach the students who were not engaged because of the remote environment. This study also supported Jenay (2022) that found students want flexible modalities that offer both interaction and engagement; higher education needs to find ways to be more attuned to student desires.

All administrators included in the current study had concerns about enrollment at their colleges. In the Virginia Community College System there has been a continual decline in credit headcounts since the 2011-2012 academic year. The prior academic year difference

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for all 23 community colleges in the system was a loss of four percent (VCCS, 2022). The VCCS system implemented a new Strategic Plan, *Opportunity 2027*, in May 2021 (VCCS, 2021), and it has specific objectives regarding review and development of the student onboarding process through an equity lens.

The current study extended the conclusions of Berezhna and Prokopenko (2020) and O'Donoghue and Ratledge (2020) in which colleges used email, phone calls, text messages, and social media to sustain education and to build informal relationships outside of traditional face-to-face advising. The present study supported the determination by Roache et al. (2020) that student support services should be offered in the same manner although the physical campus was closed. The current study also supported Garcia (2021) who found administrators said their college used outreach events to build relationships and provide information sharing.

Many of the administrators in the current study discussed the anticipation of higher enrollments during the 2020-2021 academic year due to the transition to remote learning. For most of the colleges, that did not happen. Community college enrollment is typically triggered by the economy. If there is a downturn in the economy, community college enrollment increases, as indicated by high enrollments in 2009-2010 following the so-called great recession in 2008 (Smith, 2016).

### **COVID-19 Created Unique Challenges for Community College Students**

The current study found that the shift from face-to-face teaching to online learning synchronously or asynchronously required instructors, administration, and students to become flexible to finish the spring 2020 semester. Administrators discussed their perceptions of student challenges related to technology and internet access, being a student-parent in lockdown, and enrollment management processes and terminology.

During the lockdowns and campus closures, students were unable to use Wi-Fi and computer labs inside the facilities at the colleges. The studies by Flaherty (2020), Jenay (2022), and Lederman (2020) found the lack of adequate technology impacted the students' ability to complete coursework online, which impacted their success at the college. Within this study, administrators at colleges discussed helping students acquire laptops to help complete their coursework and attend online classes. Colleges within this study received *CARES (Coronavirus Aid, Relief and Economic Security) Act* funding and some colleges helped students purchase laptops with this funding and others provided laptops for check-out. The current study supported the findings in the study by Decker (2021) where the university adapted protocols to support students during the pandemic by providing laptops purchased through *CARES* funding for check-out from the library and free-of-charge hotspots to students with the most need.

Administrators discussed providing access to students and faculty in their parking lots and working with their communities to find access to Wi-Fi. A study by Bacher-Hicks et al. (2021) found evidence of the digital divide during COVID-19. Administrators in this study discussed that some students were completing their assignments on their cellphones. The Federal Communications Commission (2020) found that 77.7% of rural areas in the U.S. had access to broadband services, compared to 98.3% in urban areas. Some college administrators in the present study helped students acquire hotspots; nonetheless, due to the remote areas where students lived, the hotspots would not always work. The current

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study supported the findings of Illanes et al. (2020), Womack et al. (2023), and Zhang et al. (2020) where students lacked the internet service to support online learning and students who don't have regular access to internet services use campus computer labs and Wi-Fi (Jenay, 2022).

Several participants in this study discussed student-parents and their ability to finish classes and enroll in future classes. This study supported the study by Jarboe (2022) that found that student-parents had increased responsibilities during COVID-19. Student-parents were now caring for children who could not go to childcare due to the lockdowns, helping their children through online learning, and managing employment loss or changes. The current study supported the findings of Jarboe (2022), which found the lack of childcare caused student-parents to miss both class sessions and important assignments.

The current study supported the findings of Ardoin (2013) which found rural students and first-generation students often had difficulty immediately understanding university/higher education jargon. One administrator discussed her experience with a parent during the enrollment process, specifically with the terminology used regarding the student id number being referred to as an employer identification number. Johnston (2019) highlighted that language used by academia can be jargon or specific lingo which causes a barrier to students understanding the enrollment management processes. The present study supported the findings of Garcia (2006) that a rapid response was required from leadership during the onset of COVID-19 to transition to online delivery of instruction. The quick decisions informed the stakeholders that leadership understood the significance of COVID-19.

None of the participants in this study discussed any fears regarding the decision-making processes at their college. In Phase Two, an administrator at a small community college discussed the processes still being upheld for shared academic governance while the other administrators at the other two colleges discussed crisis leadership at the executive level. The findings of Higginbotham and Dahlberg (2021) found decision-making processes reverted to quick unilateral decisions which deviated from the academic shared governance model. None of the administrators in the current study mentioned procedural short-cuts or faculty members upset by pandemic-related decisions-making at their institutions.

Administrators within the current study shared their initial concern over budgets at their institutions. Administrators at one of the colleges required all purchases to be approved by a vice president of the college. The current study concurred with the conclusions of Blankenberger and Williams (2020) that college budgets and expenditures were harmed by the financial and economic disruptions created by the COVID-19 pandemic. In reality, the implementation of the CARES Act and Higher Education Emergency Relief Funds (HERRF) funding saved college leaders from having to face many of the financial challenges which would have been created by hardships from COVID-19.

### **Work/life Balance Issues and COVID Fatigue**

Finally, administrators in the current study discussed the issues regarding work and life balance while working remotely, as well as fatigue and mental exhaustion from the issues caused by COVID-19. Administrators shared concerns about the number of emails and communications that they would receive in a day. The added communications caused some employees to increase their work hours or feel the need to address those communications

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that they received even after work hours had ended. The present study supported the work by Adedoyin and Soykan (2020) that indicated the additional emails added stress to faculty.

The current study also supported the findings of Sparkman-Key et al. (2021) that noted faculty did not always have all the needed technology to teach their courses from home. A participant in the current study shared a supporting story from one of the faculty members who was in the parking lot teaching a course and a student was in the car next to her. This study supported the extant literature that indicated faculty workloads increased during the onset of COVID-19 with the transition to remote work (Johnson et al., 2020; Krukowski et al., 2021; Sparkman-Key et al., 2021). Other participants shared that there were full-time faculty who decided to retire and part-time faculty who could not transition to online courses.

DeMartino and Weiser (2021) asserted that higher education administrators were able to complete their work remotely. The findings of the current study supported this suggestion. Several of the administrators discussed primarily working from home. Some administrators shared that some of their faculty and staff lacked access to broadband just like some of their students. Where possible, the administrators provided faculty and staff with hotspots so that they could transition to remote work. The present study also supported the findings by Adedoyin and Soykan (2020) regarding students and instructors with bad or no internet connections who were often denied access to online teaching and learning opportunities.

## Discussion

The purpose of this study was to understand the perceptions of how a crisis, COVID-19, impacted enrollment management practices by mid- to senior-level academic administrators at rural community colleges. Some of the biggest challenges for administrators in this study at the start of COVID-19 was the uncertainty, not knowing what changes the next day would bring, and managing the constant changes. Unlike the typical crisis events (e.g., weather-related or man-made), COVID-19 has been a prolonged crisis that forced the administrators who participated in this study to use crisis management daily at the onset while simultaneously trying to forecast future semesters based upon current trends.

Another challenge that administrators faced was the shift to fully online learning and online support services. Administrators shared how their staff tried varying ways to reach students since they no longer had the option of face-to-face contact. Students responded using various methods of communication (text, phone, email, videoconference) and one-size did not fit all. Staff members had to learn how to handle multiple text messages that may span hours to days where they could previously meet with a student for a face-to-face conversation for 15 to 30 minutes. One commonality obtained from administrators is that not everything will return as it had prior to COVID-19 (Sparkman-Key et al., 2021). For example, the move to online has resulted in more online resources for students to include advising (McCarthy & Ferreira, 2022) along with social justice efforts like decreasing the digital divide (Faturoti, 2022). As enrollment managers continue to find ways to address enrollment declines through academia and the workforce, it is important to examine how

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the changes made during COVID-19 have positively affected students, faculty, and administrators/staff to continue best practices created during the pandemic.

The onboarding process to college can be confusing for some students but the closure of campuses and shift to only online support added complications. The onboarding process to college includes (a) completing the admissions application; (b) reviewing placement into English and math courses by high school data, test scores, or placement tests; (c) discussing the program of interest and future career plans; (d) registering for first semester courses; and (e) payment of the courses to complete the enrollment process, including completing the FAFSA, scholarship or other financial aid forms. Administrators at these colleges recognized the need to provide additional support to onboarding students and the need to reduce barriers to enrolling in classes.

Administrators discussed setting up additional resources with one of their tools called Navigate to provide clear and consistent communications to students. One challenge that administrators discussed was that during the Spring 2020 through Spring 2021, colleges lost the ability to recruit and help local high school seniors complete enrollment applications, FAFSA for financial aid, and scholarship applications. High schools were closed and shifted to remote learning or if they were in-person, had stricter-than-usual restrictions on visitors to the schools. Participants in the current study discussed that staff promoted online webinars or meetings to explain processes, provide assistance, and answer questions.

Administrators discussed in this study that students and even some faculty and staff members had to use the Wi-Fi access established in parking lots to complete courses, teach courses, or complete job duties (D'Amico et al., 2022; Hu, 2020). To solve issues of inequality and disparities from the digital divide, high-performance broadband is needed for everyone in the United States (Zhang et al., 2020). Many federal initiatives have been implemented to address this serious challenge, but rural areas still lack availability for adequate broadband. The digital divide has grown, and equity gaps have widened in rural areas.

Administrators shared that students' faced challenges of childcare, access to technology resources, loss of family members, and financial issues. With the stay-at-home orders, many students lost jobs or had family members in their household lose jobs. Some students had to pick up multiple jobs to support their family while others struggled to find jobs. Each student is different and may need a different level of support than others. Jarboe (2021) recommended providing support to student-parents as they had to assist with helping their children complete assignments through remote learning and share technology resources with their children. Moreover, the mental health of students became an overwhelming concern during COVID-19 for students who could be impacted by feelings of insecurity, isolation, emotional distress, substance abuse, fear, and insomnia (Pfefferbaum & North, 2020).

## **Conclusion**

COVID-19 challenged rural community college leaders in their role to support the local community and the college. The shift to remote learning and operations added complexity to the decision-making processes of senior leadership at community colleges whose responsibility is to ensure that the mission is fulfilled (Ayers, 2017) and provide open-access admissions to the students (Vaughan, 1997). Many additional challenges are ahead for mid-

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to senior-level administrators including addressing continued enrollment declines. Administrators need to be ready to pivot on a moment's notice based on data trends and diligent in efforts to decrease the digital divide and to provide low-income rural Americans with the tools necessary to increase economic and social mobility while advancing social justice through equal opportunities. COVID-19 has taken a physical and emotional toll, but the response to the pandemic can help community college leaders do more to make educational goals attainable, improve lives, reduce equity gaps, and improve social mobility of students in rural communities.

### **Implications for Practice**

The findings of the current study indicate how COVID-19 impacted enrollment management practices at rural community college through the perceptions of mid- to senior-level administrators. Implications for practice by community college leaders and policymakers follow.

#### **Ready to Pivot**

COVID-19 has been unique in terms of the time that it has impacted higher education operations. Through the multiple phases of COVID-19, administrator responses required (a) quick transition to remote teaching, learning, and operations; (b) plans to reopen that mandated colleges to implement social distancing, protective shields, masks, and contact tracing; (c) having vaccines available and the requirements around them for faculty and staff of community colleges; (d) readiness to shift back to fully remote operations and learning for short periods of time due to additional variants of COVID-19; and (e) plans to fully reopen without any protective measures while still monitoring for any on-campus outbreaks and local trends. Each of these phases, required leaders to look at college operations to determine if the college was meeting the mission and ensuring student success.

College leaders need to be ready to pivot by transitioning to online learning instruction and student support if (more likely when) another major outbreak or future crisis occurs. Strategic and crisis planning need to include ways to be prepared and ready to pivot to online instruction and support. Future strategic planning could help college leaders reduce fears of students and other constituency groups by effectively including measures to be ready for a crisis before it occurs. The necessary infrastructure must be in place (Sparkman-Key et al., 2021), key personnel must be identified and trained through continuous professional development, and leaders need to plan to anticipate future disruptions in community college operations.

COVID-19 has highlighted the need for more education regarding crisis management including determining how leaders will address the various types of crises such as weather-related, gun violence, biological, race-related disruptions, and health pandemics. It is impossible to precisely address each type of crisis individually, but expansion of crisis training beyond outdated weather-related crises is needed. Many organizations and associations have now added professional development and training for leading through a crisis. There is a need for these trainings to be expanded and continuously updated to cover additional variations of crises. Higher education doctoral programs which prepare community college leaders, state system office trainings, and American Association of

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Community Colleges should review training and curriculum provided on crises and develop additional training to help ensure that leaders are prepared for crises which may occur more often in the future.

### **Review Onboarding Processes and Supports**

Community college leaders should review the onboarding processes for prospective students entering in the enrollment management funnel from being a prospect to enrolling in classes at their college. A successful onboarding process will help students succeed by completing the class or the credential they need. The review should include comprehensive reflection on the data to determine if and where students are being lost in the enrollment management process. There are many points in the funnel where a student could get lost such as issues with completing the application, understanding college jargon or language, understanding pre-requisites for courses, applying for financial aid, or payment processes. College leaders should determine where barriers exist and attempt to provide a standardized solution or remove barriers where possible.

College leaders need to learn the best methods to communicate with and provide services to different generations. Many Generation Z students prefer to text or chat versus talking over the phone and want to obtain information quickly. Generation Z is the first generation to have full access to a smartphone and not knowing anything different. The mission and values of the college should be reflected in the communications and the communications should be dynamic in nature. Now with remote operations, students are willing to meet with student services staff by video conference, if they have the technology to support it.

Community college leaders should review existing technology and implement strategies to help provide automated support to students. Technology that could provide automated support might include Customer Relationship Management (CRM) and AI Chatbots. The CRM could help staff and managers easily identify prospective and applied students to the college, provide ways to monitor ongoing communications with the student, and track where the student is within the pipeline. The AI Chatbot could help staff and students by answering general questions simulating a human-like conversation. Providing additional support through technology can help leaders to provide services when the students need them and help the students be successful with starting at the college.

### **Communications**

College leaders should review all communications from the college to various constituencies to determine if the communications contain education-related jargon or language that would be difficult for first-generation students, their parents, or other student groups to understand. The communications should be reviewed for length, how the communications are sent, and the frequency of the communications. College leaders should concentrate on identifying ways to let students know the barriers they may face, the steps that they need to complete, and how the college can help them achieve success.

Communication is particularly important at rural community colleges which have limited staff resources and often have employees who wear multiple hats, leaving them stretched and limited in their ability to get all the necessary tasks completed. To be able to assist students through the enrollment funnel pipeline, college leaders should advocate for

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more funding for advisors to assist first-generation college students with onboarding and additional wrap-around services. Additional advisors could assist with getting these students through the onboarding processes and ensure they have a full understanding of the degree program in which they plan to or have enrolled in, as well as the support available to them to finish their credential.

College leaders also need to communicate clearly about how decisions are made regarding how classes can and will be taught to students. The shift to remote learning added additional instructional modalities that colleges had not been using (e.g., synchronous, asynchronous, HyFlex, and hybrid models), and students need clear and consistent messaging on instructional methodologies. College leaders should review their class scheduling processes for flexibility to determine if classes are available when students want to take them, the duration of the classes (8-week, 12-week, or standard 15-week sessions), and how well faculty are trained to deliver curricula in these formats.

### **Digital Divide**

The digital divide is not a new concept for rural community college leaders, as they have been providing open computer labs and resources for students who take distance learning classes. The COVID-19 pandemic, however, made this a top priority. Many low-income students attend community college and have very limited access to quality internet. The digital divide still exists, and in some rural places, has expanded like the use of parking lot hotspots to access Wi-Fi for teaching or taking classes. Students and instructors had to find ways to continue instruction and learning by finding adequate internet access.

The findings of the current study indicate that administrators need to continue to advocate for their communities to have access to quality and affordable broadband in their students' homes so they can complete their education goals. COVID-19 has reinforced the concept that quality internet access is a necessity, not a luxury (Jones & Reinecke, 2017). Some academics have declared that quality internet should be classified as a basic, fundamental utility, in the same class as electrical and telephone service (Beard et al., 2017; Jones & Reinecke, 2017). State policy makers should adopt policies which will guarantee equal access to quality and affordable broadband regardless of the location or size of the community in which a citizen lives.

Many students attending rural community are living in poverty. Helping a student earn a degree or credential is one way to help remove the student from the cycle of generational poverty (Williams & Nourie-Manuele, 2018). A student who has reached their academic goals is more likely to be active in the community. Research has shown that if a student is on welfare, obtaining a degree improves the likelihood that student will not return to public assistance (Aziz, 2015; Belfield & Bailey, 2011). The community college's mission is to provide education to its residents, thus assisting educated residents to obtain jobs to support the community economically. More educated citizens will also help attract new businesses to the community.

### **Work/Life Balance**

COVID-19 exasperated the need for higher education employees to be available more often and in different roles to help students. During the emergency remote operations, employee fatigue was discussed by participants in this study as well as the difficulty of maintaining the

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balance of the lines between work and personal lives. College leaders should look at policies to address work/life balance for employees. A typical work schedule of 8 a.m. to 5 p.m. may not be the best solution to support college operations as college's review operations in a post-pandemic environment. College leaders should evaluate the timing of when student concerns arise, review the best operational hours of employees to address the student needs, and determine available options of technology to assist with supporting students. Leaders should define expected working hours of employees and define the acceptable time when student concerns need to be answered. The expectations for faculty response should be indicated in the course syllabus.

College leaders could plan to support employees by providing workshops or scheduled meetings to help reduce stress such as coffee hours, mediations sessions, writing workshops, and supporting wellness activities (Sparkman-Key et al., 2021). Additionally, college leaders should focus on wellness programs which may have a correlation to positive impacts on productivity (Sparkman-Key et al., 2021). These trainings and programs could help employees better serve students and help with overall student success. College leaders should review mental health services for their employees. Employees may have experienced mental health related issues from the pandemic and may still be dealing with ways to cope. College leaders should review training opportunities that will help employees deal with trauma or mental health related issues in their classroom, on-campus, or while providing services to students.

## **Recommendations for Further Research**

COVID-19 impacted colleges and universities around the world. The lasting impacts of COVID-19 to education will be felt for years to come, particularly in rural places. Additional research on how the digital divide impacts rural community college enrollment would be beneficial. In this regard, rural college leaders would want to know if the digital divide has increased equity gaps in their service regions. An additional recommendation is to conduct a study to determine student perceptions regarding the marketing and communications section of the CEMS to see if it is consistent with administrator perceptions in this study. Finally, a future exploration of this topic could follow a longitudinal design to examine enrollment management practices during a crisis and in the subsequent enrollment years.

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## **References**

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*, 31(2), 863-875. <https://doi.org/10.1080/10494820.2020.1813180>
- Alexander, D. (2002). *Principles of emergency planning and management*. Oxford University Press.
- Ardoin, M. S. (2013). *Learning a different language: Rural students' comprehension of college knowledge and university jargon* (Publication No. 3575594) [Doctoral dissertation, North Carolina State University]. ProQuest Dissertations and Theses Global. <http://www.lib.ncsu.edu/resolver/1840.16/8433>
- Ayers, D. F. (2017). Three functions of the community college mission statement. *New Directions for Community Colleges*, 2017(180), 9-17. <https://doi.org/10.1002/cc.20276>
- Aziz, A. (2015). The operational value of human capital theory and cultural capital theory in social stratification. *Citizenship, Social and Economics Education*, 14(3), 230-241. <https://doi.org/10.1177/2047173416629510>
- Bacher-Hicks, A., Goodman, J., & Mulhern, C. (2021). Inequality in household adaptation to schooling shocks: Covid-induced online learning engagement in real time. *Journal of Public Economics*, 193, 104345. <https://doi.org/10.1016/j.jpubeco.2020.104345>
- Beard, T. R, Ford, G. S., & Stern, M. (2017). Private solutions to broadband adoption: An economic analysis. *Federal Communications Law Journal*, 69(1), 1-24. <http://www.fclj.org/wp-content/uploads/2017/04/69.1.1-T.-Randolph-Beard-et-al.pdf>
- Beggan, D. M. (2010). The impact of Hurricane Rita on an academic institution: Lessons learned. *Disasters*, 34(1), 93-111. <https://doi.org/10.1111/j.1467-7717.2009.01116.x>
- Belfield, C. R., & Bailey, T. (2011). The benefits of attending community college: A review of the evidence. *Community College Review*, 39(1), 46-68. <https://doi.org/10.1177/0091552110395575>
- Belfield, C., & Brock, T. (2021, March 02). Community colleges and the COVID-19 pandemic: Which states have been hit hardest by enrollment disruptions? *The Mixed Methods Blog*. <https://ccrc.tc.columbia.edu/easyblog/community-colleges-covid-19-states-hardest-hit.html>
- Berezhna, S., & Prokopenko, I. (2020). Higher education institutions in Ukraine during the Coronavirus, or COVID-19, outbreak: New challenges vs new opportunities. *Revista Românească Pentru Educație Multidimensională*, 12(1Sup2), 130-135. <https://doi.org/10.18662/rrem/12.1sup2/256>

## **Enrollment Management Strategies**

- Bird, K. A., Castleman, B. L., & Lohner, G. (2022). Negative impacts from the shift to online learning during the COVID-19 crisis: Evidence from a statewide community college system. (EdWorkingPaper: 20-299). <https://doi.org/10.26300/gx68-rq13>
- Black, J. C. (2003). *The enrollment management framework* (Publication No. 3113329) [Doctoral dissertation, University of North Carolina at Greensboro]. ProQuest Dissertation and Theses database. <https://www.proquest.com/dissertations-theses/enrollment-management-framework/docview/305312068/se-2>
- Blankenberger, B., & Williams, A. M. (2020). COVID and the impact on higher education: The essential role of integrity and accountability. *Administrative Theory & Praxis*, 42(3), 404-423. <https://doi.org/10.1080/10841806.2020.1771907>
- Bontrager, B. (2004). Enrollment management: An introduction to concepts and structures. *College and University Journal*, 79(3), 11-16. [https://www.aacrao.org/research-publications/quarterly-journals/college-university-journal/archived-c-u-issues/volume-79/c-u-archive/c-u-vol.-79-no.-3-winter-2004-\(.pdf\)](https://www.aacrao.org/research-publications/quarterly-journals/college-university-journal/archived-c-u-issues/volume-79/c-u-archive/c-u-vol.-79-no.-3-winter-2004-(.pdf))
- ConnectVA. (n.d.). *Rural Virginia horseshoe initiative*. <https://www.connectva.org/programs/rural-virginia-horseshoe-initiative/>
- Coronavirus Aid, Relief, and Economic Security Act, S. 3548, 116th Cong., 2d Sess. (2020) (enacted). <https://www.congress.gov/116/bills/s3548/BILLS-116s3548is.pdf>
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3<sup>rd</sup> ed.). SAGE Publications.
- D'Amico, M. M., Atwell, A. K., Spriggs, J. N., & Cox, J. A. (2022). Are we doing enough? COVID responses from urban and rural community colleges. *Community College Journal of Research and Practice*, 46(1-2), 12-19. <https://doi.org/10.1080/10668926.2021.1961925>
- Daniel, R. C. (2022). Enrollment management strategies as a result of COVID-19 at rural community colleges. [Doctoral dissertation, Old Dominion University]. ProQuest Dissertation and Theses database. <https://doi.org/10.25777/jj7g-nf69>
- Decker, E. N. (2021). Reaching academic library users during the COVID-19 pandemic: New and adapted approaches in access services. *Journal of Access Services*, 18(2), 77-90. <https://doi.org/10.1080/15367967.2021.1900740>
- DeMartino, L., & Weiser, S. G. (2021). Administrative leadership in times of a global health crisis: Voices and images from the field. *Frontiers in Education*, 6: 617857. <https://doi.org/10.3389/feduc.2021.617857>
- Dolence, M. G. (1996). *Strategic enrollment management: Cases from the field*. American Association of Collegiate Registrars and Admissions Officers.
- Eddy, P. L. (2013). Developing leaders: The role of competencies in rural community colleges. *Community College Review*, 41(1), 20-43. <https://doi.org/10.1177/0091552112471557>
- Fantz, A. (2016, June 07). Outrage of 6-month sentence for Brock Turner in Stanford rape case. *Cable News Network*. <http://www.cnn.com/2016/06/06/us/sexual-assault-brock-turner-stanford/>
- Faturoti, B. (2022). Online learning during COVID19 and beyond: A human right based approach to internet access in Africa. *International Review of Law, Computers & Technology*, 36(1), 68-90. <https://doi.org/10.1080/13600869.2022.2030027>
- Federal Communications Commission. (2020). 2020 Broadband deployment report. <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2020-broadband-deployment-report>
- Flaherty, C. (2020, April 22). Grading for a pandemic: How lenient, or not, should professors be with students right now? *Inside Higher Ed*. <https://www.insidehighered.com/news/2020/04/23/how-lenient-or-not-should-professors-be-students-right-now>

**Daniel, R. C., Williams, M. R., & Bullington, K. E.**

- Ganim, S. (2011, March 31). Jerry Sandusky, former Penn state football staffer, subject of grand jury investigation. *Pennlive: The Patriot-News*.  
[https://www.pennlive.com/midstate/2011/03/jerry\\_sandusky\\_former\\_penn\\_sta.html](https://www.pennlive.com/midstate/2011/03/jerry_sandusky_former_penn_sta.html)
- Garcia, R. L. (2021). *Addressing education inequities amidst a global pandemic: A case study of a student services division at a California community college* (Publication No. 28647770) [Doctoral dissertation, Pepperdine University]. ProQuest Dissertations and Theses database.
- Gigliotti, R. A. (2020). Looking beyond COVID-19: Crisis leadership implications for chairs. *The Department Chair*, 31(1), 14-15. <https://doi.org/10.1002/dch.30330>
- Hart, C. M. D., Xu, D., Hill, M., & Alonso, E. (2021). COVID-19 and community college instructional responses. *Online Learning*, 25(1), 41-69. <https://doi.org/10.24059/olj.v25i1.2568>
- Herring, D. (2000, March 01). Hurricane Floyd's lasting legacy: Assessing the storm's impact on the Carolina coast. *NASA Earth Observatory*.  
<https://earthobservatory.nasa.gov/features/FloydIntro>
- Hicks, C. J., & Jones, S. J. (2011). At issue: Survival tactics for small, rural-serving community colleges. *Community College Enterprise*, 17(2), 28-45.  
<https://home.schoolcraft.edu/cce/17.2.28-45.pdf>
- Higginbotham, E., & Dahlberg, M. L. (2021). *The Impact of COVID-19 on the Careers of Women in Academic Sciences, Engineering, and Medicine*. The National Academies Press.  
<https://doi.org/10.17226/26061>
- Hossler, D., & Bean, J. P. (1990). *The Strategic Management of College Enrollments*. Jossey-Bass.
- Hu, X. (2020). Building an equalized technology-mediated advising structure: Academic advising at community colleges in the post-COVID-19 era. *Community College Journal of Research and Practice*, 44(10-12), 914-920. <https://doi.org/10.1080/10668926.2020.1798304>
- Huddleston Jr., T. (2000). Enrollment management. *New Directions for Higher Education*, 2000(111), 65-73. <https://doi.org/10.1002/he.11107>
- Illanes, P., Law, J., Mendy, A., Sanghvi, S., & Sarakatsannis, J. (2020, March 30). Coronavirus and the campus: How can US higher education organize to respond? *McKinsey & Company: Insights*.  
<https://www.mckinsey.com/industries/education/our-insights/coronavirus-and-the-campus-how-can-us-higher-education-organize-to-respond>
- Ison, M. P., Cichetti, E., Tolle, M., Hernandez, T. (2022). One college program, seventy different campuses: Dual enrollment, community colleges, and the unique challenges faced during the COVID-19 pandemic. *Community College Journal of Research and Practice*, 46(1-2), 85-92.  
<https://doi.org/10.1080/10668926.2021.1974604>
- Jarboe, M. Y. (2021). *Experiences of low-income student-parents at a community college during the Coronavirus (COVID-19) pandemic* (Order No. 28864690). Available from ProQuest Dissertations and Theses Global. (2622982055). <https://doi.org/10.25777/m56t-8c92>
- Jenay, R. (2022, October 03). 2022 students and technology report: Rebalancing the student experience. *EDUCAUSE*. <https://library.educause.edu/resources/2022/10/2022-students-and-technology-report-rebalancing-the-student-experience>
- Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning*, 24(2), 6-21.  
<https://doi.org/10.24059/olj.v24i2.2285>
- Johnston, A. (2019, June 14). One surprising barrier to college success: Dense higher education lingo. *The Hechinger Report*. <https://hechingerreport.org/one-surprising-barrier-to-success-in-college-understanding-higher-education-lingo/>
- Jones, C., & Reinecke, D. (2017). Infrastructure and democracy. *Issues in Science and Technology*, 33(2), 24. <https://issues.org/infrastructure-and-democracy/>

## Enrollment Management Strategies

- Jones, J., Das, N., Huggins, D., & Mcneely III, S. (2008). Enrollment management issue analysis: Operating in a post-Katrina higher education environment. *Community College Journal of Research and Practice*, 32(3), 167-183. <https://doi.org/10.1080/10668920701875859>
- Kingkade, T. (2013, January 10). UC Davis pepper spraying saga is finally over with judge approving settlement. *The Huffington Post*. [https://www.huffingtonpost.co.uk/entry/uc-davis-pepper-spray-settlement\\_n\\_2450631](https://www.huffingtonpost.co.uk/entry/uc-davis-pepper-spray-settlement_n_2450631)
- Kirlin, J. (2020). COVID-19 upends pandemic plan. *The American Review of Public Administration*, 50(6-7), 467-479. <https://doi.org/10.1177/0275074020941668>
- Kolack, K., Hemraj-Benny, T., & Chauhan, M. (2020). Community college chemistry instruction and research in the time of COVID-19. *Journal of Chemical Education*, 97(9), 2880-2894. <https://doi.org/10.1021/acs.jchemed.0c00700>
- Krukowski, R. A., Jagsi, R., & Cardel, M. I. (2021). Academic productivity differences by gender and child age in science, technology, engineering, mathematics, and medicine faculty during the COVID-19 pandemic. *Journal of Women's Health*, 30(3), 341-347. <https://doi.org/10.1089/jwh.2020.8710>
- L'Orange, H. P. (2010). Impact of incidents on enrollments at higher education institutions. *New Directions for Institutional Research*, 2010(146), 111-118. <https://doi.org/10.1002/ir.346>
- Leaming, J. (1988, November 15). Tragedy remembered, those lost honored. Memorial service for those killed in the '70 plane crash. *The Parthenon*, 90(39), 1. <https://mds.marshall.edu/cgi/viewcontent.cgi?article=3626&context=parthenon>
- Lederman, D. (2020, March 27). College presidents fear financial -- and human -- toll of coronavirus on their campuses. *Inside Higher Ed*. <https://www.insidehighered.com/news/survey/college-presidents-fear-financial-and-human-toll-coronavirus-their-campuses>
- Lukasik, T. (2021, August 23). Ten-year anniversary of the 2011 Virginia earthquake: The most widely felt earthquake to rock the eastern U.S. *Building Safety Journal*. <https://www.iccsafe.org/building-safety-journal/bsj-dives/ten-year-anniversary-of-the-2011-virginia-earthquake-the-most-widely-felt-earthquake-to-rock-the-eastern-u-s/>
- Mazur, C., Creech, C., Just, J., Rolle, C., Cotner, S., & Hewlett, J. (2021). Teaching during COVID-19 times: A community college perspective. *Journal of Microbiology and Biology Education*, 22(1), 1-10. <https://doi.org/10.1128/jmbe.v22i1.2459>
- McCarthy, L., & Ferreira, D. (2022). Recommendations for community colleges in a post-COVID-19 world: What worked, what did not and assorted commentary on lessons learned in one community college. *Community College Journal of Research and Practice*, 46(1-2), 134-137. <https://doi.org/10.1080/10668926.2021.1968543>
- McCullar, S. L. (2011). *Crisis management post Hurricane Katrina: A qualitative study of a higher education institution's administrators' response to crisis management* (Order No. 29119847). Available from ProQuest Dissertations & Theses Global. (2676540118). <https://www.proquest.com/dissertations-theses/crisis-management-post-hurricane-katrina/docview/2676540118/se-2>
- Meyer, K. A., & Wilson, J. L. (2011). The role of online learning in the emergency plans of flagship institutions. *Online Journal of Distance Learning Administration*, 14(1). [https://ojdla.com/archive/spring141/meyer\\_wilson141.pdf](https://ojdla.com/archive/spring141/meyer_wilson141.pdf)
- Moerschell, L., & Novak, S. S. (2020). Managing crisis in a university setting: The challenge of alignment. *Journal of Contingencies and Crisis Management*, 28(1), 30-40. <https://doi.org/10.1111/1468-5973.12266>
- National Student Clearinghouse (2021). Stay informed with the latest enrollment information. <https://nscresearchcenter.org/stay-informed/>
- National Student Clearinghouse. (2020, September 24). Undergraduate enrollment down 2.5% and graduate students up 3.9%, compared to Sept. 2019.

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<https://www.studentclearinghouse.org/blog/undergraduate-enrollment-down-2-5-and-graduate-students-up-3-9-compared-to-sept-2019/>

- National Transportation Safety Board. (2008). Highway incident report: Collapse of the I-35W highway bridge, Minneapolis, Minnesota, August 1, 2007. NTSB/HAR-08/03, PB2008-916203. <https://www.nts.gov/investigations/AccidentReports/Reports/HAR0803.pdf>
- O'Donoghue, R., & Ratledge, A. (2020). Supporting college students remotely: Adapting the evidence for 2020 and beyond. *Issue Focus*. <https://www.mdrc.org/publication/supporting-college-students-remotely>
- Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*, 52(4), 1357-1376. <https://doi.org/10.1111/bjet.13112>
- Pennington, K., Williams, M. R., & Karvonen, M. (2006). Challenges facing rural community colleges: Issues and problems today and over the past 30 years. *Community College Journal of Research and Practice*, 30(8), 641-655. <https://doi.org/10.1080/10668920600746086>
- Pfefferbaum, B., & North, C. S. (2020). Mental health and the COVID-19 pandemic. *The New England Journal of Medicine*, 383(6), 510-512. <https://doi.org/10.1056/NEJMp2008017>
- Reuters (2015, June 12). Man to plead guilty in incident with noose on Univ. of Mississippi statue. *Reuters*. <https://www.reuters.com/article/us-usa-mississippi-noose/man-to-plead-guilty-in-incident-with-noose-on-univ-of-mississippi-statue-idUSKBN00T02Y20150613>
- Ribeiro, R. (2020, April 14). How university faculty embraced the remote learning shift. *EdTech*. <https://edtechmagazine.com/higher/article/2020/04/how-university-faculty-embraced-remote-learning-shift>
- Roache, D., Rowe-Holder, D., & Muschette, D. (2020). Transitioning to online distance learning in the COVID-19 era: A call for skilled leadership in higher education institutions (HEIs). *International Studies in Education Administration*, 48(1), 103-110. <https://edu.thecommonwealth.org/wp-content/uploads/2020/11/ISEA-2020-481.pdf>
- Rock, A. (2019, January 15). College campus shooting statistics you should know. *Campus Safety*. <https://www.campus safetymagazine.com/university/college-campus-shooting-statistics/>
- Schmidt, E. P. (2018). Postsecondary enrollment before, during, and since the great recession. *Current Population Reports*. U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2018/demo/P20-580.pdf>
- Smalley, A. (2021, March 22). Higher education responses to coronavirus (COVID-19). *NCSL*. <https://www.ncsl.org/education/higher-education-responses-to-coronavirus-covid-19>
- Smith, L. (2016). *Effects of a support program on retention rates for African-American male community college students: An action research study* (Publication No. 10151216) [Doctoral dissertation, Capella University]. ProQuest Dissertations and Theses Database.
- Sparkman-Key, N., Dice, T. F., & Gantt, A. C. (2021). Institutional responses to the COVID-19 pandemic: Faculty and administrator experiences. *Current Issues in Education*, 22(3), 1-25. <https://doi.org/10.14507/cie.vol22iss3.1993>
- Strayhorn, T. (2022). Lessons learned from institutional responses to COVID-19: Evidenced-based insights from a qualitative study of historically Black community colleges. *Community College Journal of Research and Practice*, 46(1-2), 30-40. <https://doi.org/10.1080/10668926.2021.1975173>
- Svrluga, S. (2015, March 27) OU: Frat members learned racist chant at national SAE leadership event. *The Washington Post*. [http://www.washingtonpost.com/ou-investigation-sae-members-learned-racist-chant-at-national-leadership-event/2015/03/27/9caa5442-d032-4396-9662-0981688903f0\\_story.html](http://www.washingtonpost.com/ou-investigation-sae-members-learned-racist-chant-at-national-leadership-event/2015/03/27/9caa5442-d032-4396-9662-0981688903f0_story.html)

## **Enrollment Management Strategies**

- The Hope Center. (2021). #Realcollege 2021: Basic needs insecurity during the ongoing pandemic. <https://www.luminafoundation.org/wp-content/uploads/2021/04/real-college-2021.pdf>
- U.S. Bureau of Labor Statistics. (2020). Labor force statistics from the current population survey. <https://data.bls.gov/timeseries/LNS14000000>
- U.S. Census Bureau. (2023, August 23). Measuring household experiences during the Coronavirus pandemic. <https://www.census.gov/data/experimental-data-products/household-pulse-survey.html>
- Vaughan, G. B. (1997). The community college's mission and milieu: Institutionalizing community-based programming. In E. A. Boone (Ed.), *Community Leadership through Community-Based Programming* (pp. 21-58). Community College Press.
- Vineyard, E. E. (1979). The rural community college. *Community College Review*, 6(3), 29-45. <https://doi.org/10.1177/009155217900600305>
- Virginia Community College System. (2021). Opportunity 2027 strategic plan. [https://www.vccs.edu/wp-content/uploads/2021/03/Opportunity-2027\\_Final-Draft\\_3-18-21.pdf](https://www.vccs.edu/wp-content/uploads/2021/03/Opportunity-2027_Final-Draft_3-18-21.pdf)
- Virginia Community College System. (2022). Statistics. <https://www.vccs.edu/statistics/>
- Williams, M. R., & Nourie-Manuele, M. (2018). The role of the community college in addressing poverty. *New Directions for Community Colleges*, 2018(184), 17-26. <https://doi.org/10.1002/cc.20324>
- Williams, M. R., Pennington, K. L., Couch, G., & Dougherty, M. A. (2007). Preparing rural community college professionals. *Community College Enterprise*, 13(1), 23-35. <https://www.schoolcraft.edu/pdfs/cce/13.1.23-35.pdf>
- Wolverton, B. (2006, April 21). Duke crisis ripples through college sports. *The Chronicle of Higher Education*, 52(33), A48. <https://www.chronicle.com/article/duke-crisis-ripples-through-college-sports/>
- Womack, T., Bullington, K. E., & Sasso, P. A. (2023). A descriptive quantitative exploration of college students of promise during the COVID-19 pandemic. *Journal of Underrepresented and Minority Progress*, 7(1), 48-70. <https://doi.org/10.32674/jump.v7i1.4591>
- Zdziarski II, E. L., Dunkel, N. W., Rollo, J. M., & Associates. (2007). *Campus Crisis Management: A Comprehensive Guide to Planning, Prevention, Response and Recovery*. Jossey-Bass.
- Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 outbreak. *Journal of Risk and Financial Management*, 13(3), 55. <https://doi.org/10.3390/jrfm13030055>

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