Lessons Learned: Intrusive Student Success Initiatives at a Regional University Campus in the Wake of a Natural Disaster

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LESSONS LEARNED: INTRUSIVE STUDENT SUCCESS INITIATIVES AT A REGIONAL UNIVERSITY CAMPUS IN THE WAKE OF A NATURAL DISASTER

By

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This dissertation is dedicated to my daughters, Bella and Emmy,
and is in memory of my great grandmother, Joan Snead.

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ABSTRACT

The purpose of this Dissertation in Practice was to look at the patterns and trends of student enrollment, course hour load, and academic outcomes and explore student success interactions after the environmental shock of a natural disaster. Forming the setting for this study was a regional, commuter, university campus and its largely nontraditional student body. While the study was primarily qualitative, a sequential, mixed methods design was used to answer the two research questions. Using descriptive statistics, the initial quantitative piece explored the different indicators and outcomes of students enrolled and established a backdrop for the more in-depth, qualitative component. Interviews were conducted with both student and staff participants regarding post disaster interactions and a component analysis resulted in the identification of three central domains. These domains led to the development of six major summary themes. Findings underscore the value of communicating post disaster and being able to tell our stories, the reliance on communication technology and the importance of planning for long term disruptions, the difficulty that academic institutions face in planning for disasters, and the valuable lessons that can be learned by studying the actions of previous institutions and organizations who experienced a disaster. Implications for universities' disaster planning and preparation including challenges, resiliency, and adaptability will also be discussed.

CHAPTER 1

PROBLEM OF PRACTICE, PURPOSE, AND RESEARCH QUESTIONS

On October 10, 2018, a category 5 hurricane named Michael struck the gulf coast region devastating Florida State University Panama City (FSUPC) and the surrounding community. Residents of the area including students, faculty and staff of FSUPC emerged from the rubble as unwilling members of Major Disaster Declaration DR-4399 (Federal Emergency Management Agency, 2018). In a matter of hours, homes were leveled, community landmarks erased, schools gutted, and families made homeless. In the days that followed, FSUPC administration worked to remedy what would later be estimated to be 8 million dollars in damage to the campus (D. Nix, personal communication, January 8, 2019). Although Hurricane Michael decimated the surrounding rural community and neighboring counties, disrupted operations on campus, displaced students and employees, and increased challenges for all involved—the campus reopened only 19 days post-storm. What unfolded in the weeks following the disaster, as the campus struggled to support both the community and its students, is a variation of academic advising that looked very different in the wake of the storm. The interactions that occurred may have played an important role for students during the recovery effort. However, this academic advising has yet to be studied in the context of an academic institution recovering from a major natural disaster. This study aimed to adequately capture the invaluable lessons that can be learned.

Florida State University Panama City (FSUPC) faculty and staff interact with students in ways that support a comprehensive, campus-wide awareness of each student's progress and status. For example, students are assigned an advisor, receive advising from program faculty, and interact with various levels of administrative staff—including the campus Dean. Such techniques are common to many of the established advising methodologies but most notably align with Intrusive advising (now more widely called proactive advising) which is defined as "deliberate intervention to enhance student motivation, using strategies to show interest and involvement with students, intensive advising designed to increase the probability of student success, working to educate students on all options, and approaching students before situations develop" (Varney, 2012, para. 3). Many studies have demonstrated that advisors are key for

creating meaningful, caring, professional connections with students (including nontraditional, older students) and this bond has been successfully accomplished through intrusive advising practices (Ohrablo, 2017; Sutton, 2016).

Over the past four decades, the field of advising has cemented itself as an impactful part of a student's academic journey (Crookston, 1994; Glennen, 1975; O' Banion, 2012) and has increasingly become a focal point over its benefits for various demographics (Applegate, 2012; Vianden & Barlow, 2015). Advising plays a critical role in the recipients' increased likelihood for success and although, it is important for all students, it is especially so for at-risk populations such as transfer and nontraditional students (Austin, Cherney, Crowner, & Hill, 1997; D'Alessio & Banerjee, 2016; Heisserer, & Parette, 2002; Museus & Ravello, 2010). More recently, advising has expanded far beyond simple, infrequent visits to an advisor to select and enroll in a specific course load. Modern advising, regardless of specific methodology, often blurs the lines between counseling, mentoring and coaching (McWilliams & Beam, 2013).

There are a number of formally defined methods of advising that have emerged over the years including advising as teaching or developmental advising that offer a holistic approach to the student through the development of the student's social, emotional, vocational, and economical parts among others (Crookston, 2009; Grites, 2013; Winston & Sandor, 1984). Appreciative advising (Bloom, Hutson, & He, 2008) aims to counteract any negatives views of students by highlighting an individual's potential positive contributions and the similar strengths-based advising approach (Schreiner & Anderson, 2005) attempts to transfer deficiencies into strengths. Focusing on increasing a student's feelings of belonging and relatedness is known as need-supportive advising (Leach & Patall, 2016).

The occurrence of a natural disaster may have helped further shape the interaction styles between faculty, staff, advisors and students. In addition, the event added to the overall challenges faced by the nontraditional student population. It has been demonstrated that nontraditional students may benefit most from a more intrusive method of advising because the approach "inherently takes individual needs into consideration and focuses on matching interventions and services to those needs" (Fosnacht, McCormick, Nailos, & Ribera, 2017, p. 816) but in the wake of a natural disaster, the question remains whether the intrusive nature continued and how it transpired.

Statement of the Problem of Practice

The problem of practice is a lack of knowledge surrounding the short- and long-term enrollment and academic trends and patterns of students in the wake of the disaster, how student success interactions (including intrusive advising) played a role in the campus' post-disaster response, and the experiences of student and staff during the disaster. Furthermore, it was unknown how student outcomes may have fluctuated throughout the event. The hurricane presented the faculty and staff of FSUPC with the unfortunate opportunity to advise, mentor, and assist not only their students but the surrounding community as well. The problem of practice is situated in the areas of student success, retention, and environmental shocks as well as intrusive advising. Within these contexts, it was important to evaluate how this occurred and whether student patterns in enrollment, retention, and persistence may have improved or worsened as compared to previous trends.

Purpose of the Study and Research Questions

The purpose of this Dissertation in Practice was to look at the patterns and trends of student enrollment, course hour load, and academic outcomes and explore student success interactions after the environmental shock of a natural disaster. The campus is a regional, commuter campus with a large variety of enrolled students (First Time in College, nontraditional, older, transfer) and therefore, the entire student population was targeted in the study for a period of one year prior to and after the disaster. Essentially, the goal was to not only explore the intrusive advising and student and staff interactions that might have transpired but to also take a closer look at any trend changes in retention, attrition, degree obtainment, withdrawals, and other student outcomes that also occurred for the campus overall. Additionally, examining the demographic data of the enrolled students before and after the disaster helped to inform the topic of how students react to a disaster. It was important to understand the context surrounding the voices that were captured in the interviews and reflected in the analysis. Research questions are presented next with the first portion of the dissertation acting as a canvas upon which the picture (the captured interactions and experiences) painted by the second potion could be illustrated.

Research Questions

In this study, I proposed to answer the following questions:

1. What are the patterns and trends in student enrollment, course hour load, and academic outcomes for the student population across multiple student demographics at a regional university campus pre and post a category five hurricane?
2. What do student success services (including intrusive advising) look like in the immediate aftermath of a major natural disaster?

Definitions

I used the terms *nontraditional student* and *intrusive advising* throughout this study and the following definitions were provided for clarification. *Nontraditional student* has been typically defined by the age of 24 or older but has included students who diverge from typical enrollment patterns (delayed enrollment that occurs much later after high school), having one or more dependents other than a spouse, and whether a high school diploma was received (Horn & Carroll, 1996, p. 3). For the purpose of this paper, the definition also included those students whom work full time.

Intrusive advising has been more recently termed "proactive advising" (Varney, 2012, para.1) but I opted to use the intrusive term. The justification for doing so will be expanded upon in chapter 2 but I provided an overall definition here: initiating contact with students, showing interest, establishing and building a relationship (Varney, 2012) through the discussion of life topics and personal goals, interests, and ambitions (Crookston, 1994), monitoring progress, randomly interacting with student in a variety of locations outside the advising office and deliberately approaching students at the first sign of difficulty before situations develop and before students ask for help (Earl, 1988, Varney, 2012).

Study Design Overview, Feasibility, and Significance

This dissertation in practice was an exploratory study since very little was known about the contextual convergence of a disaster event, higher education setting, the lens of advising, and nontraditional students. The mixed methods design consisted of an analysis of data from pre- and post-natural disaster to explore patterns in variables selected to capture a snapshot of the campus' student population. This analysis allowed for several comparisons across terms and semesters

(i.e., Fall to Spring and Fall to Fall). Additionally, a descriptive case study design was used to more thoroughly examine the disaster response style of the advisors and other student success staff as well as the interactions with and experiences of students who were enrolled during the disaster. The overall goal of this study was to capture what student success practices such as intrusive advising look like post-storm while examining the same population as a whole using student demographics and outcomes over the course of a period across pre- and post-natural disaster. Reviewing long term trends in enrollment, retention, and attrition helped control for other extraneous variables

Study Site Overview

Florida State University Panama City (FSUPC) employed three professional advisors and one first year coordinator who shared responsibility with 48 full-time faculty members, 49 adjunct faculty members, and over 80 staff for a student body that included 976 enrolled students (as of the beginning of the fall 2018 semester; D. Henry, personal communication, February 20, 2019). All commuted daily. FSUPC's campus wide approach to student interactions and success incorporated all faculty, advisors, and staff. This aligned closest with proactive/intrusive advising. There was a diverse student population in that roughly half (n=473) were considered part-time students as of the fall 2017 semester and the age range was significantly large with 31.17% at age 31 and older (FSUPC, 2017). The majority of the student body was considered nontraditional in that many had full time jobs, were responsible for the care of dependent children, and although categorized as "first time in college," were older than students attending FSU Tallahassee (Office of Institutional Research, 2018). Nontraditional student populations often require a greater amount of time and effort due to the greater range and depth of concerns and issues they present to advisors (Peters, Hyun, Taylor, & Varney, 2010).

Table 1 depicts age ranges of students categorized by academic type per Tallahassee or Panama City campus. The academic types displayed include undergraduates (UG), Graduate level (Grad) and non- degree seeking and certificate seeking (Other). Table 1 depicts the age ranges and the varying student body profiles across the two campuses with the first example being the difference in the number of students age 22 and under. While 89% of the enrolled undergraduates on the Tallahassee are age 22 or less, this same age group makes up only 32% of undergraduate population at the Panama City campus. The inverse is true regarding students age

31 and older (Tallahassee includes a little less than 2% while Panama City includes approximately 30%).

Table 1

Comparison of FSU Students

Age Ranges by Academic Category and Campus (Fall 2017)

Age Range	TLH-UG	PC-UG	TLH-Grad	PC-Grad	TLH-Other	PC-Other
22 & Below	89.03%	32.10%	9.00%	7.14%	56.00%	24.14%
23-25	6.82%	18.85%	31.82%	28.57%	12.90%	17.24%
26-30	2.25%	18.98%	30.98%	29.37%	10.45%	13.79%
31-40	1.25%	17.71%	20.03%	30.95%	8.82%	24.14%
41 & above	0.66%	12.36%	8.16%	3.97%	11.84%	20.69%

Note. Academic categories are abbreviated as undergraduate (UG), graduate (Grad), and other (non-degree seeking). Campus locations are abbreviated Tallahassee (TLH.) and Panama City (PC).

With such a diverse student population to serve, FSUPC expanded its student services initiatives, opened the new Academic Advising and Student Success Center, and implemented a more proactive (intrusive) advising methodology in April 2018 (A. Polick, personal communication, February 7, 2019). This was implemented as an improvement for all students but targeted the specific goal of increasing freshman admissions. Previously, in 2012, a four-year academic plan was approved that allowed the campus to admit the first freshman in 2013 (FSUPC, n.d.a) and the largest freshman class in the history of FSUPC (n=70) was admitted in the fall of 2018 (Hanna, 2018). Although the Success Center was a newer addition to the campus, some form of academic advising has always been offered at FSUPC. The campus also features the FSU Panama City Pathways program that allows students—not immediately accepted to FSU Tallahassee—to instead register for classes on the FSUPC campus for the summer C and fall semesters with the option to either continue at FSUPC or transfer to Tallahassee at the conclusion of their first fall term (FSU Panama City, n.d.b). The distinct student population and transfer heavy, regional, commuter campus setting provided a novel combination for the investigation—especially in light of an environmental shock such as a natural disaster.

Feasibility

Available data was stored in the PeopleSoft Data Archive Manager and accessed through a variety of analysis tools: *myFSU* Business Innovations, Campus Connect, and the Slate platform. Data included historical data spanning the last several years on retention, attrition, number of reduced hours, applicant yield, and student demographics. Similarly, information regarding the Pathways students was also stored and could be made available for analysis post Institutional Review Board (IRB) approval. Due to my internal role at FSU Panama City, I was familiar with the manner in which data is collected. Data on student trends, attrition, retention, and performance continued to be collected on a semester basis by the university allowing for pre- and post-storm comparisons. Stakeholders appeared to be invested in this study and assisted in identifying the different student outcome measures available for analysis.

Significance

As "natural disasters are powerful agenda setters," their resulting impact can quickly generate policy change (Birkland, 2016, p. 6). Unless evaluated carefully, a natural disaster can be just as impactful in providing setbacks and barriers via ill-advised policy changes on the federal, state, and university level. In light of potential impacts of a natural disaster, it was important for FSUPC to evaluate the response used after the hurricane. The lessons learned informed the primary stakeholders (the campus Dean, advisors, student success staff, and faculty) about how students perceived their collective actions and facilitated the further development of information to better prepare advisors and other student success staff how to respond to the needs of students. As most everyday students' needs may not be considered as severe as those that stem from a natural disaster, examining and confirming a set of responses after an environmental shock had implications for all types of barriers faced by students and campuses. This could more adequately inform future policies and procedures regarding disaster response in an academic setting or services that are initiated to alleviate the effects on academic staff and students. The study had the potential to investigate a novel implementation of intrusive advising as well as generalized intrusive student interactions (not limited to advising). It could reveal additional methods to increase the overall success rate for students and lead to greater quality of life (with each class that is successfully completed and each new diploma that is awarded).

As the nontraditional students of FSUPC already face many challenges and obstacles, they must also maintain the academic standards of one of the nation's elite research universities. An additional layer of burden came from the occurrence of the hurricane that created unplanned, novel challenges for this type of student population. Environmental shocks of various degrees (school shootings, natural disasters, student deaths) understandably interrupt the educational process. Exploring the interactions of the faculty, staff, and students in the context of a severe environmental shock had the potential to inform a variety of other contexts and less disruptive events. It could also shed light for other institutions of higher education on any relationship between intrusive advising and college students living in the aftermath of a natural disaster. Overall, investigating the post-storm interactions with students and the actions of the campus overall contributed to the research base surrounding resilience, emergency response, intrusive advising, and environmental shocks.

The primary stakeholders were likely affected by the natural disaster in ways that are both obvious and yet to be determined as long-term impacts will need to be studied. One immediate stressor was not knowing how to mitigate the effects of such a severe environmental shock. Stakeholders were tasked with compiling data on the whereabouts of students and the creation of an immediate plan to resume classes in keeping with the accreditation rules set by the Southern Association of Colleges and Schools (SACS). As the area suffered a catastrophic disruption in communication abilities, this hampered the efforts of stakeholders—regardless of whether they evacuated or stayed. A significant amount of resources and a great deal of effort is spent on recruitment, enrollment and advising in order to work toward an institution's goal of increasing student retention and graduation completion. Intrusive student success methods require stakeholders to invest time, department resources, and to build a caring relationship with students. Forty-five days after welcoming the largest freshman class to be admitted in the history of the campus, Hurricane Michael hit the campus and surrounding area and brought to light the real possibility of negating the achievements of the faculty and staff of FSUPC and erasing years of hard work. The largest benefit of this study for involved stakeholders was learning about the interactions with students post-disaster and how the campus' student population overall fluctuated prior to the event, leading up to the storm, and in the aftermath of the disaster.

Conclusion

This Dissertation in Practice captured the stories of nontraditional and transfer students as they faced unknown challenges, aimed to contribute to the literature on natural disasters and higher education institutions, and examined the staffs' efforts to solidify the future of their institution. It sought to explore student success initiatives in the aftermath of a major hurricane and examine the patterns and trends of the student population pre- and post-natural disaster. The goal was to not only look for intrusive advising and interactions that might have occurred but to also take a closer look at any trend changes in retention, attrition, degree obtainment over a three-year period as this sets the stage for how they experienced the event. Chapter 2 will provide an overview of the regional, commuter campus in which the problem resides and the rationale for studying the event. Prior relevant research will be reviewed as well as the novel contributions of this study. Chapter 3 will detail the investigative approach, outline the methodological approach, provide the sources of data and the approach for each research question, and further describe the design and limitations. Finally, chapter 4 will detail the findings that resulted from this study and discuss the implications for future research. Chapter 4 concludes with debriefing plans for stakeholders.

CHAPTER 2

BACKGROUND ANALYSIS

Introduction

The purpose of this exploratory Dissertation in Practice was to look at patterns and trends in enrollment, course hour load, and academic outcomes and explore the student and staff interactions at a regional commuter campus as it responded to a major hurricane. This chapter discusses how the problem of practice is situated in the areas of student success, retention and environmental shocks and explain the connection to advising. Intrusive advising and its benefits will be reviewed. Next, common investigations of student outcomes related to environmental shocks will be covered and, finally, a review of higher education institutions' responses to natural disasters. This will highlight the need for contributing to the literature on natural disasters and university students—specifically, nontraditional and transfer students as well as the further exploration of any actions resembling intrusive advising that may have occurred.

Context of the Problem of Practice

The targeted regional, commuter campus in this study embraced the beneficial method of proactive/intrusive advising. After a major hurricane hit the Florida Panhandle region where the campus is located, the faculty and staff relied on intrusive efforts to interact with students as a catastrophic communication failure prohibited texting, calls, and emails. The terms proactive and intrusive were both used for a type of advising interaction. However, for the purpose of the study, intrusive was used due to the obvious inability to formulate the type of proactive response needed to assist students robbed of every personal item, made homeless, or facing the death of a loved one due to a natural disaster. Given the short time period of less than 24 hours in which Hurricane Michael worsened from a category 2 to a category 5, the campus had very little time to be proactive and therefore, intrusive was the more accurate term. Due to this unexpected disaster, intrusive advising and intrusive interactions were re-defined for the purpose of this study as deliberate, institutional-wide efforts to motivate students to seek out help, using action-oriented strategies to show concern for and involvement with students, working to educate

students on all options, and capitalizing on social integration to increase persistence in students regarding their academic recovery after the disaster (Bernard, 2017; Earl, 1988;Varney, 2012).

Dimensions of the Problem of Practice

Investigations into satisfactory and unsatisfactory advising have demonstrated how advising can impact the overall collegiate experience for students and influence satisfaction indices, concluding that academic advisors—or similar positions—are key for creating meaningful connections to students (Varney, 2012). This follows the view that intentional contact with a student in order to nurture a caring relationship between the student and the university employee will benefit the student though an increased likelihood to persist until the completion of their college degree (Varney, 2007). This potential benefit of increased retention and degree completion was the main reason intrusive advising is used at the regional campus. Furthermore, an intrusive response style continued after the hurricane as faculty and staff were faced with overwhelming damage in the students' community and infrastructure.

Intrusive advising has been shown to be beneficial for students overall but especially for transfer and nontraditional student populations, which are the primary student demographics attending the campus. This approach is likely beneficial for these types of students in particular since it considers the individual's need (Sutton, 2016). Universities are encouraged to look the unique needs of transfer students in order to be more aware of the challenges faced by this at-risk population, learn more about their preferences, and ensure necessary information reaches these students (Lee & Schneider, 2018). Similar to students who find themselves immersed in the immediate instability that follows an environmental shock, nontraditional students may not know the specific information to ask for or where to seek help (Braun & Zolfagharian, 2016). Further, specific types of students may react differently to the more traditional advising techniques versus more intrusive methods. How transfer students participate in advising activities and interact with advisors is one area that lacks substantial investigation and the related factors that contribute to engagement, involvement, and participation should be examined (Braun & Zolfagharian, 2016; Lee and Schneider, 2018).

After the category 5 hurricane devastated the surrounding region and communities, the campus' nontraditional and transfer students' challenges increased significantly. Everyday challenges included financial struggles, the needs of their family or dependents, and what Bowl

(2001) terms as overall "time poverty," meaning they are diverted from academic responsibilities by the sheer number of other imposing items to complete. Challenges of a natural disaster come in the form of its immediate effects, persistent stressors from a lack of resources, and continued losses that may be more severe sources of negative effects that persist for long periods of time (Norris, Perilla, Riad, Kaniasty, & Lavizzo, 1999). Studying a major natural disaster's impact on the students, the additional challenges it brings, and the campus' response contributed to important areas lacking in the literature. Although other variables have been investigated, few studies have looked at the academic performance of colleges students post natural disaster (Pietro, 2018). It was important to further examine what happened as higher education institutions worked to mitigate the effects of unplanned, acute environmental shocks and determine how intrusive student initiatives contributed in any way. This had potential to reveal solutions for helping students succeed when facing fewer extreme obstacles, personal and individual hardships, and reveal ways in which other institutions might begin to mitigate effects of their own environmental shock through the use of intrusive techniques and interactions.

Orientation within the Larger Landscape

The problem of practice surrounded the unknown short-and long-term patterns and trends surrounding student enrollment status and retention as a major hurricane occurs. Additionally, it was important to understand how intrusive student success interactions—as part of the campus' post-disaster response—occurred during this challenging situation and how students' experiences and interactions with staff varied. To expand upon the dimensions informing the problem of practice, the rationale for increasing student retention and the number of students completing their college degree will be discussed in this chapter as well as the focus on advising as a tool to achieve that goal. Finally, the different types of environmental shocks are covered in addition to how natural disasters have been studied.

Student Retention and Persistence

The push for universities to increase retention and persistence to degree obtainment has received national attention due to performance-based funding as well as the national shortage of degree bearing individuals. The number of people in the United States with a high-quality college degree must increase for the stability of the nation's economic and democratic future as

only 40% of the workforce in the US holds a college degree (Applegate, 2012). In comparison, South Korea ranked as the most educated nation in the world with 63% of workers holding a college degree and Canada has also implemented plans to dramatically increase their numbers from 60% to 70%. Because 50% of college students do not complete their degrees, our nation faces a critical skills deficit (Jones, 2015). The issue of the critical degree deficit may be alleviated through the use of advising. The justification for advising as a potential solution will be discussed next.

Advising

Advising has been deemed a solution for increasing both student retention and persistence (Smith & Allen, 2014). It is a significant indicator of transfer students' success as students who more frequently visited their academic advisors were 2.14 times more likely to complete a four-year degree over students who did not meet with advisors as frequently (Lee and Schneider, 2018). In order to provide a successful and relevant advising system, many institutions have considered how to effectively and purposefully develop meaningful relationships with individual students by understanding their needs in addition to the overall needs of their institution (Young-Jones, Dixon, & Hawthorne, 2013). Intrusive advising may hold the key to developing a quality understanding of each student's potential barriers to success and this could generalize to the additional barriers presented by an environmental shock.

Environmental Shocks

Environmental shocks are "major, unanticipated disruptions" (Meier, O'Toole Jr, & Hicklin, 2010, p. 981) that "derail socioeconomic progress, strain social safety nets, and require complex assistance and recovery interventions" (Frankenberg, Sikoki, Sumantri, Suriastini, & Thomas, 2013, p. 1). The term is rooted in economics and comes from one of two general types of shocks: idiosyncratic and covariate. Simply put, an idiosyncratic shock may only affect a single individual or family (such as the death of a loved one). In contrast, a covariate shock impacts multiple households (commonly in close proximity) and includes the category of environmental shocks (Bennett, 2015). Examples of environmental shocks include school shootings, terrorist attacks, droughts, earthquakes and other natural disasters—but one commonality is the long-term negative effects that result.

One example of an environmental shock's impact on academia is California State University, Northridge (CSUN)—which was located one mile from the epicenter of the Northridge Earthquake of January 17, 1994. CSUN served over 25,000 students prior to accruing over 400 billion dollars in damage—resulting in no useable buildings. The devastation was significant: the library alone was closed for eight months (Finley, 1999). In addition to the drastic physical facility damages and necessary repairs, losing students to other institutions, changes to degree offerings, lost tuition revenue, and replacement of technology systems and information databases are some of the impacts that disaster-effected higher education institutions experience (Doyle, Lockwood, & Comiskey, 2017; Parker, Jaeger, & Kern, 2003; Shaw, 2016).

It is important to note that the individuals often responsible for the stabilizing students' post-disaster environment may need additional support or face their own personal challenges. Institutions may need to provide increased support for both faculty and staff. In addition to the long-term attention and emotional concerns following an environmental shock (Grattan, Roberts, Mahan, Jr, 2011; Herman, Felton, & Susser, 2002), symptoms of psychological distress may occur well after the initial event (Bland, O'Leary, Farinaro, Jossa, and Trevisan, 1996). General anxiety (Trip, Tabakakis, Maskill, Richardson, Dolan, Josland, McKay, Richardson, Cowan, Hickmott, & Houston, 2018), depression and fear (Ingram, Tinago, Cai, Sanders, Bevington, Wilson, Magruder, & Svendsen, 2018), and post-traumatic stress disorder (Kennedy, Petley, Williams, & Murray, 2015; Kousky, 2016) have been found to be some of the long-term effects of a variety of environmental shocks. Unfortunately, suicidal ideation has also been found to increase after experiencing a disaster (Brown, Fernandez, Kohn, Saldivia, & Vicente, 2018; Tang, Xu, Li, Lu, & Xu, 2018) as well as other long-standing adverse effects—even up to ten years post-event (Mushtaq, Rehman, & Margoob, (2017).

Two other factors surrounding environmental shocks include how both educational institutions and students respond to these events. Although an administrator's intense response in a stable, every-day setting does not produce advantageous results, the same intensive response style in the wake of disaster related events has been found to be beneficial (Ryu and Christensen, 2018). One could argue that such intense responses from administrators may share the same defining features of intrusiveness but again, this context is so rare that it is unknown if this has any impact on the academic recovery of students exposed to natural disasters.

In addition to the challenges that students face in the wake of an environmental shock, as mentioned above, another challenge of theirs may be a poor repertoire of how to secure resources and navigate hurdles to stabilize their academic progression. In an everyday (non-disaster) setting of a university, studies have noted students may not know the correct questions to pose during one-on-one sessions with advisors (Braun & Zolfagharian, 2016). This may be true for students who find themselves living in the aftermath of a natural disaster. However, one noted exception may be students who have previously encountered a disaster (Tkachuck, Schulenberg & Lair, 2018). The same can be said for university employees with prior exposure to a disaster. Without being heavily impacted, an impending event may only serve as a threat message and staff may underestimate the risks (Weber, Schulenberg, & Lair 2018). A closer look at post-Hurricane Michael circumstances may capture additional details regarding institutional responses. It is important to first review how natural disasters have been studied in relation to their frequency and bearing on academic institutions.

The Study of Natural Disasters

Natural Disasters and other types of environmental shocks have been gradually increasing (FEMA, 2019) and therefore, any potentially affected organizations, businesses, and educational institutions can benefit from well investigated responses for the sake of their own accelerated recovery. At minimum, disasters are an increasing area of study in order to assist these entities in the formation of a planned response to mitigate negative impact. In the past century, the United States has experienced over 10,000 natural disasters spanning from mild to severe (Boustan, Kahn, Rhode, & Yanguas, 2018). This included 59 major disasters—excluding emergency declarations and fire management assistance or suppression declarations—that were declared in 2018 and in 2017 each in comparison to fewer each year spanning the last 40 years (FEMA, 2017; FEMA 2019). With the increase in disasters comes the increased possibility that more and more academic institutions will face an environmental shock of some sort.

Some institutions and organizations are able to effectively respond to disasters, mitigate their effects, and even outperform in comparison to their previous data (Meier, O'Toole Jr, & Hicklin, 2010) while others are unable to prevent the shock from leaving long term, entrenched outcomes—such as increasing the probability that a student will not finish their degree (Pietro, 2018). On the contrary, the effects of a disaster can lead to the development of a variety of

positive responses including increased social trust (Toya & Skidmore, 2014), innovative ideas, different perspectives, and the restructuring of curricula to even include the incorporation of the surrounding disaster into that of the remaining academic atmosphere through service projects and other actions to help address immediate concerns (O'Steen & Perry, 2012). Although high educational levels are associated with increased resilience after a disaster (Frankenberg, Sikoki, Sumantri, Suriastini, & Thomas, 2013; Toya & Skidmore, 2006), universities must find a way to prepare their students and devise effective response plans because students are not always prepared as individuals to meet the challenges a natural disaster will bring.

Previous Studies

Next, I will review the bodies of literature surrounding intrusive advising, followed by environmental shocks as both topics make up the context of the Problem of Practice. Additionally, informing this dissertation in practice are the specific outcomes of students enrolled at FSUPC and therefore, previous studies on environmental shocks will include the variables that have been used to measure student outcomes. Finally, higher education responses to disasters will also be covered.

Intrusive Advising

Intrusive advising has long been a solution for increasing student retention and persistence (Abelman & Molina, 2001; Backhus, 1989; McGrath & Burd, 2012). It has also been found to be beneficial for those students considered to be non-traditional or at-risk. This includes students facing dismissal from their institution, possessing a diagnosis such as ADHD, as well as students of racial and ethnic minority (D'Alessio & Banerjee, 2016; Molina & Abelman, 2000; Museus & Ravello, 2010). Investigations around the three types of at-risk students who make up a large portion of the FSUPC student population (older, commuter, and part-time), have found these student demographics are more likely to never interact with an advisor or only meet once (Fosnacht, McCormick, Nailos, & Ribera, 2017; Donaldson, McKinney, Lee, & Pino, 2016). Specifically, the "tendency of older and commuter students to meet less often with advisors suggests the need to examine the extent that advising arrangements meet the needs of these populations" (NSSE, 2014 as cited in Fosnacht et al., 2017, p.83). Not surprisingly, student who reside on campus, contact at least a minimal amount of intrusive

techniques and those enrolled in a university sport or otherwise involved in on-campus activities, have all been found to meet more frequently with advisors (Fosnacht et al., 2017; Lee & Schneider, 2018; Poole, 2015; Schwebel, Walburn, Klyce, & Jerrolds, 2012; Varney, 2012) and likely come into contact with interactions that prove to be beneficial for their academic career.

The appeal of intrusive advising may be that it simply mimics the roles of life coaches, counselors, or mentors. In fact, some institutions have moved toward a blended response by having academic advisors trained as life coaches, paired advisors and mentors together on teams, or evolve the two into a single function (Anft, 2018; McWilliams & Beam, 2013). Further still, it has been suggested that some students may embrace the use of advisors more readily over seeing a mentor, counselor, or therapist as these former roles' purposes are perceived to address only deficiencies (D'Alessio & Banerjee, 2016). Although there is a lack of studies that document intrusive advising practices as an interaction style post-disaster, the field of counseling has already been noted as a crucial part of disaster recovery (Uhernik, 1998; Shepard, Kulig, & Botey, 2017). Additionally, academic advisors may be on the front line of critical issues for students and may benefit from training that more closely resembles that found in psychological care professions (Firestein, 2019). Regardless of the terminology, interacting on a personal level more than one time may be the same basic formula used by both counseling and advising. As noted above, the more intrusive interventions appear to be the most successful and this supports an investigation of intrusive actions as part of a university's post disaster response.

Environmental Shocks and Student Responses

Studies on post-disaster student outcomes have examined the psychological and emotional stress experienced, vulnerability of the educational institution, displacement, or school closures as correlated with some other variable like wind speed (Davis, Grills-Taquechel, & Ollendick, 2010; Esnard, Lai, Wyczalkowski, Malmin, & Shah, 2018; Gray, Frankenberg, Gillespie, Sumantri, & Thomas, 2014; Khadaroo, 2017; Leiva-Bianchi, Ahumada, Araneda & Botella, 2018; Overstreet, Salloum, & Badour, 2010). For example, studies focused on student or citizen displacement found displaced individuals are more likely to develop symptoms of depression and PTSD, more likely to perform poorly if relocated to a higher performing school, and more likely to express greater levels of stress if also experiencing unstable housing (Davis, Grills-Taquechel, & Ollendick, 2010; Fussell & Lowe, 2014; Pane, McCaffrey, Kalra, & Zhou,

2008). However, none of these studies focus on measures of academic achievement of college students in connection to advising practices as a post-disaster intervention.

Some studies about natural disasters have specifically investigated student motivation levels and academic achievement, perceived social support, and substance abuse as a coping mechanism. The results of such inquiries have not provided clear conclusions with one study finding only a weak link between the occurrence of a headaches after an environmental shock and decreased GPA and no connection between the number of days without power or days absent from school and decreased GPA (Doyle, Lockwood, & Comiskey, 2017). There was a finding of an increased risk for drug and alcohol use but there was no correlation with the specific disaster studied and the negative academic impact was studied using a qualitative interview methodology only (Prost, Lemieux, & Ai, 2016; Sacerdote, 2008). Dissimilarly, one study in a university investigating the impact of a hurricane found that although almost half of the respondents reported a negative effect on their academic performance, there was no significant decrease in the number of students participating in commencement and most "finished course work on time, and moved forward with their life plans" (Watson, Loffredo, & Mckee, 2011, p. 368). A mixed methods design was used but a poor response rate may limit the generalization of the study.

In secondary education contexts, the occurrence of a disaster has been associated with academic decline and a decrease in graduation rates (Strauss, 2017), but the academic impacts for college students after an environmental shock are less clear. Possibly obscuring this context is the addition of secondary stressors to the lives of college students as they amass over time while primary stressors are targeted. Such variables are difficult to define and come in the form of economic hardships, rebuilding complications, health problems, social pressures, and an overall "reverberating network of stress" (Lock, Rubin, Murray, Rogers, Amlôt, & Williams, 2012, p. 11) due to the event's potential for on-going, long-term effects. Nevertheless, it is often the responsibility of higher education institutions to provide the answer for their faculty, staff, surrounding community, and most importantly, their students.

Higher Education Responses to Disasters

The focus on how institutions respond after experiencing an environmental shock has been scrutinized in order to reveal any potential insights for formulating proactive measures or,

at the very least, the most effective response. Such investigations have looked at the various ways in which a school attempted to prepare, how the school or department coped, how day-today operations were resumed, and the effects on displaced students when sent or received from other campuses (Mutch, 2015; Parker, Jaeger, & Kern, 2003; Schuh & Laanan, 2006; Sinclair, 2007). The importance of the educational institution is not limited to the re-establishment of routine and has been found to be a key player in a community's recovery, the emotional stability of students, and the setting where school leaders become crisis managers (Mutch, 2015). Studies detailing recovery barriers and how to better prepare for disasters highlight the need for thorough planning (Parker, Jaeger, & Kern, 2003) but this is limited to educational institutions who reasonably expect a natural disaster. Not all institutions are prepared to mitigate the negative effects of such events as was the case of the disruptions that were experienced in New York City when Hurricane Sandy hit the area as a Tropical Cyclone (Daly, 2012; Schuh & Laanan, 2006; Strauss, 2017). Unfortunately, advanced preparation may be the only option when unsuspecting disruptions occur making mitigation unfeasible. Institutions have shown great creativity when faced with devastation from a disaster, but these solutions may be faulty at best.

Universities go to great lengths to alleviate the impacts of natural disasters and have successfully employed recorded lectures, online seminars, and other forms of eLearning to reach students, if the physical capabilities allow for such to occur (Ayebi-Arthur, 2017a; Ayebi-Arther, 2017b). Technology, particularly cellular phones, have been studied and identified as a means of saving lives prior to a disaster, but studies have not clearly evaluated their role after the occurrence of the disaster (Toya & Skidmore, 2018). If students are unable to access technology or the technology structure fails due to extensive damage, a more intrusive, personal method may be necessary. This became the case for FSUPC after the occurrence of a natural disaster and underlines the need to study this method of responding in order to understand its outcomes.

Description of the Local Context

Florida State University Panama City, a regional campus, included roughly 1000 enrolled students (who commute daily) compared to approximate fifty thousand the home university enrolls (Office of Institutional Research, 2018). There were roughly 50 faculty, half of whom were adjunct, bringing the faculty to student ratio to 20:1. This section discusses the campus'

student-focused initiatives that were in effect prior to and after the occurrence of Hurricane Michael. Additionally, the hurricane event itself and the changes it brought will be discussed.

Pre-Disaster Advising and the Student Body

Overall, the campus uses a de-centralized but intrusive, advising model. In addition to the three professional advisors and other individuals from the Enrollment, Admissions, and Recruitment office, faculty and staff also heavily interact with students through several campus events and functions. This may include different types of problems and challenges that are traditionally covered by advising staff. At any given time, a student has multiple opportunities to ask questions, seek advice, or develop rapport with individuals in various positions: advisors, faculty members, administrative staff, and even support staff. A central email address for submitting student information to the advising department is used by staff should a student discuss any topic of concern that could require a follow-up contact. Examples of interactions may be random, routine, or purposeful such as a faculty member following up after repeated absences. The majority of the Panama City students are nontraditional and enrolled part-time, and although some are categorized as "first time in college," they fall in older age ranges in comparison to students attending FSU Tallahassee (Office of Institutional Research, 2018).

Pre-Disaster Services

The new Student Success Center was opened in April 2018 (FSU Panama City, n.d.c). and provided advising, tutoring, policy explanation, and course registration assistance. The Undergraduate Success Committee acted as an early response system to discuss students requiring more intrusive prompts and ensuring all students have the level of support needed in order to be successful. Additionally, the Student Response Team was for the acute needs of students in crisis and it includes a smaller, core group of individuals that can provide a faster response while communicating directly with the staff assigned to the Student Success Center (T. Towne personal communication, February 6, 2019). Additionally, the FSUPC Pathways program is another service for students not immediately admitted to the home university. After successfully completing three terms at FSUPC, the student has the choice to transfer on to the Tallahassee campus or continue their education in one of the programs offered in Panama City until graduation (FSU Panama City, n.d.b).

Hurricane Michael

As is routine for an approaching hurricane and resulting campus closure, department heads met early on October 8, 2018 to discuss the information and projections from the National Weather Service in collaboration with Tallahassee leadership (D. Nix, personal communication, January 8, 2019). The FSUPC campus closed on October 8, 2018 in anticipation of the storm with the hurricane strength projected to reach a strong category 2 or possible 3 (Martinez, 2018). Michael hit on Wednesday, October 10, 2018 as a category 5 storm with the eye wall passing only 30 miles east of FSUPC's location. Every building on campus suffered some form of water invasion, primarily from damaged roofing due to wind speeds. As a result, carpeting and drywall was compromised. The resulting 8 million in damage to university buildings (D. Nix, personal communication, January 8, 2019) and surrounding devastation closed the campus until October 29, 2018, or 19 days post-storm.

In comparison to the campus, the surrounding community received significantly more damage (Skerritt, 2018; CBS/AP, 2018). Although Michael was initially thought to be a strong category 4 hurricane, it was later determined to be a category 5. The storm resulted in 16 deaths immediately and 25 million dollars in damage to the northern gulf coast area (National Oceanic and Atmospheric Administration, 2019). The most detrimental was the critical breakdown in communication capabilities due to destroyed cable internet lines as well as demolished cellular hub stations, toppled radio towers, and fiberoptic lines ripped from the ground (Hurricane Michael network updates, 2018; Sullivan, 2018). This impacted not only FSUPC employees and the community at large but the entire Bay County government's recovery efforts (Fung, 2018).

Community infrastructure suffered as both hospitals in the Panama City area were heavily damaged and over 800 individuals were laid off when one hospital was unable to recover due to structural devastation (AP News, 2018). The local military base was completely destroyed making 3,600 airmen and their families homeless (Maucione, 2018). A catastrophic loss of timber revenue exceeding 1.2 billion was estimated to result in job reductions and loss due to the loss of forestry products for 15 to 25 years after the event (Florida Forest Service, 2018). The local school district experienced a 14%reduction in student enrollment after the storm, closed several school, and faced the possibility of laying off close to 600 employees without federal or state financial intervention (Bay District School Board, 2019).

Initial Campus Recovery Efforts

Although spread throughout multiple states, campus leadership was able to arrange for around the clock restoration services to commence only days after the storm. At the same time, others worked to contact key personnel and then devise a way to communicate updates. Facebook group were set up for both students and staff to check in but due to the aforementioned destruction of the communication grids, some faculty and staff made physical contact with students to ensure their safety. Others reviewed classes that would be easiest to transition to online formats and worked to modify the semester facility use schedules to allow for make- up time. As a result, online classes resumed October 22, 2018 with many face-to-face classes transitioning to an either full or partial online format. The campus officially welcomed students back just one week later on October 29 for the continuation of face-to-face classes.

Simultaneously, the campus advertised counseling services and reminded students about the option to complete an Incomplete Grade Agreements prior to withdrawing completely. The most significant support was likely the establishment of the Seminole Emergency Fund for both students and staff to apply for a grant to off-set stress and the cost of storm recovery (FSU now accepting applications, 2018). Although the Seminole Grant provided individual relief, access to the Internet was also an objective that was fulfilled quickly. Internet access was provided by a gas-powered, satellite communications trailer that was parked at FSUPC and used to give the campus basic needs such as email and internet.

Summary and Contributions of this DiP

This Dissertation is Practice sought to document how FSUPC responded to a category 5 hurricane and whether the "intrusive" initiatives that were deployed had any impacts on student outcomes (in comparison to the campus' historical performance). Forming the setting for this study is a regional university campus and its students that faced the challenge of stabilizing their academic journey after the occurrence of a major natural disaster. Investigating the student outcomes and how the event was experienced by students along with the responses of the campus was a primary objective of this study.

A natural disaster can increase the number of challenges that students face and as a result, advising practices and student success initiatives take on a new level of importance. As there are different advising techniques, some methods may be more effective than others, but none have

been evaluated in a post-disaster environment. As "natural disasters are powerful agenda setters," their resulting impact can quickly generate policy change (Birkland, 2016, p. 6). Unless evaluated carefully, a natural disaster can be just as impactful in providing setbacks and barriers via ill-advised policy changes. The response of the FSUPC employees in regard to their students may have resemble intrusive advising practices—this DiP sought to investigate the nature of the campus-wide response and whether other institutions and organizations might benefit from a similar level of intrusiveness if faced with an environmental shock. This study aimed to fill the gap in the literature that covers how to advise in the wake of a natural disaster and examined more closely, the intrusive nature of a campus' response. Kem (2009) offers advice to advisors whose students have suffered a disaster but recommendations are generic and void of explicit actions. This article was the sole result of a search for advising recommendations or initiatives after an environmental shock—a justification for additional investigations in this area. There is a lack of detailed information for how to advise and there is a lack of needed guidance about students requiring a highly intrusive response (i.e., follow-up home visits) after the occurrence of a natural disaster. This study's goal would help provide structure for those two missing components.

Finally, this DiP documented the real-life actions of a small regional campus subjected to a major natural disaster since the occurrence of natural disasters provided the most extreme challenges for students, faculty, staff and administrators. Any phenomena such as increased performance or decreased attrition in the wake of the hurricane could also be investigated for potential generalized benefits in order to benefit future educational institutions if faced with the environmental shock of a natural disaster, terrorist event, or other significant interruption. Finally, this study's finding aimed to benefit all universities in their ongoing mission to increase student persistence and retention.

CHAPTER 3

INVESTIGATIVE APPROACH

Introduction

This exploratory study used a sequential, mixed methods design to answer the two research questions since little was known about the patterns and trends of student enrollment, course hour load, and academic outcomes or student success interactions that occurred in the post-disaster landscape. The study is primarily qualitative as greater emphasis was placed on capturing interactions and how the event was experienced by the students and staff through their own words. The initial quantitative piece served as a framework for the completion of the more in-depth, qualitative component and overall, served as the backdrop for the interactions that are explored in the qualitative section. This chapter will highlight how each portion complements each other and review the specific designs to be used to answer each of the research questions. This section is organized by research question and the respective sampling method, data sources, data collection procedures, and analysis plan will be discussed as well as specific delimitations for the population of study. Finally, limitations to the study are considered.

Research Question 1

The first research question asked, "What are the patterns and trends in student enrollment, student credit hours, and academic outcomes for the nontraditional student population across multiple characteristics at a regional university campus pre- and post-category five hurricane?" In order to answer the first question, a rich descriptive analysis of pre- and post-hurricane campus demographic and performance data was conducted. Data was analyzed from a period of three academic years which included a time period of at least one year pre- and one year post-natural disaster. Several variables were measured to evaluate the patterns and trends of the campus by combining student indicators and outcomes for each semester. These are discussed below.

Sample. The sample for this for the quantitative portion of this descriptive case study was the campus of FSUPC in that information for all enrolled students (referred to as "Panama

City campus head count") was included in the data set used in the analysis. Students enrolled at any time from the beginning of the fall 2017 semester through the conclusion of fall of the spring 2020 semester were included. This population consisted of a mix of traditional, nontraditional, and first time in college (FTIC) students. Including each student in the data set allowed for a snapshot of the campus in order to compare outcome patterns pre- and post- hurricane. This informed the research questions and aided in answering how the student body—including nontraditional students—reacted to a natural disaster. The sample was the student body of a regional commuter campus and data were used that represent both face-to-face and distance learning (DL) students. Regardless of course delivery format (online or traditional), all students were counted for the Panama City campus head count even if residing in Tallahassee but admitted to FSU Panama City. Being "enrolled" included being registered for at least one credit hour assigned to FSU Panama City. This was important for two reasons: first, as students change majors, they may transition from a primary traditional course delivery (attending classes on campus) to an online only format—or a mix of the two. Second, some classes transitioned to online formats in the wake of the hurricane, and excluding online students would have omitted portions of the data intended for the descriptive analysis.

Including all enrolled students allowed for a more robust sample when evaluating any shifts in patterns or trends across student indicators and academic outcomes. This allowed for an analysis of specific demographic characteristics or sub areas such as race, age, major, those students specifically coded as non-returning due to a disaster, and online students across the identified semesters of measurement. This resulted in a dataset that represents data for approximately 1000 to 1500 students between the 2017-2018 and 2019-2020 academic years.

Sample Selection Procedure. All FSUPC students (included in the campus' official head count) were included in the sample. This sampling method allowed for the use of the data from each student enrolled during the comparison period. This population also included nontraditional students.

Data Sources. A number of data sets were used for analysis for this study. A data storage and management framework stored all existing data and allowed multiple tools to retrieve the data. Such tools included *myFSU* Business Intelligence (BI), a transactional data base and analysis tool that essentially used the data from the framework to create specific reports

as requested by the approved proxy. The Student Information System (SIS) is a separate data base that was used to track enrollment and worked alongside BI. Both SIS and BI databases were used to retrieve, aggregate, and export the data to spreadsheet format. Examples of existing data variables included student retention from semester to semester, total enrolled students, percent of the student body that is deemed first time in college (FTIC) students, degree completion rate, non-returning students from the previous semester, withdrawal codes (including those specifically coded as withdrawing due to the disaster), students earning grades of D of F in courses or those that withdraw from courses (these students are termed "DFW students"), and various demographic information such as age, gender, major, and GPA that were used to further examine trends and patterns.

Analytic Approach. To determine patterns and trends in student enrollment, student course hours, and academic outcomes pre- and post- hurricane, the variables listed in Table 2 were evaluated using univariate analysis. Once an analysis of these variables was conducted, trends and patterns were analyzed across semesters and academic years. Descriptive statistics was used to assess those trends. In addition, graphical analysis was also conducted to evaluate trends and patterns over time.

The hurricane was indicated on the line graphs with a vertical line between the Fall 2018 and Spring 2019 data points from each fall and spring semester (beginning Fall 2016 through the completion of the data set collected at the conclusion of Fall 2020/Spring 2021). Finally, withdrawal codes including the specific code indicative of when a student left due to disaster-related causes were exclusively coded as such in the same data system as well as the corresponding, specific dates in which each course drop, add, and withdrawal action took place. These data were used to evaluate the trends in withdrawals and reasons for doing so. This illustrated additional information about how the student population experienced the disaster.

Further, student characteristics such as age, sex, gender, major, and GPA were examined for the variables listed above. For example, the total number of enrolled students was further classified by age in order to analyze how the composition of the student population may have changed following the hurricane. These categories were examined to determine if certain characteristics such as gender resiliency, sequenced majors impacting student withdrawal, and to explore how more vulnerable individuals such as older, nontraditional students are more or less

likely to return after a disaster. Using these categories further illuminated any hidden patterns and trends in the variables listed above and assigned a voice to the students these data represent.

Table 2

List of Exploratory Variables

Variable Name	Description	Variable Type
Head Count	Total number of students enrolled as FSU Panama City students for each semester between Fall 2017 and Spring 2020 excluding summer semesters. This will include Pathways students and other transfer students.	Continuous
Degree Obtainment	Number of FSU Panama City students who complete their degree in a given semester at FSUPC. Measure will be collected for each Fall, Spring, and Summer between Fall 2017 and Spring 2020. Summer semester obtainment will be included.	Continuous
Number of FTIC students	Total number of First Time in College (FTIC) students enrolled at FSU Panama City beginning their initial semester and measured for each Fall and Spring between Fall 2017 and Spring 2020 – excludes summer semesters. This may include Pathways students.	Continuous
Percentage of Non-Returning Students	Percentage of students at FSU Panama City that do not return from one semester of measurement to the next due to withdrawal (number of students divided by the total number of enrolled students at FSU Panama City and multiplied by 100) for each semester between Fall 2017 and Spring 2020 excluding summer semesters and transfers to other institutions.	Continuous
Percentage of Returning Students	Percentage of students at FSU Panama City that continue from one semester of measurement to the next (number of students previously enrolled at FSU PC divided by the total head count and multiplied by 100) for each semester between Fall 2016 and Spring 2021.	Continuous
DFW Rate	Percentage of D, F, and W grades for FSU Panama City students per semester between Fall 2017 and Spring 2020 excluding summer semesters.	Continuous
Disaster Withdrawals	Number of FSU Panama City students who withdraw and are coded as leaving due to the disaster for each semester between Fall 2017 and Spring 2020, excluding summer semesters.	Continuous
Student Credit Hours (SCH)	Total number of student credit hours enrolled by FSU Panama City students for each semester between Fall 2017 and Spring 2020 excluding summer semesters.	Continuous

Research Question 2

The second research question asked, "What do student success services (including intrusive advising) look like in the immediate aftermath of a major natural disaster?" A qualitative approach was taken by deploying a descriptive case study design in which in-depth interviews were used to more thoroughly examine the interactions that occurred between the faculty, staff, and students. The overall goal of this phase of the study was to capture the rich information regarding interactions surrounding student success practices (including any intrusive advising practices) between the student success staff, faculty and students who experienced the ramifications of a major category 5 hurricane.

Sample. The sample of individuals was students enrolled in the semester in which the hurricane occurred (fall 2018). Advising staff and all other student success department employees who were employed during the hurricane (or hired the immediate Spring thereafter) were also included in the sample. This sample also included staff who transitioned to other departments.

Sampling Procedure. For the second research question, the database in phase 1 served as the sampling frame from which a sample of students were identified through purposive sampling. Regarding the sample of employees, there were only four to six student success employees and therefore, the entire census of student success staff/advisors was targeted. Some left their position or left the university after the hurricane, but they were be targeted as well. Using snowball sampling, any former advisor or student success employee was contacted to offer the option to participate in an interview. Similarly, former students who were no longer enrolled at FSUPC were identified through the information also stored in the same database. A purposive sampling included purposefully selecting students who would provide the most information to best capture the post-hurricane interactions with the goal of interviewing a minimum of two students from the following five general categories: returning and obtaining degree, returning then attrition, non-returning/disaster coded, non-returning/non-disaster coded, and delayed re-admission post disaster. The total number of interviews intended was calculated by taking the five categories and using the desired number of interviews per category (two) for a total goal of ten interviews (Baker & Edwards, 2012; Mason, 2010).

In order to study the experiences of the student success staff, a full census was targeted for the interviews due to the low number of staff employed in the departments (approximately

four to six). Delimitations for the qualitative in-depth interviews surrounding the hurricane included students enrolled in at least one credit hour at FSUPC during the fall 2018 semester as well as staff employed during the 2018-2019 academic year.

Data Sources. The data used to answer the second research question came from the interviews I conducted. Additionally, any referenced information by an interviewee was also stored in Slate, a client relationship management tool used by admissions officers and student success staff. This information includes logged notes and conversations between students and staff. This information, if referenced by the interviewee and available for review was also included as it was deidentified by an appropriate university employee prior to review.

Date Collection. Identified students were placed in one or more of the aforementioned categories: returning and obtaining degree, returning then attrition, non-returning/disaster coded, non-returning/non-disaster coded, and delayed re-admission post disaster. If two students from each category did not respond to the recruitment initiative, additional emails were sent. After each individual indicated their interest in participating, they were contacted about participating in one-on-one, in-depth interviews. Snowball sampling was used in order to identify two individuals from each category. Attempts to reach a minimum of two participants per category were unsuccessful.

To begin, an interview style that fell between "guided" and "standardized open-ended" (Rossman & Rallis, 2016, p. 155) was used to collect the interactions, experiences, and post-disaster stories of the identified students and staff. Student interview questions surrounded their post-hurricane experiences including any interactions with the campus' faculty and staff. The first questions were intended to establish rapport with the participant while latter questions served the purpose of evoking information that will contribute to the meaning of the event. A list of initial questions was generated after reviewing Foss and Waters (2007) suggestions for robust questions and beginnings and adapted by adding questions to assist in yielding the richest information. These are outlined in Appendix A along with probes that were adapted from Johnson & Christensen (2017) as well as additional probes of various typographies. These were used for note taking purposes for clarifications and elaborations on interviewees' responses. Any non-returning students were interviewed using the protocol found in Appendix B in order to further discuss the experience of the disaster and the individual challenges that may have played a factor in leaving FSUPC. As interviews progressed, additional questions were added to clarify

or discuss content further. All additional interview content was added to the protocol for subsequent interviews. Follow-up interviews were to be structured in a manner to meet the standard of an iterative interview: to elicit the "details of experience" and add to the "reflection of the meaning," respectively (Seidman, 2013 as cited in Rossman, & Rallis, 2016, p. 163).

Next, interviews were conducted with advisors and student success staff (approximately four to six individuals total). Staff participants were contacted and any employee agreeing to participate was interviewed (due to the small size of the department). A similar but more relevant list of interview questions was used for the advisors and student success staff with the same protocol followed for each set of interviews. The staff interview protocol can be found in Appendix C with an additional sub-section for former employees who left the university. Additional questions that evolved during the process were added to the protocol for any subsequent interviewee but ultimately, the goal of the interviews was to resemble a conversation. All interviews were recorded via Zoom and handwritten notes were also be taken throughout the interviews as well as any corresponding logs or documents that were identified by interviewees.

Analytic Approach. Interviews were recorded using Zoom, a cross-platform application. NVivo was used as the primary platform for analyzing and coding interview content as it offered the option to upload recordings and store the Zoom generated transcriptions. A list of a priori codes were developed after reviewing the initial interview protocols and after the completion of each participants' interview, additional follow-up questions and content were also reviewed in order to refine the codes during second cycle coding. The a priori codes are included in Table 3 below. Using this list of initial codes, the content of the participants' responses was reviewed in order to complete a content analysis and in vivo coding helped to enrich this list.

A content analysis was conducted to identify "core consistencies and meanings" (Patton, 2015, p. 790) to produce patterns and themes. A variation of "lean coding" was utilized in which the initial list of codes was revised and expanded as additional reviews of information was completed (Creswell, 2012, p. 184). Furthermore, these codes were shaped by my knowledge of the event since I also experienced the natural disaster. Although initially inductive, this established framework of codes was used in a deductive manner during the review all interview content.

Table 3

A Priori Coding List: Parent (PC) and Child Code (CC) Labels and Numbering

Parent Code 1: Immediate Storm Experiences	
Child Code	Child Code Label
1A	Campus activity
1B	Preparation
1C	Location
Parent Code 2: Interactions	
Child Code	Child Code Label
2A	Advisors
2B	Faculty
2C	Students
2D	Others
2E	Lacking
2F	Excessive
Parent Code 3: Post-Disaster Challenges	
Child Code	Child Code Label
3A	Communication
3B	Immediate
3C	Delay
3D	Incorrect /Inaccurate
3E	Recovery
Parent Code 4: Future Disasters	
Child Code	Child Code Label
4A	Needed changes
4B	Actions to repeat
4C	University responsibilities
4D	Student responsibilities
4E	Safety
Parent Code 5. Education Specific Issues	
Child Code	Child Code Label
5A	Persistence
5B	Withdrawal
5C	Time
5D	Grades
5E	Degree completion

The first parent code, *Immediate Storm Experiences*, detailed the student's involvement with campus during the storm, storm preparation, immediate exposure to emergency protocols, and where the student was located (in order to inform any themes related to displacement as well as proximity to the eye of the storm). The *Interactions* code (parent code #2) involved interactions between the student and advisors, faculty, staff members, other students, or other

unclassified individuals that were listed as interviews are reviewed (spouses, dependents, pets). It also included a sub-topic category to classify any mentioned interactions as lacking or excessive. Parent Code #3 categorized any *Post-Disaster Challenges* the participant identified as this was a central part of disaster recovery and it was important to understand how a nontraditional student labeled and perceived challenges. Child codes to classify identified challenges included those surrounding communication (immediacy, delays, and accuracy).

Parent and child codes in the fourth subheading related to *Future Disasters* and identified changes, actions that should be repeated, actions identified as either a responsibility of the university or the student, and topics related to safety. Finally, Parent Code #5, *Education Specific Issues*, was used to code responses relating to persistence, withdrawals, discussions about time (limits or excess), concerns or mentions of grades, grading, or assignments, and degree completion.

Rich cases such as those intended to be interviewed helped create a comprehensive look at the storm as it was experienced by students, the interactions that occurred between students and staff, and the lessons learned throughout the event and recovery.

Limitations

"Because the researcher is the instrument in qualitative inquiry" (Patton, 2015, p. 1011), it was important to disclose that my role in the setting where the study took place was that of a full-time staff member and adjunct faculty member. One assumption was that I am likely to be biased in that I wanted to believe that FSUPC faculty and staff did a satisfactory job after the occurrence of the disaster. I was also likely to be biased toward the belief that students were satisfied with the efforts that staff made as well as the decisions that took place as a result of the storm. However, I wanted to clarify that any findings from the interviews conducted in the qualitative portion should not be viewed as having a causative connection to the data and trends explored in the initial quantitative portion. The quantitative data reflected the fluid trends of a student population pre and post disaster while the qualitative piece represented the voices of individual students who lived within that context. Listing these assumptions and biases here was important in order to avoid experimenter bias and the development of a dual relationship. Finally, it was important to be aware of the dual dimensions in which I hoped to approach the same event: one that used quantitative numbers to illustrate a more formal picture of the campus

and interviews of those that experienced the event to portray the individuals voices behind the numbers.

It is also important to point out that an interviewee's knowledge of my role could result in reactivity that could have skewed their responses. It is imperative to add to the delimitations that follow-up interviewees excluded any students previously enrolled in any of my courses. As my teaching load is minimal and intermittent, this was unlikely to result in a significant impact to the quality of the sample. Further, although the sample of interviewees was not random, I did not feel this was a limitation as a very specific experience was being sought. Finally, it was unreasonable to interview the initially proposed number of students as well as up to eight employees and this number of intended interviews did not come close to the final, completed amount. Relatedly, the final list of interviewees was unlikely to be representative of the entire student population or include the entire population of identified student success staff.

Summary

Essentially, this dissertation sought to examine patterns or trends of specific student indicators (enrollment, course load hours, and academic outcomes) as well as the interactions that occurred after a significant natural disaster. This analysis was informative for the literature as the challenges associated with being a nontraditional student were augmented with the occurrence of a natural disaster. In an exploratory manner, this study aimed to answer the overarching question of what intrusive advising looked like on a regional commuter campus after a natural disaster—or, at least, if the interactions resembled those that belong to the methodology of intrusive advising. Knowing what occurred or what was labeled as effective could lead to more efficient training for academic advisors and, potentially, increased satisfaction and propensity to seek out advisors when facing issues. Increased knowledge in these areas could benefit not only advisors, but current and future students on the regional, commuter campus. It could also shed light for other institutions of higher education on the practice of intrusive advising and college students living in the aftermath of a natural disaster. Ultimately, this study could inform the development of policies that save time, effort, and academic livelihoods.

CHAPTER 4

FINDINGS AND RECOMMENDATIONS

The purpose of this study was to explore patterns and trends in enrollment, course credit hours, and student outcomes as well as the post-hurricane interactions and experiences of the largely nontraditional student population attending a regional commuter campus. This study sought to examine the academic composition of the student body, how it may have changed after the hurricane, and how advising practices and student interactions occurred in the post hurricane context. This chapter provides a summary of the study including the identified problem of practice and purpose. This chapter then presents the findings from the study and the associated implications, recommendations for both the local context, and directions for future research. Finally, the potential impact and significance of the findings are covered. Concluding this chapter is a dissemination plan for informing stakeholders.

Summary of Study

Student enrollment, retention, and persistence are three critical areas for all institutions of higher education, including Florida State University Panama City (FSUPC). The devastation that resulted from a category 5 hurricane dealt serious blows to these metrics at FSUPC as they became entangled within the context of the recovery process for both the campus and the surrounding community. Although the disaster temporarily deprived the faculty, staff and campus administrators of modern-day academic conveniences and communication capabilities, the campus reopened just 19 days after the hurricane and resumed face-to-face classes. In the weeks following the disaster, the daily endeavor to support students and the numerous interactions with students that took place redefined the typical setting in which advising normally occurs. With FSUPC embracing intrusive advising before the storm, this interaction style likely continued post disaster. The "intrusive" steps taken to provide for students in the wake of a natural disaster aptly defined a variation of academic advising that warranted a closer look at a commuter campus recovering from a major natural disaster. Further, this dissertation in practice sought to not only understand those interactions but to examine the role these interactions may have played in students' recovery, persistence, and academic success.

The problem of practice is the short- and long-term trends and patterns of enrolled students in the wake of the disaster were unknown as well as how student success interactions (including intrusive advising) played a role in the campus' post-disaster response. Further, it was unknown how student outcomes may have fluctuated throughout the event. The hurricane presented the faculty and staff of FSUPC—a commuter campus—with the dilemma of trying to support a fairly nontraditional student body dealing with a multitude of individual circumstances such as destroyed homes, cars, and trauma. Student success, retention, environmental shocks, and intrusive advising provided the foundational elements for the purpose of the study: to describe the academic outcomes, trends and patterns of the student body and explore how students and staff interacted after the environmental shock of a natural disaster. In order to so, a sequential mixed methods approach was used to answer the following questions:

1. What are the patterns and trends in student enrollment, course hour load, and academic outcomes for the student population across multiple student demographics at a regional university campus pre-and post-category five hurricane?
2. What do student success services (including intrusive advising) look like in the immediate aftermath of a major natural disaster?

This section summarizes the problem and purpose of the dissertation in practice while the next section—organized by research question—details the findings with a greater emphasis on the qualitative portion of the study. The most informative figures and tables are included in the text whereas additional data can be found in the appendices.

Findings of the Study

In order to adequately "take the pulse "of the campus, it was important to first look at the composition of the student body and student outcomes across a larger time period. The first research question aimed to fulfill this purpose by understanding any fluctuation in patterns and trends to define the landscape in which student interactions occurred. Additionally, the first research question acted as a canvas to portray the details painted by the individuals who later shared their experience in the interviews during the second portion of the study. With this, the results of the descriptive analysis played a smaller, but essential function of furthering a greater understanding of the information obtained from the interviews. Findings specific to the second research question also include descriptions of both student and staff participants in order to

provide context for the information obtained in the interviews. A brief review of the coding process and how the information gave way to major themes will also be highlighted. As all data were collected during the Covid-19 pandemic, implications and recommendations will also discuss how the worldwide event is relevant for a small, regional commuter campus, its faculty and staff, and the student body it serves.

Research Question 1

The first variable analyzed, Head Count, included the total number of students enrolled each fall and spring semester across a three-year period consisting of traditional first time in college (FTIC), nontraditional, and transfer students. Figure 1 depicts the total number of students using a histogram along with full and part time students in line graph format represented by closed squares and open triangles, respectively.

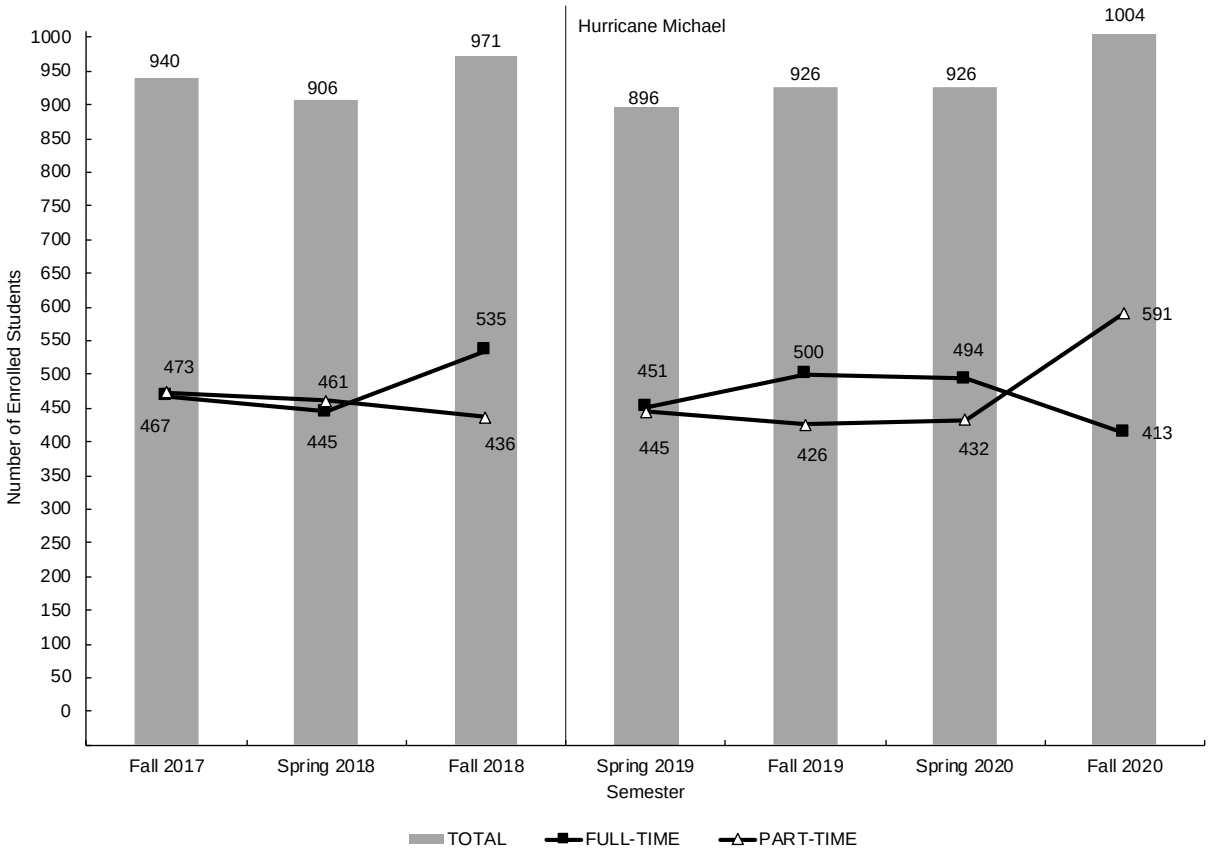

Figure 1. FSUPC Student Head Count from 2017-2018 through 2019-2020: This line graph reflects the number of enrolled students each fall and spring semester.

Above, it is important to note that Figure 1 only included the fall and spring semesters through the academic years of 2017-18 and 2019-20 to allow for a more narrowed focus on variations in the number of enrolled students from fall to spring terms since the hurricane occurred in fall. Although it was hypothesized from earlier reports that the number of students did not decrease immediately after the storm, the semester immediately after the hurricane (Spring 2019) reflects 75 fewer students in total. Further, there was a small increase in the number of part time students during the same comparison period which could indicate full time students decreased their course loads during the recovery period. However, a small fall to spring increase was also evident the following year, so further investigation may be required. A closer look at student credit hours (or course load) revealed additional details as well as a look at specific types of students—starting with First Time in College students—as shown in Figure 2.

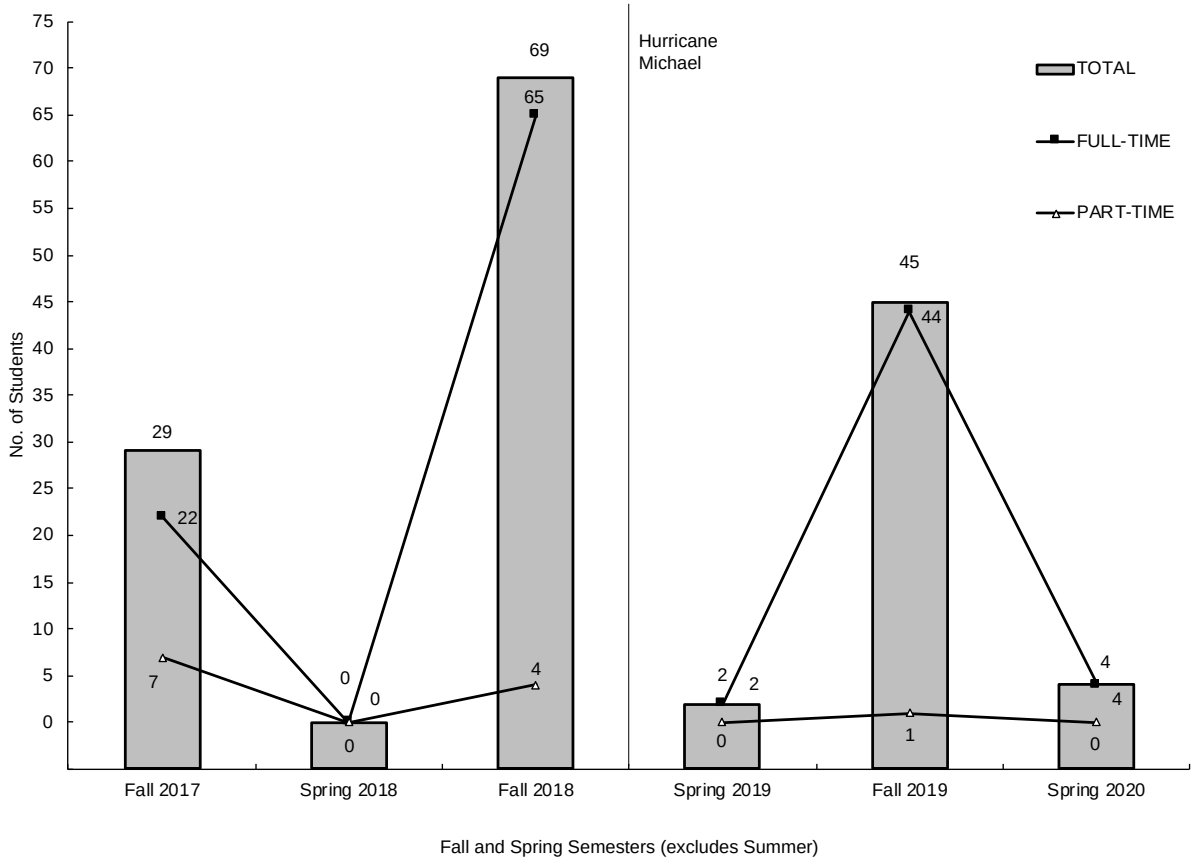

Figure 2. FTIC Students Enrolled Fall and Spring Semester 2017-2018 and 2019- 2020: This figure reflects a total number of new First Time in College (FTIC) students admitted each fall and spring semester for the time period reflected with a bar graph while a superimposed line graph reflects the number of full time and part time students.

Figure 2 depicts the number of First Time in College (FTIC) students admitted each fall and spring semester. This includes "Pathways" students, or individuals not directly admitted to the FSU main campus in Tallahassee who, instead, are given the option to complete their first fall and spring semester at FSUPC followed by an online summer semester. Upon the completion of this three-semester requirement, the student then has the option to transfer to Tallahassee as an optional pathway to being admitted to the University. Full time FTIC students are represented above by closed squares and part time FTIC students with the open triangles. Both of these lines are plotted against a histogram data set that depicts the overall total of FTIC students with Hurricane Michael represented by a phase line between fall 2018 and spring 2019.

The enrollment patterns of racial/ethnic minority students (excluding White/Caucasian students) can be found in Appendix D and reflects 10 fewer enrolled students in the Hispanic/Latino student group and 10 fewer enrolled in the Black or African American student group in the immediate semester after the hurricane. Between Fall 2018 and Spring 2019, racial/ethnic minority students decreased from 144 to 105—39 fewer enrolled racial/ethnic minority students, or about 27% of the total number of racial/ethnic minority students. However, by Fall 2019, the overall number had increased again by 25 to 130 racial/ethnic minority students—almost to the pre-disaster racial/ethnic minority student headcount. Comparatively, although not displayed graphically, the data reflect the number of enrolled white students also decreased by 42; however, with 389 white students enrolled in Fall 2018, this is only 11% of the total number of white students enrolled during that semester. The number of enrolled racial/ethnic minority and nonwhite students appeared to have decreased twofold to that of the number of enrolled white students. Implications will be discussed later in this chapter.

Although FSUPC admitted their largest freshmen (FTIC) cohort the semester of the disaster, subsequent semesters failed to reach the same amount of incoming freshmen. It is possible that recruitment efforts may have been diverted to recovery efforts or to attend to students impacted by the disaster. Further, many schools in the region were also damaged and closed until the end of the fall semester so recruitment visits may not have occurred as they routinely do. However, it is important to note the absence of a complete decreasing trend. Although the same or comparable amount of FTIC students was not recruited, FSUPC was able to admit more FTIC students than in comparison to the fall of 2017. This warranted a closer

look at retention and persistence beginning with a review of the number of degrees award by FSUPC.

Figure 3 displays the combined number of degrees awarded each academic year across the three-year academic comparison period. Most interestingly, the number of degrees increased not only between the academic year of the disaster and the next but also in comparison to the complete academic year prior to the occurrence of the hurricane.

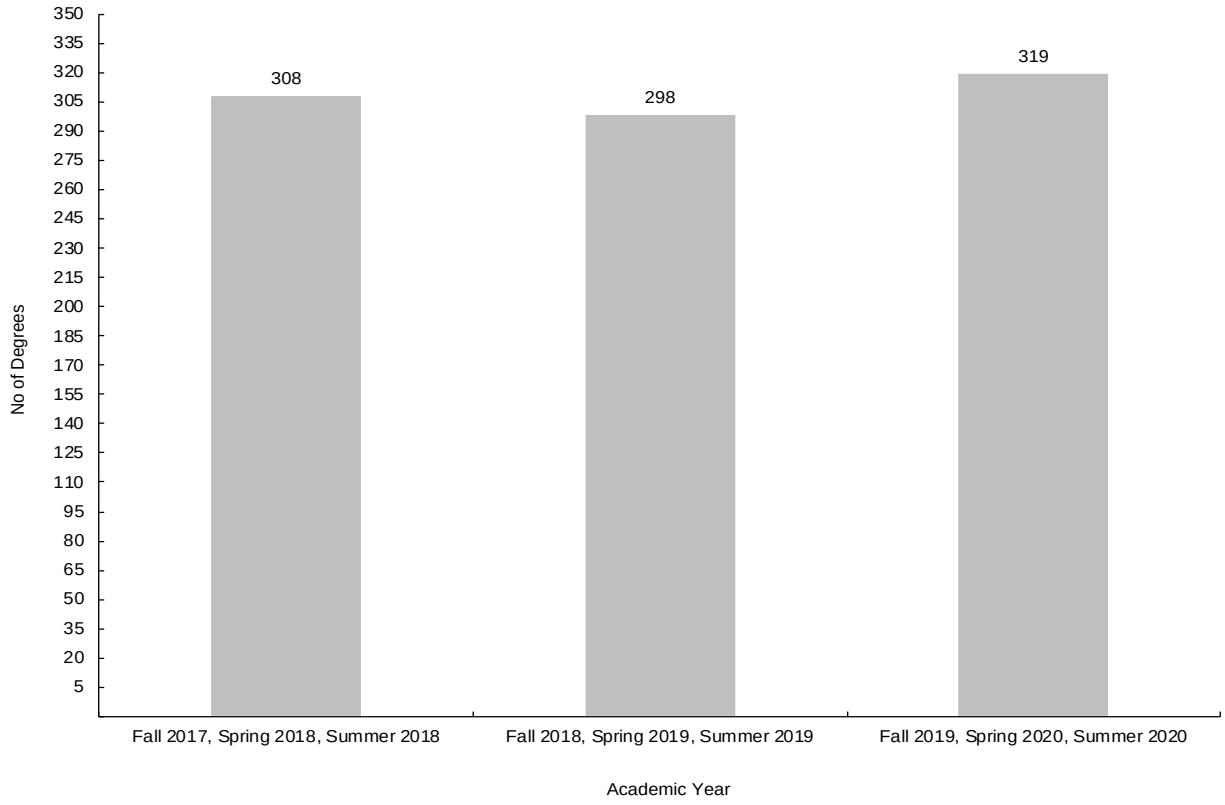

Figure 3. Degrees Awarded Academic Years 2017-18 through 2019-20: This figure reflects the total number of summed degrees awarded each academic year comprised of fall, spring and summer semesters.

With degree obtainment trending in the correct direction, the course of the analysis turned to that of retention. Retention was derived by looking at the number of returning and non-returning students. However, to further explain how these figures are calculated, students who graduate are not counted among those that did not return. In communication with the Office of Institutional Research, although my study seeks to analyze returning students from those who opt to not return and given that the terms “retention” and “persistence” are used interchangeably at

times, the more appropriate term would be "Persistence" rates. "Persistence rates…measure the rate of return from one semester to the next regardless of student type or cohort year. Persistence rates also take into account the students who graduated in the same semester, since those should also be considered as successes" (A. Brady, Personal Communication, August 3, 2020). It is important to differentiate successful persistence from successful degree completion when discussing the number of returning students as all data reflective of students who persist include those who graduate. Inversely, degree completion data only reflect those who graduate.

Figure 4 includes two y-axes: the first primary y-axis reflects a number of students (ranging from 0 to 1000) while the secondary y-axis allows for a percentage comparison. The primary axis is for the line graph and the secondary percentage axis informs the histogram's two data sets in the background. Again, the occurrence of the disaster is reflected with a titled phase line after fall 2018. Looking at the actual numbers and corresponding percentages reveals that although the number of students overall decreased in spring 2019 (immediately after the disaster), a comparable percentage returned. This again increased one year after the storm to 91% of enrolled students returning or completing their degree. The corresponding decrease in non-returning students is reflected in the light grey histogram data set (the lowest percentage and number of students overall).

Although FSUPC experienced a major disaster, the percentage of returning students appeared to increase while the number of students who did not return is reflected above as the lowest since the start of the 2017 academic year. A related variable that was analyzed is the number of withdrawals specifically coded as disaster withdrawals compared to other types of withdrawals and the amount of withdrawals overall across the three-year comparison period. Due to the low numbers of specific withdrawal categories that could have been potentially identifying such as medical reason or mental health, withdrawals coded as such with less than five per semester were combined. These are displayed together in a frequency line graph across each fall, spring, and summer semester between fall 2017 and spring 2020 in Appendix E.

The number of withdrawals at FSUPC overall increased the semester of the hurricane with 29 out of 32 that occurred in fall 2018 contributable to the disaster. However, the other three reasons that students withdrew could be indirectly related to the occurrence of the storm (i.e., citing mental health as the withdrawal reason could be related to stress from the storm). Overall, the number of withdrawals appeared to remain stable. Reviewing patterns in student

credit hours across semesters also informed the type of student that could be impacted by disasters.

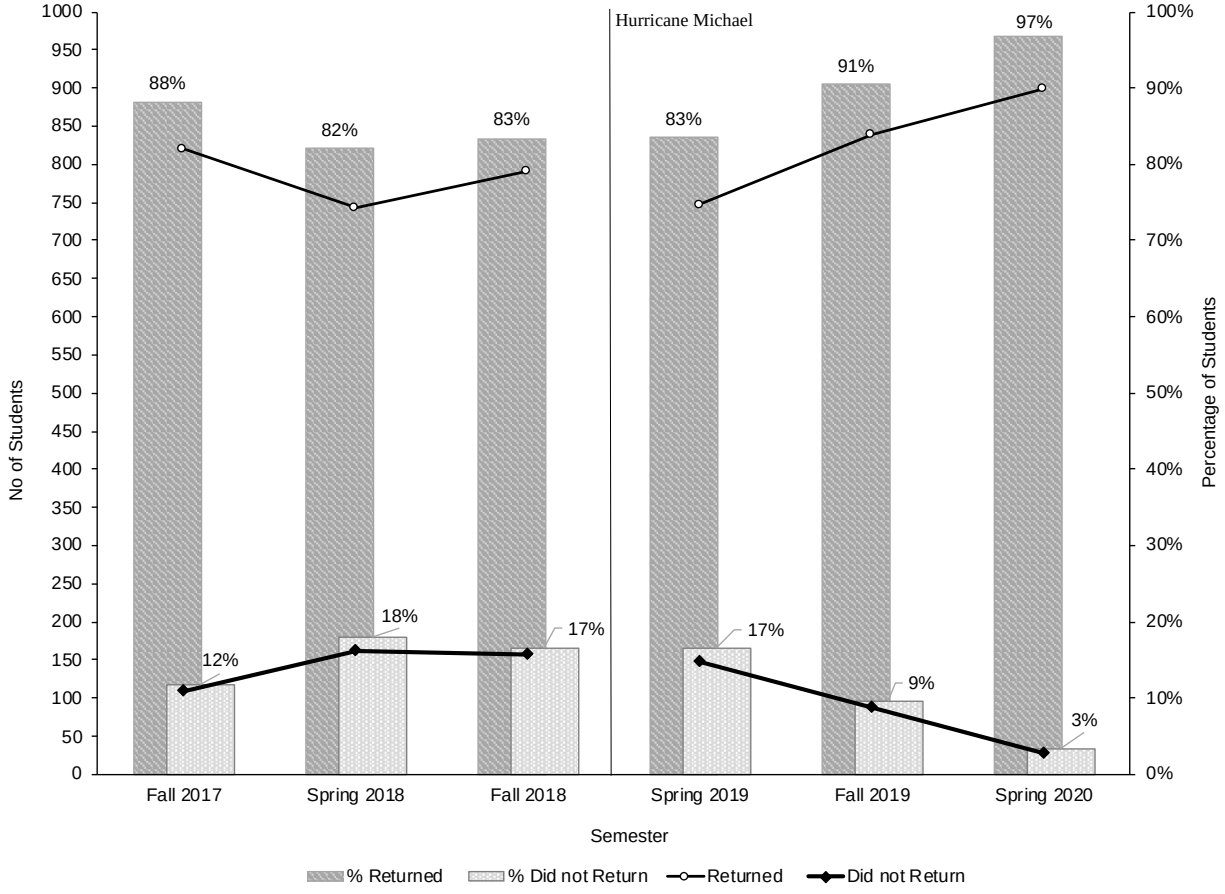

Figure 4. Returning and Non-returning Students: This figure reflects two axes with the number of returning and non-returning students on the primary y axis and the percentage of the student population that returned or did not on the secondary y-axis. Data points are fall and spring semesters 2017-18 through 2019-20.

In figure 5, the total combined number of student credit hours for all enrolled students is represented by the closed circles, graduate course hours by the open squares, upper division undergraduates by the open triangle, and lower division undergraduate hours by the closed triangle with a dotted line. Overall, the total combined sum of student credit hours decreased by 978 hours. While there was a slight increase in upper division undergraduate credit hours between fall 2018 and spring 2019 (from 6,335 to 6,422 hours) and a small decrease in graduate hours, inversely lower division undergraduate credit hours made up much of the overall observed decrease.

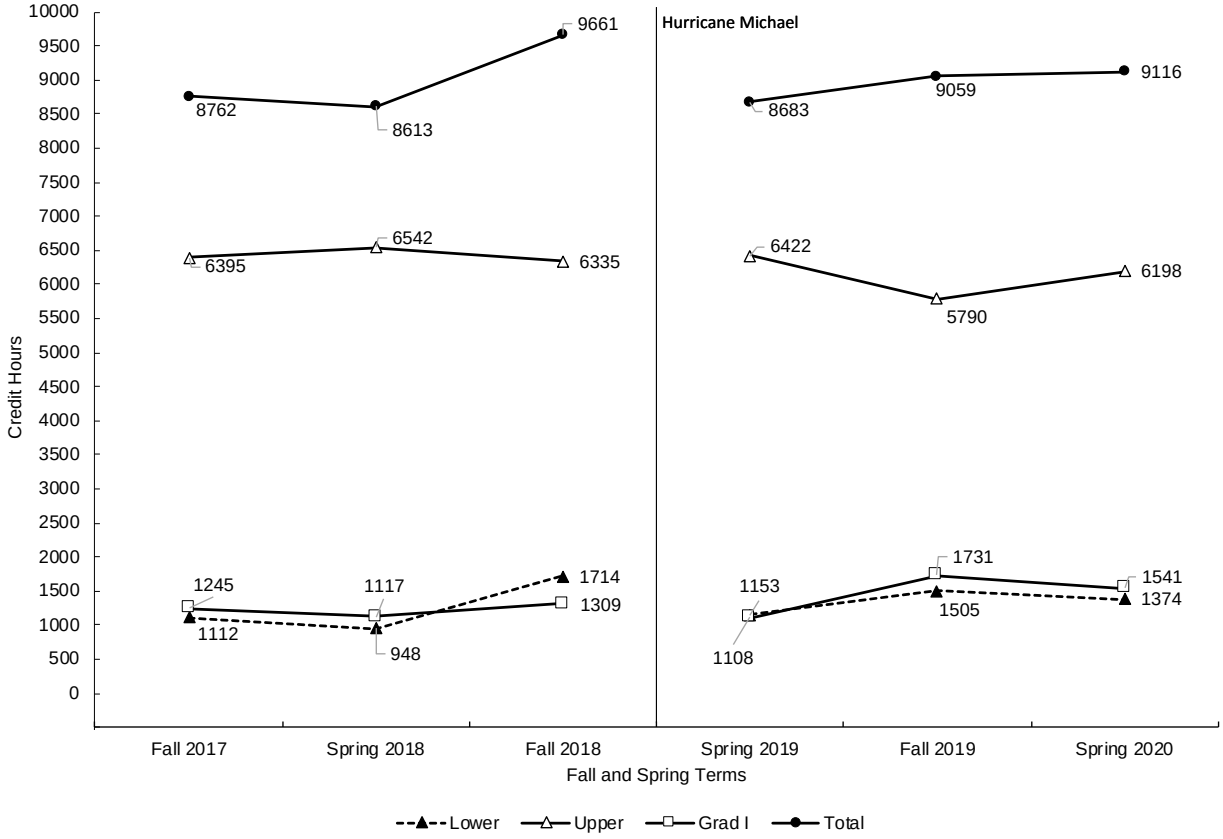

Figure 5. Student Credit Hours (SCH) between Academic Years 2017-18 and 2019-20: This figure reflects the number of credit hours enrolled each fall and spring semester across lower and upper undergraduates, graduate students, and overall.

While graduate student credit hours account for 201 hours of the decrease, lower division undergraduate credit hours decreased by 561—or 57% of the overall observed reduction. This may indicate that lower division undergraduates (and first time in college students) are more likely to decrease the number of hours in which they are enrolled or withdraw from courses more so than other types of students in a post-disaster context. Whether transitioning from full to part time affords some benefit to students or is simply a result of other responsibilities related to recovery after a disaster should be further investigated. One variable that revealed additional information about variation in patterns and trends surrounding the disaster also furthered the understanding of student performance. The combined number of grades that were D, F or withdrawals (DFW) is shown in Figure 6.

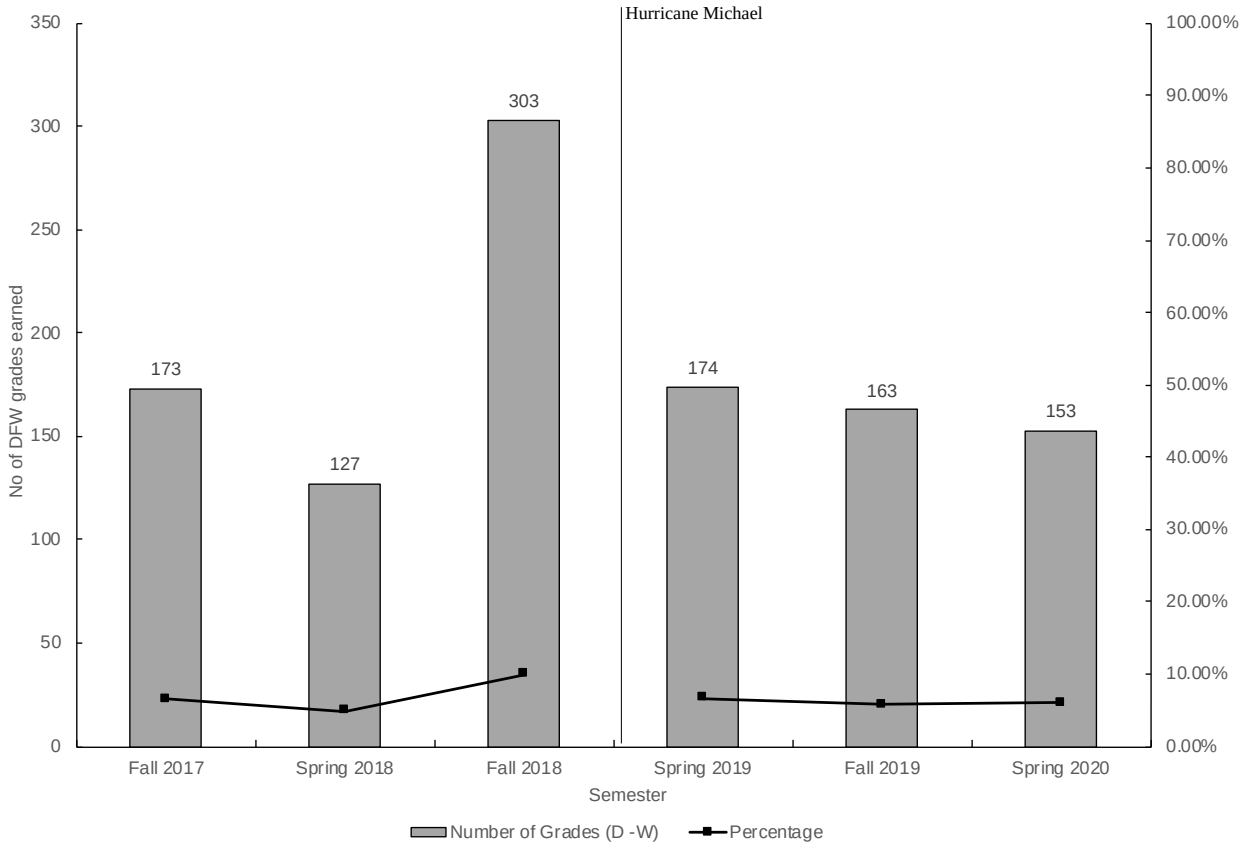

Figure 6. Rate and Percentage of DFW's Across Semesters: This figure includes a double y-axis with the primary axis displaying the number of DFW grades earned across all scheduled courses and the secondary axis displaying the percentage of DWF grades across all grades earned. The data sets reflect these dimensions across each semester from fall 2017 through spring 2020.

Figure 6 features the same data presented in both rate and sum format. The closed squares represent the percentage of all DFW grades received each semester while the histogram portrays the actual number of DFW grades each semester. Upon review of Figure 6, the rate of DWF grades increased in the semester of the disaster in fall 2018 but in spring 2019, the rates appeared to return to levels comparable to the spring semester of 2018 (before the hurricane). Finally, there was a continued decrease in the DWF rate in both fall 2019 and spring 2020 as reflected in Table 4. As indicated, the percentage of DFW grades decreased to near pre-disaster levels by the semester immediately after the hurricane. This underscores the topic of resilience in students and merited a closer look at exactly what took place for students who experienced the event and how the campus, its employees, and its staff played a role in the aftermath of a major natural disaster.

Table 4

DFW Rate and Number of Grades by Semester

Semester	Count of Grades	Percentage
Fall 2017	173	6.50%
Spring 2018	127	4.90%
Fall 2018	303	9.90%
Spring 2019	174	6.60%
Fall 2019	163	5.80%
Spring 2020	153	6%

It was clear that the patterns and trends of student indicators and outcomes varied because of the occurrence of a disaster and the implications of these are discussed later. As the primary purpose of the first research question was to provide a greater rationale for pursuing an answer to the second research question, the data analyzed in this section supported a closer look at key players in the local context to identify challenges, accomplishments, failures, and components that may have helped to mitigate the disaster. There was clear existence of a recovery period of various time lengths that can be seen in the different data analyses above. Therefore, it was necessary to thoroughly explore the interactions between students and the faculty and staff. Lending a voice to those who lived through a major category 5 hurricane not only provided an authentic account of what nontraditional and commuter students faced but it also shed light on the efforts of university employees who worked to restore the achievements they had cultivated and nurtured over years of hard work.

Research Question 2

The second research question, "What do student success services (including intrusive advising) look like in the wake of a major natural disaster?" sought to detail how students experienced the disaster and how students interacted with faculty and staff.

Exploring this question likely contributed the context of student success and advising during a challenging event such as the aftermath of a category 5 hurricane. One-on-one interviews—conducted via Zoom—were recorded and produced detailed transcriptions of each conversation. Interviews ranged in duration from twenty-five to fifty minutes using a hybrid guided and open-ended interview method adapted from Rossman and Rallis (2016). Each transcript was reviewed for accuracy using the audio recording with transcriptional errors corrected. The final transcripts

were then shared with each interviewee as a form of member checking (Shenton, 2004) and participants were asked to read the transcripts of dialogues for reliability purposes. This did not result in any requested corrections or changes.

Student Participants. An email was sent by a university employee proxy to all students who were enrolled during the fall 2018 semester that included an approved information flyer. Although, 10 individuals initially responded to the first recruitment email, only six followed up with scheduling an interview. After a second reminder email was sent, two additional responses were received. One additional former student also contacted me to complete an interview after hearing from an academic advisor who participated. In total, nine students participated in the one-on-one interviews (via Zoom). For each interview, after a period for establishing rapport, approximately 29 questions were posed to students. Table 5 summarizes the demographic information of the student participants.

Table 5

Demographic Profiles of Student Participants

Student	Pseudo-nym	Gender	Age*	Year of Study*	Storm Location	Interview Category	Marital Status*	Dependents*
1	Chris	Male	30	Senior	SL	1	Engaged	Yes
2	Debby	Female	22	Senior	EOSP	1	Married	Yes
3	Kirk	Male	36	1st Yr Grad	EOSP	1	Single	No
4	Florence	Female	30	1st Yr Grad	EN	1	Married	No
5	Patty	Female	18	Freshman	EOSP	1	Single	No
6	Helene	Female	27	Non-Degree	SL	4	Married	No
7	Joyce	Female	27	Senior	SL	5	Divorced	Yes
8	Tony	Male	19	Sophomore	SL	1	Single	No
9	Valerie	Female	62	Senior	SL	3	Married	Yes

Note. Information as of when the October 2018 storm occurred is denoted by an asterisk (*).

Table 5 displays the demographic information of each study participant, including their assigned participant number, self-identified gender, and age. Student year of study ranges from first time in college (FTIC) freshman to first year graduate and also includes a non-degree seeking student. Storm location is represented as sheltering locally (SL), evacuating outside the storm path (EOSP), and evacuating nearby (EN) with nearby indicating the student left their

residence but not outside the cone of uncertainty. Although this could also be termed as evacuating within the storm path, this acronym was chosen to more easily visually differentiate from EOSP. For reference, the category in which the participants was classified is also denoted by the corresponding number including: 1) Returning to graduating/continuing; 2) Returning to withdrawing; 3) non-returning/disaster coded; 4) non-returning/non-disaster coded; or 5) non-returning/delayed re-admission. Each student provided their domestic/marital status and whether they have dependents in order to provide further context for their responsibilities outside of those designated for academic purposes. After the conclusion of each interview, Zoom created a time stamped transcript that was reviewed for accuracy by using the audio recording to correct transcriptional errors. The final transcripts were then shared with each interviewee as a form of member checking (Shenton, 2004) and participants were asked to read the transcripts of dialogues for reliability purposes. This did not result in any requested corrections or changes.

Staff Participants. In addition to the student respondents, three advising staff and faculty advisors that serve the campus' student success initiative were also interviewed. Staff participants' highest degree obtained ranged from bachelor to doctorate. All interviewed staff have a direct function related to student success whether it be as a faculty advisor, supervisor of the advising department or as the director of student success. Additionally, a former advisor was also interviewed who had since promoted to a different—yet, still student-centered—position. Overall, four staff participated in one-on-one interviews conducted via Zoom in a similar fashion to the student feedback but with only 14 questions. One half of the staff who were interviewed indicated they had sheltered nearby during the storm while the other half evacuated.

One staff member in particular, William, evacuated to the Tallahassee area and although that area also suffered damage, it was much less than the Panama City area. It is important to note their locations during the storm as this helped shape their own personal experiences, ability to interact with others, and sheds light on how their perspectives may have formed. For example, the choice to evacuate to Tallahassee landed William in the position to set up a post storm hot line number thereby playing a major role in student interactions. During his interview, William shared a log he recorded of the reasons that students contacted the hotline number. Although unexpected, this became an important source of information that came to light during his interview. This list of reasons for contacting the FSUPC Promise Hotline were subsequently

coded as another source of data upon the completion of coding of all transcripts to enrich the component analysis. This will be discussed later in this chapter.

Initial Coding. To begin, all student interviews were coded initially using the established a priori coding list while simultaneously adding to the list using in vivo coding. This variation of lean coding—as discussed by Creswell (2012)— produced a larger list of potential codes to explore in keeping with the exploratory nature of the DiP. Duplicate coding between the a priori list and the in vivo codes were systematically reviewed and combined to remove overlap. This method was pursued since I noticed very early on that my a priori codes helped to develop a scaffolding of potential themes but fell short in capturing the full spectrum of rich information received during the interviews. Transcriptions of staff interviews were next coded (separate from student interviews) using in vivo coding. I did not use an a priori list as I wanted to generate a completely distinct set of nodes that I could use to compare to the student coding. A refined, expanded code list resulted from subsequent reviews and moved the exploration closer to a more comprehensive analysis.

Upon completion of first cycle coding for each category of data (staff or student), several top level descriptive codes resulted from second cycle coding efforts. The student generated codes and the staff-specific nodes were merged into a longer list of codes after a side-by-side examination revealed correspondences between the two. This was checked via several explore diagrams that were created. Once a central codebook was created, the information that emerged from the staff interviewee, William, regarding students' reasons for contacting the post storm hotline was reviewed. This was included in the analysis as I felt it provided the opportunity for further insight into the experiences of students and to see if any additional coding resulted.

Hotline Specific Information and Coding. Additional information provided by the staff member, William, consisted of logged reasons that each student contacted a hotline number that was set up in the wake of the disaster. This phone number was set up six days after the storm and was overseen from the main campus location of the university until approximately three weeks post storm. The log contained a total of 39 entries which was estimated to be less than the actual calls received since a log was not initially used by William (as he was the only FSUPC employee responsible for answering calls in the first few days of its existence). It is also important to note this number was not distributed or marketed prior to the occurrence of the storm and therefore, there are three different aspects that may have decreased its use. First, it is

unlikely that students knew about this resource. Second, it was difficult to market the number as a resource once internet and phone capabilities were decimated, or third, even if they learned of the hotline number, students were simply unable to contact the number due to the damaged infrastructure.

The entries logged from the hotline were reviewed and immediately coded as HOTLINE so that subcodes could be generated to review but also anchored to the source. As material was reviewed, if it related to an already established top level code, the information was moved and merged into the more relevant node. For example, if a student mentioned a lack of supplies, this information was coded under the node, LIMITED NECESSITIES AND RESOURCES. After all of the entries from the hotline were reviewed, only minimal, novel reasons for contacting the number remained such as financial aid. These were reviewed and helped to refine a second draft code book.

Table 6

Combined Top Level Coding Highlighting Dimensions of Communication

Code Name	Code Name	Code Name
Bonding	**Isolation**	Safety
Class Content or Format	Juggling Responsibilities	Satisfactory Actions
Communication	Limited Necessities and Resources	Self-Directed Students
Connecting and Communicating	Location	Span of Interactions
Disconnect	Perseverance	Strength While Struggling
Disconnection	Persistence	Suggested Changes
Emotional Stories	Post-Disaster Challenges	**Technology**
Encouragement	Preparation and Perception	**Technology was Critical**
Focus on Safety	Responsibilities	We Are Their Home
Fog of War	Resulted in Changes	Withdrawals
In the Future		

Note. Underlining denotes codes from student interviews. Bold relates to communication or a related subcode.

Coding in this manner allowed me to archive a copy of the hotline specific information and retain a copy of coding exclusive to both the staff and student transcripts prior to merging all

codes into a single list. I did this in order to be able to look back at information specific to participants or the hotline log should my analysis present the need to compare these data. A second draft code book included 31 top level codes and these are further explained in order to illustrate how they contributed to the development of themes.

Of the 31 codes resulting, 15 were generated from student interviews, 13 were immediately noted to be related to or potential duplicates of one or more other codes, and 10 directly related to the ability—or inability—to communicate. Table 6 displays a list of all codes with bolding applied to designate the correspondence that was noticed among codes that related to some dimension of communication. Underlining is used to differentiate only the codes generated from student interviews.

Student Participant Stories

In order to appreciate the interactions with the participants, it is important to understand their own personal stories and background information relevant to the disaster. Using the assigned pseudonyms, the following details help to paint the picture of the individuals that participated in the study beginning with the student participants followed by the staff participants.

"Chris," age 30 at the time, took a majority of his classes online as he was lived in the area and worked full time. Although he was employed at the time of the storm and was pursing classes to transition to a more preferred career, he lost his job as a result of the disaster. During the storm, he sheltered in his home only a few miles from the path of the eye wall of the storm along with his two daughters and fiancé. At one point, he swam to a neighbor's house and helped rescue his neighbors, their elderly parents, and their children before their home was compromised. Chris returned after the storm and completed his degree while simultaneously taking a job with a local state college.

Student 2, "Debby," (22 years old at the time) was also married with two children and evacuated, upon military orders, outside of the storm path to South Florida. Since the military base evacuated the residential families very early when the storm was only a category one, Debby and her family did not take a large amount of personal belongings with them. She was in the last semester of her program and only lacked an externship to complete her degree—at the time of the hurricane. Debby was unable to return to her home for three weeks where she found

extensive water damage and mold. She, her two small children, and her husband lost most of their possessions including a new laptop that she purchased for her externship.

Students 3 and 4, known as "Kirk," 36 years old, and "Florence," 30, were both graduate students in their first semester who both evacuated (separately). Kirk evacuated to another state outside the storm path while Florence evacuated nearby. Kirk left his apartment which suffered water and structural damage and, although he returned to live in the apartment for approximately one month after the hurricane, he was unable to continue doing so and had to relocate to a condominium in a nearby city. He watched the first hours of the storm via his webcam until the intensity of the storm disconnected internet access and then continued to watch via the Department of Transportation traffic cameras until they were destroyed. At the time of the interviews he was in his last semester of graduate school and was actively involved in completing his required experiential clinical hours.

Both Florence and Kirk had their first semester of graduate school and first clinical placements disrupted by Hurricane Michael as the storm destroyed the hospital to which they were assigned. Both were in orientation at the local hospital when they learned of the storm but unlike Kirk, Florence resided in a rental house locally with her husband and two other students from her cohort. She evacuated to the Tallahassee area at the suggestion of a faculty member who lived on the same street. Florence, her husband and two peers—none who were experienced with hurricanes or from the area—evacuated with the faculty member to the Tallahassee area. Graduate students are not allowed to have outside employment and Florence's husband also worked from home—a factor that complicated their recovery.

Student 5, known as "Patty" was an 18-year-old freshman who resided in a local apartment near campus. She was also part of the Pathways Program and moved to the area two weeks after graduating from high school. Patty's support system was over four hours away from the campus and coincidentally, she attended a family vacation the weekend before the storm. On her return commute, she diverted to her family home at the behest of her family when the storm was upgraded in intensity. She sheltered well outside the storm path without retrieving any of her additional possessions. She had previously experienced Hurricane Irma and was able to travel around her home area and obtain necessities within 48 hours of that storm. From her location, she was also able to communicate via text to a large group of other Pathways students and received information sent out from the university. Patty and the majority of the Pathways

students relocated to the Tallahassee campus to reside in university housing only a few weeks after the occurrence of the hurricane. This was due to the severe lack of housing in the area that offered little option to students who lost their apartments and rental homes.

"Helene," 27, was a non-degree seeking, graduate level student that had purposefully enrolled in a face-to-face math class offered at the Panama City campus. She did so since she had previously experienced difficulty with the same course that was offered online as part of her online graduate program. Helene and her husband resided approximately one hour away from campus and had no children. They sheltered in their home which was located in the storm path but did not experience major damage to their residence. She also reported only being without utilities for a one week period. She received her information from her professor as she did not use social media frequently. The class she was enrolled in was necessary for the continuation of her program and she expressed her worries surrounding it being canceled as this would have postponed her degree completion date.

The seventh participant, or "Joyce," was a 27-year-old senior when the storm occurred. She resided locally with her young daughter and worked as a first responder while finishing her degree via an online program. Her daughter was visiting her father out of state the week the storm occurred and Joyce worked while the storm hit, sheltering at the local county jail facility. Although their home suffered only minimal cosmetic damage, Joyce withdrew from all of her classes due to the increased demands of her job and the lack of internet (that spanned two months). She slept in her car for three days after the storm as she took on multiple overtime shifts in order to allow her coworkers to attend to their own homes and families. Joyce re-enrolled the next semester and completed her degree one year after the hurricane.

Student 8, "Tony," was 19 at the time of the hurricane and resided in the area with his family who owned a local small business. He and his family members sheltered in the main closet of their home throughout the storm and even though the storm hit mid-day on a Wednesday, Tony's out of state relatives surprised them in the early hours of Friday morning to drop off supplies and food. His family immediately began their own repairs the morning after the storm using the tarps that were brought to them and then were able to tarp several of their neighbors' homes. Upon securing the roofs, Tony and his family navigated the roads to check on their store and found it completely leveled. Although he had to forgo a research project he was completing, Tony continued his studies and graduated the next semester.

"Valerie," then 62 years old, was an online student who had returned to complete her degree after several years. She worked while pursuing her degree, was in her senior year the semester that the storm hit and was projected to graduate at the completion of summer 2019. She and her husband's home experienced major damages and her husband's place of employment was destroyed leaving him unemployed. They also experienced a significant period without internet. As a result, Valerie took on 16 hour shifts at her own job and dropped the courses she was taking. She did not return to finish her degree and, at the time of this study, she had not re-enrolled.

Employee Participant Stories

It is equally important to understand the experiences of the faculty and staff who participated in the interviews. Being that both employees and students were impacted by Hurricane Michael, the contexts of their personal lives helps to enrich the statements that resulted during the interviews and shed light on any similarities in their experiences or recovery.

Staff participant 1, or "Alberto," served as the Director of Student Success and had been employed for approximately three years. Alberto, who was 43 years old at the time, rented an apartment locally but commuted to his own home on the weekends where his family resided during the week. The commute was over six hours away and well outside the path of the storm. He chose to evacuate to that location upon the closing of the university and campus. Alberto's professional duties included but were not limited to overseeing the Pathways students and other first time in college individuals and managing the recruitment office and employees. Alberto remained at his family home for approximately two weeks after the storm before relocating to the Tallahassee area in order to help staff the Hotline number. Additionally, Alberto was able to pull critical student data and information and disperse it to administration, faculty, and other employees. At minimum, this aided in contacting students and coworkers since employees locally had the barriers of no internet, utilities, or ability to access the university databases.

"William," age 51, was the supervisor of the advising department who had been employed for more than five years and who actively participated in student advising efforts. In addition, he also served on the Crisis Response Team and attended several meetings regarding the storm status and campus' plans prior to the occurrence of the hurricane. During his interview, William offered the additional information regarding the Hotline as he took the lead

on establishing the mechanism. William worked alongside the University Registrar's office and was tasked with getting the hotline information out through as many communication channels as possible. He was able to work from and operate the Hotline after he evacuated to the Tallahassee area to a family member's home. This was not far enough to be outside the storm path and he was classified as evacuating nearby. The Tallahassee area did experience damage and utility outages but not severely enough that William was delayed more than one to two days in launching the hotline. After some time, Alberto joined William in Tallahassee where they were able to relay needed information to coworkers trying to work from the heavily impacted Panama City area.

"Nadine," staff number three, was 52 years old at the time and lived less than two miles from campus. Divorced, she lived alone and had been employed for more than five years. At the time of the storm, she was an academic advisor. At the time of her interview, she had promoted to a different department but in a similar position. Nadine sheltered in her home and during the storm, she recalled being on the phone with her daughter when her home collapsed on her. She was pulled from the debris by her neighbors during the passing of the eye of the storm and sheltered the second half of the storm with them. The next day Nadine moved into her daughter's unscathed home on the beach side of the area. She reported to work the following Monday to only discover from the campus police that the campus remained closed.

The last staff participant, "Rafael," was 33 years old when the storm hit and possessed a doctorate level degree. He had been employed for approximately four years as faculty when the storm occurred and, in addition to serving as a faculty advisor, he also served as the Undergraduate Studies Area Coordinator. He resided with his wife and child locally and, with his family safely out of state to stay with relatives, he sheltered in his home. After the storm, his home was damaged but livable and he found that his cell service provider's services were intact. He was able to make phone calls and communicated frequently with campus administration. With little to do physically, he drove to Tallahassee to aid in communicating to students and to help to meet the needs of students who called the Hotline. He was one of several individuals that worked to piece together the campus' recovery efforts—as reflected in the analysis.

Results from the Analysis

After several coding cycles, the results evolved through the evaluation of overlapping information and topics. This is discussed next with different examples of these correspondences reviewed. The process of analyzing the material in this manner highlighted major nodes throughout that centered around three main central domains. These domains resulted from reaching a terminal saturation point of "condensation" of the data (Miles, Huberman, & Saldaña, 2020, p. 8). Each of the three domains and its related nodes will be discussed before reviewing the six themes that emerged.

Supporting Examples and Correspondence in Coding

There were several nodes that emerged from student interviews that corresponded with nodes that were produced from coding the staff interviews. For example, BONDING emerged after several cycles of coding the staff interviews while CONNECTING was a node produced from student interviews. Further, from the staff-related material, DISCONNECTION and FOG OF WAR resulted while prior to that, DISCONNECT was generated from analyzing the student interviews. For instance, Joyce stated, "I didn't really appreciate the response from Tallahassee. They didn't quite understand what it was that we were going through." Relatedly, during the staff interviews, Nadine commented, "It was just mainly the Tallahassee instructors that didn't really understand" while Alberto also referred to "a huge disconnect in the message" of what students were told locally and by others in Tallahassee. Similar correspondence was noticed regarding the nodes of JUGGLING RESPONSIBILITIES (student-related node) and STRENGTH WHILE STRUGGLING (employee coded phrases).

Further, both groups of interviewees also mentioned topics and experiences that were coded under SAFETY (students) or FOCUS ON SAFETY (staff) as well as TECHNOLOGY (this node emerged in both student and staff analyzed interview data). The dimension of technology became more and more important for the progressive analysis toward themes and patterns as it appeared to be a critical component of post-disaster interactions or lack thereof—for both students and staff. As examples: Helene noted that "having the Wi Fi back up and having places to go and being able to study was a big part" and Chris stated, "Both my job and my classes wanted to start up fairly quickly but with no access to, you know, obviously all the phone towers were down, we couldn't communicate with anybody and that meant no internet."

Similarly, Nadine made the following comment regarding students: “A lot of these people, they didn’t have internet…a lot of them, you know, for over…well, over a year, and so they had to go to libraries and that shows you how much they were dedicated” while staff member, Rafael noted simply, “Technology ended up being a big part” of the post disaster context.

In order to fully understand the importance of TECHNOLOGY, a concept map was created to investigate how it relates to the interactions and the types of interactions with staff and students. Technology affords communication and as illustrated in the concept map in Figure 7, communicating, or interacting, appeared to be important as it was mentioned by all of the students and staff participants.

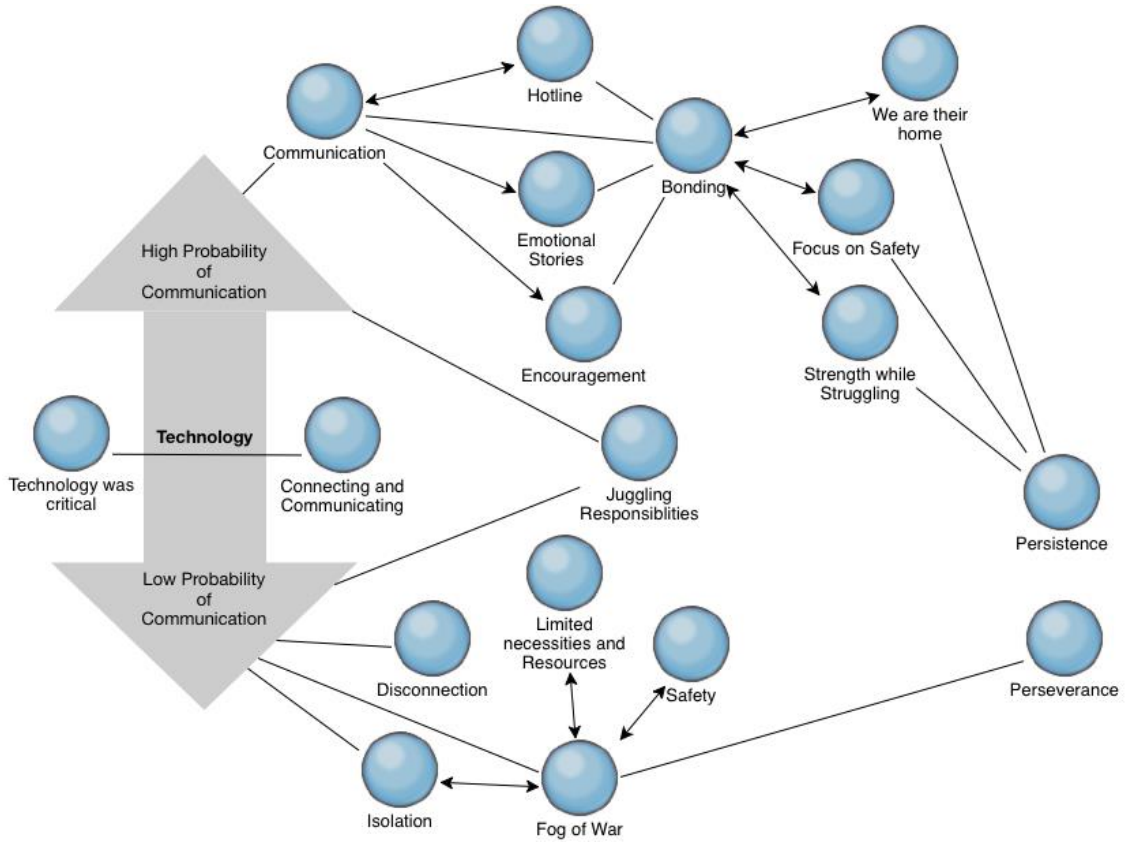

Figure 7. Concept Map of Technology Related Nodes: The figure above displays the interconnected nodes that demonstrate the relationship between technology communication and interactions within the context of post disaster academia.

As illustrated by the codes displayed in the network, technology provides the ability to not only communicate with others and share information, but reflects how communication can become the foundation for bonding, formulating how to juggle responsibilities, providing

encouragement, mediating issues of safety, and ultimately may have value in terms of persistence. Technological capabilities likely enhances the frequency of communication but without the option to rely on it, it could be hypothesized that the limited avenues to communicate with others (phone calls, face-to-face conversations) increased in value, which in turn, may have helped individuals to bond.

Low probability of being able to communicate, or the lack of communication, was noted by one student as likely contributing to an observed DISCONNECT between those experiencing the disaster and those external to the situation. Chris reported, "I do think there's a huge disconnect between Tallahassee and Panama City. And so I don't think they fully understood what it was exactly we're going through until, you know, a couple weeks and they finally started listening and they seen [*sic*] it all over the news." Being isolated (ISOLATION) because of a lack of ability to communicate may have also contributed to an emotion I noted in the interviewees as Helene stated, "If I were a sole student by myself...I think it would be pretty nerve wracking going through a hurricane by myself, if I had chosen to stay. So I think communications definitely empower someone that is on their own to be able to feel like they're prepared." Without technology and the ability to communicate, it can breed confusion and increased feelings of isolation.

This is best presented as what can only be termed a variation of a "FOG OF WAR" (a term provided by William). Although a majority of the interviewees were observed to become emotional at some point, it wasn't until an interview with a student success staff, William, that I was able to accurately label the concept. "A fog of war…you don't know what's going on because there's just so much environmentally…externally going on around you. Its emotional…its chaos." Relatedly, other staff noted that students and colleagues appeared to be "in shock" and how "it was just mainly the 'not knowing'...they couldn't even imagine worrying about classes at that time."

Another major node that developed throughout the analysis was JUGGLING RESPONSIBLITIES which is indicative of the multiple responsibilities facing students post-disaster and the hardships experienced. Such experiences may have helped shape the content coded under EMOTIONAL STORIES as examples from both sets of interviewees support how the experience was, in the words of Nadine, "more personal for us all" and how each of them, as stated by Joyce, "came together collectively with our, you know, with our trauma." William

reflected, “The first, probably, 10 to 15 minutes were telling me their story...what happened... it was a lot of tears.” Again, Nadine also independently used similar phrasing: “You know, it was, it was a lot of different stories.” While interviewing staff, it became evident that listening to these stories was difficult for the staff responsible for interacting closely with students: “You're hearing these things, yeah it digs pretty deep” as William stated and in the words of Alberto, “That was my big issue, trying to figure out what was best for each student.” Relatedly, Rafael referred to a “shared trauma…that idea that we all experienced this kind of once in a lifetime catastrophic event and everybody has a story around it.”

The toll of not only trying to help the students but also maintaining some sort of STRENGTH WHILE STRUGGLING was evident in the emotional interview responses from staff recorded over two years after the event. “It was just really emotional, the whole thing (pause)…each student had a (pause)…just a horrifying experience (crying)….because I had experienced it, I know how traumatic it was for them,” stated Nadine. Staff experienced the same struggles as their students and the surrounding community as evidenced by the following: “Unfortunately, I lost my house while I was in it.” While one student, Joyce used the word “trauma” several times throughout her interview, Nadine described a truly traumatic experience: “The worst part for me was I was on FaceTime with my daughter in Colorado and everything… the fixtures start exploding, everything started falling in and we lost connection.” Nadine received a call from her neighbors who alerted her about her roof being ripped off. Because of that call, she was able to navigate to a corner of her brick home and brace herself between her couch and exterior wall and recounted, “It was bizarre. I could literally feel the brick wall just kind of pushing on me, so it was quite intense and water started coming up, water was coming down (pause)…It was two and a half hours of not knowing what was going to be.”

While the student, Debby, commented, “I would check my phone because I had lost my computer,” Alberto reflected, “I lost my entire apartment and most of the furniture.” With little to do locally and home repairs that could not yet be resolved, Rafael traveled two hours to continue working from the main campus. This strength became even more evident in Nadine’s story as she lost her home on Wednesday and reported to work five days later on the following Monday. She explained:

> The very next Monday, I showed up to work and I think it was the officer that met me and said, ‘What are you doing here?’ Well, I’m supposed to be at work so it

> was kind of strange for me. When he said, 'You know, you won't be having work for a while,' it was mainly just kind of trying to go back through the house to see what we could salvage…you know, just checking…I didn't have anything else to do.

While reviewing the material coded under this node, I also noted that among their loss and exhaustion, expressions of praise and strength (ENCOURAGEMENT) also coincided. As stated by William regarding what he told students over and over:

> Don't worry. We're not going to let this negatively impact your academic standing. In moving forward, you know, we will work with the instructors to assign an incomplete and that will enable you to make up whatever work you may have missed. As a result of this, it doesn't negatively impact you academically. We will work with you.

Staff showed strength for others while struggling with their own challenges even as much as prioritizing the student as an individual human being over their desire to avoid attrition and boost completion rates. As stated by Alberto, "That's what hurricane Michael taught me…to be ready…to tell the students, your education is important but if you can't continue your classes, let me counsel you through that." Further, William also noted this specific type of encouragement: "I think we're able to look at this from a, from the perspective of 'Okay look, it's school, it's college. It's not going anywhere I can always come back to it....My house. My family they're what's important to me. I know I need to focus on that'." Finally, this type of encouragement was beneficial as evidenced by Kirk's comments: "They were able to give us a little bit of slack and I feel like we took advantage of it to everyone's benefit. You know, as evidenced by the fact that we're all finishing. Well, now we're going to go and graduate, you know, and go to work so they cut us a little bit of slack and I think it paid off."

INTERACTIONS between students and employees (advisors, faculty, admin, all) appeared to occur similarly to how they did before the storm with the exceptions of email and other forms of interactions contraindicated by storm damage. Patty mentioned lunches with the Dean that occurred earlier in the semester prior to the hurricane while also commenting that the Dean called her personally after the disaster: "He called all of us individually…and I think about that a lot." Interactions via phone and in person may have increased after the hurricane—especially so for first time in college/Pathways students. Each interviewed student indicated they were contacted by someone, multiple times, or by multiple employees. Overall, this is surprising

given the limited ability for assigned staff to contact students in some form or another and even more so when considering there are only three academic advisors for the campus. Joyce, who withdrew after the storm, offered a good example of the interactions with their advisor: "She was amazing, she, you know, I got a phone call from her just checking in, but she's always been a really, really good support for me. Um, I cried in her office. She got me back on track after I was able to go back and kind of, you know, figured out what needs to be done for me to graduate."

All of the student interviewees reported they were contacted by FSUPC employees with three students indicating they were contacted by the Dean personally (via a phone call or spoke to him face-to-face). For example, as Patty stated, "Dean Randy he reached out to me...just had a personal call from him one day;" and Joyce reported, "Dean Randy Hannah, he called all of us individually after it happened. Tony indicated that he was able to speak to the Dean while on campus to offer ideas and suggestions in the wake of the disaster. This pattern continued among the ranks with faculty also contacting students in their classes: "Dr. Cobb reached out, personally, um, and she was pretty adamant about getting responses back from all of us so that she could know that we were a safe," Helene commented. Kirk also praised his faculty, "They could not have been better. They would call us. I remember, like initially it was very soon after the storm that they were trying to do a roll call on everybody just to account for everyone. And then it was a matter of, 'What needs to have, are they being met?' I didn't, I didn't really have any issue taking care of myself but that meant a lot to me they were very, very concerned with our safety and well-being." Furthermore, Patty—part of the FTIC cohort of 2018 who opted to relocate to Tallahassee—also praised the academic advisors and student success staff for meeting the Pathways students on the Tallahassee campus to assist them in their relocation: "The Panama City staff were the ones that were there when we all came into Tallahassee. It was a Sunday afternoon and they're like, 'Okay, let's figure out how to get you in a dorm…' And so they were the ones that like came in and helped us."

By extension, these interactions afforded the students and staff the opportunity to communicate and share stories. As a result, students valued the opportunity to interact with others post-disaster (especially considering the overall lack of communication capabilities in the area). Tony hinted at this, "I think the number one thing is that they (referring to students who experience disasters) need is someone just to listen. You know, you don't have to have, like, you

know, a chart saying you know that they need…it has this, she has that, you know, questions and everything, just like listen to the story because just listening to the story, you'll find out what they need." It is also evident in Kirk's statement: "I can't really overstate the value of feeling like somebody cares actually cares whether or not you succeed or how you are doing."

Whereas it is possible that interactions experienced before the disaster may not have been as highly valued due to their intrusiveness (getting phone calls from an advisor and emails from faculty about missing class), routineness (reminder emails to enroll), or simply the individual's choice to self-advise (given the information they were able to access online). As noted by Tony, "I made up my mind of kind of my own plan of how to go through the university system." With the occurrence of a natural disaster, the level of interaction appeared to maintain or at least increase due to the content of the conversations (the EMOTIONAL STORIES) and the students' desire for any information reached a high value as the disaster persisted. This is reflected in Debby's emotional comments about not hearing from the military base about their home, "I didn't know that we were—like, our house was destroyed—we were homeless! We literally were homeless for like a month" as well as Kirk's frustration with this living situation: "I can't [*sic*] get any information from my landlords about how long is this gonna [*sic*] last…when will the repairs be made! After a month or so…months or six weeks, like the stress of that was really cumulative and it started to get old. It's kind of like CoVID. I started to get hurricane fatigue." This value likely extended to information specific to their education and the campus.

Relatedly, another emotion reported was GUILT. Although much of the student population and surrounding community lost items, homes, and even family members, other students fared much better during the storm—including two of the participants. This was a surprising pattern that emerged from the analysis. As Joyce explained, "I dealt with a lot of guilt because my house wasn't destroyed during the storm, and it was just me. You know…when I knew my coworkers who had kids, and you know, all kinds of things…they didn't have anything to come home to, so I dealt with a lot of guilt." Tony also similarly reported, "I felt bad for them and I knew there was nothing I could do, you know. I feel guilty." These statements coupled with Debby's reflection that "when you think you've lost everything you know that you own, like nothing will compare" highlight the emotional range of interactions and experiences of the students enrolled during the hurricane.

It is important to highlight the process of how the data was reviewed since it represents the voices of the participants. The results of this analysis were revealed with each additional layer of exploration. Each subsequent analysis moved the study toward the development of specific domains and these were ultimately used to develop the central themes of the study.

Central Domains

Prior to a thematic review, it is important to understand the three central domains that act as the foundation for the development of the themes. These domains are highlighted in Figure 8 and illustrate the related nodes central to each of them.

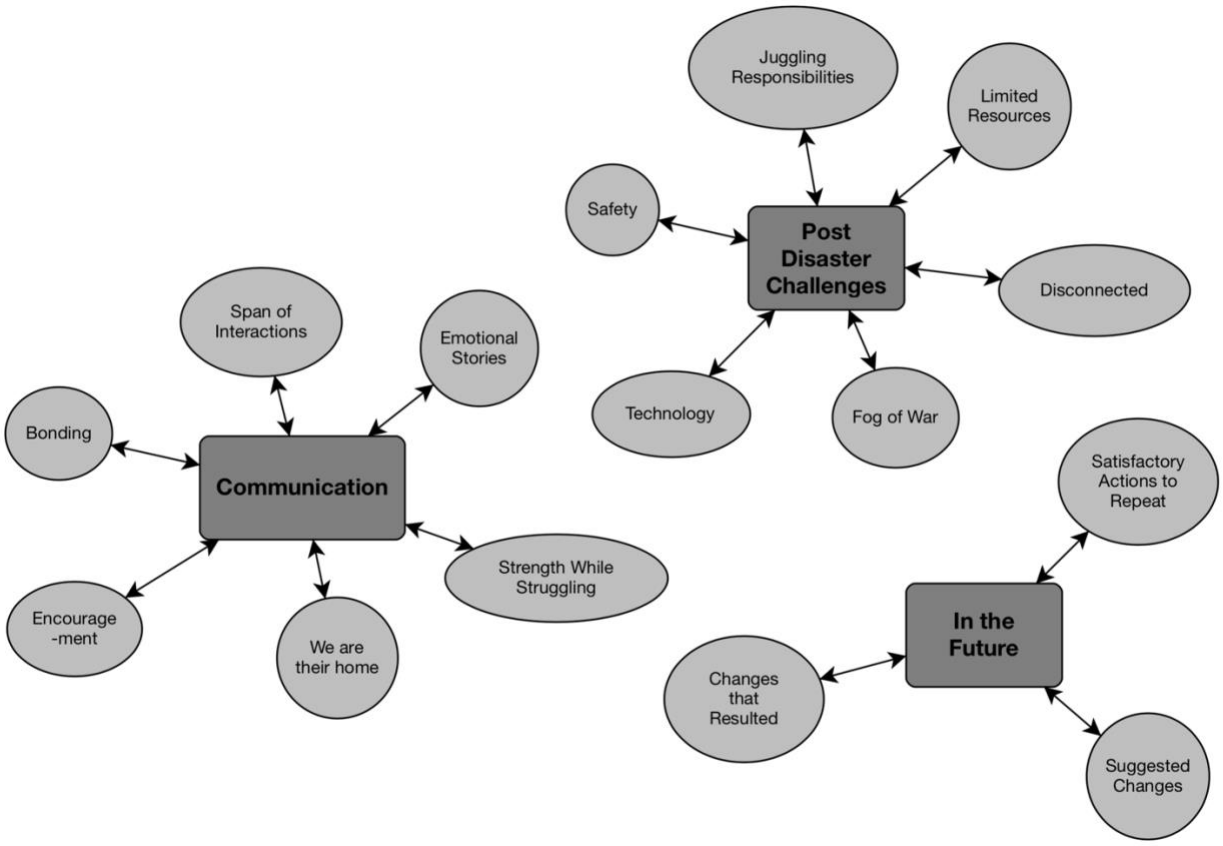

Figure 8. Three Central Domains for Thematic Creation: The figure reflects three main themes that emerged during the analysis that were used to develop and refine the themes central to the research question.

The first central idea, or domain, *communication* encompasses the different dimensions in which communication occurred. Students and staff appeared to bond due to the shared experience of the disaster through the sharing of stories, full of emotions, and the staff

attempting to encourage the students they encountered. Although, the span of interactions appeared to be overly positive and satisfactory, it also produced an understanding by staff that the campus was "home" or a source of refuge for many of those impacted by the storm (as evidence by the content coded under this node). Second, another central domain was the *post-disaster challenges* experienced by both students and staff. For instance, not only did students face safety concerns such as sanitation, the number of responsibilities they had to juggle increased or intensified. This all while being disconnected from those that technology routinely afforded them access and with limited resources and necessities. This likely contributed to the observations of being in "shock," not knowing what to do and the overall "fog of war." The last domain, *in the future*, represented the statements about the changes that inevitably resulted from the hurricane, suggestions for further changes, and the actions that were seen as satisfactory that could be repeated upon the occurrence of a similar event. Several reoccurring themes began to emerge during the analysis after considering the central domains that connected the nodes. These are discussed next.

Summary Themes

The analyses produced six overarching themes: *Communication and Connecting is Extremely Valuable*, *Focus on You and Yours*, *Post-Disaster Challenges are Multi-faceted*, *Recovery Fog*, *External Empathy and Disconnection*, and *The Future is Born of Change*. First, communication and the act of connecting to others appeared to be extremely valuable to all participants, regardless of whether they were students or staff. The ability to connect to others, obtain information, and share their story appeared to be initially more valuable than simply obtaining information about grades or classes. The same could be said about staff who interacted with students as a reoccurring pattern observed in the interviews was the encouragement for the students to focus on themselves: humans first, students second. Over and over, staff encouraged students to focus on their safety, take care of their family, and that FSUPC would be there for them and they would work together to get them to the graduation milestone—the second theme observed.

The third theme that emerged was that post-disaster challenges for both students enrolled at a regional, commuter campus and university staff are multi-faceted. From students worrying over withdrawal fees and course sequences to finding housing for their families, the trials

encountered by students ranged in severity and were easily exacerbated by demands of their jobs, limited resources, and the loss of technological luxuries. The lack of internet in the area and most of the surrounding counties was a critical difficulty—as many of the interviewed students noted. Not only were they unable to communicate, they were unable to access online class content, file insurance claims, and learn desired information. Overall, these hurdles may have been easily navigated were it not for the extended duration under which disaster conditions were at play (such as the lack of internet for up to three to five months post disaster for some). The sheer longevity of recovery may have contributed to the fog that was mentioned by staff and alluded to by students: the fourth theme that surfaced.

Students indicated a concurrent desire for the campus's reopening date and recovery plans to be made more transparent along with the acknowledgement that campus leadership likely did not know when the campus could be functionally restored—a topography of the overall recovery fog felt at many different levels. Comparably, faculty and staff were not only dealing with the same losses and barriers as their students but they were able to shed light on an additional challenge: they devised different data sets to track such students who withdrew, decreased credit hours, and those who requested incomplete grade agreements. These data sets and necessary efforts became increasingly difficult to track as the recovery period continued to persist.

A fifth theme is that it was difficult to muster empathy from areas outside of those that were heavily devastated or individuals removed from the impacted area, especially as more time passed post disaster. Both staff and students interviewed indicated that most of their issues stemmed from their attempts to fulfill their coursework specific to courses coded for the primary campus (taught online from Tallahassee). This disconnect is interlaced with the lack of communication capabilities and the reliance on technology that was just not possible after the occurrence of the hurricane. Students indicated that individuals who were less severely impacted superimposed a shorter recovery timeline onto the local, surrounding community without realizing the damage differentiation. In short, there was a breakdown in empathy from individuals removed from the situation.

Finally, the sixth and last theme, the future is born of change, is situated in the fact that interviewees indicated both a number of satisfactory actions to repeat and suggested changes should a similar situation occur. They also, along with the staff interviewees, acknowledged the

changes the disaster brought about and expanded upon which components they would have liked to have in place at the time of the disaster. Foremost, was the problem of livable shelter in the area post disaster. Students indicated that campus housing could have helped alleviate the housing crisis that ensued in the area following the occurrence of Hurricane Michael. At the time of the storm, the campus had only just begun to discuss potential funding sources and rudimentary plans for on-campus housing. All interviewees expressed satisfaction with the campus proceeding with construction on apartment-style student housing scheduled to open in the 2021 fall semester.

Students also indicated that if another disaster were to occur, information be available in advance regarding the reopening plans and references to contact, although they also acknowledged it is difficult to carry out any type of plans given the unknown disaster context. However, as the FSUPC Promise Hotline number was only established post disaster, staff interviewees noted they felt more prepared having this experience and confident in their ability to disseminate such information in advance should another storm or event threaten the campus. Students were most appreciative of the Seminole Emergency Fund that became available to applicants in need. Other suggestions can be viewed as relating to the other observed themes as students suggested the delivery of gas (limited resources), the availability of phones for use, and appreciation for the quick availability of internet on campus (both can be related to the desire to communicate). Student interviewees noted a mixed reaction to resuming classes so quickly (19 days after the storm) while some individuals noted the desire to complete their classes online from a temporary evacuation location while others—those unable to leave the area—expressed gratitude for the ability to return to a location with electricity, internet, and air conditioning. Overall, students expressed an appreciation for the campus' response after the hurricane and felt the faculty and staff responded "to the best of their ability."

Statements from students echoed a genuine belief that the campus and its employees would use the experiences accumulated after the hurricane and throughout the recovery process to meet future challenges in a more prepared manner. Given the changes and long term challenges presented by Hurricane Michael, it was remarkable that a regional, commuter campus was able to decrease the rate of DFW grades obtained, maintain the same percentage of returning and non-returning students, and only saw a loss of 75 less enrolled students. Although Student Credit Hours (SCH) decreased in spring 2019, this number began to increase by the following

fall 2019 semester. Not only did degree obtainment increase over the numbers from a comparable period of time before the storm, the second largest FTIC/freshmen cohort was admitted the following fall semester of 2019. Specifically, in 2019, 45 FTIC students were admitted (only 24 less admitted students less than the 69 admitted for the fall 2018 semester) and this 2019 cohort was a larger group than the fall 2017 semester (one year before the occurrence of the disaster).

Implications of these results and how they inform both the local and larger landscape will be discussed including how the campus could, as a result of these experiences, be better prepared for facing future challenges—a topic that would become most relevant just 17 months later with the worldwide pandemic of CoVID-19. Finally, I will present a dissemination plan to present the findings to interested stakeholders and discuss recommendations for expanding this study.

Implications

The results reveal several implications for academic initiatives post disaster and for staff responsible for students' success. By extension, any lessons learned in the post disaster context can also be generalized to less severe issues that impede educational progress for both traditional and nontraditional student populations. First, the descriptive analyses reveal several implications for student enrollment, course hour load, and academic outcomes such as the observation that, although the number of newly admitted students may initially decrease after a disaster strikes, an educational institution may be able to return to pre-disaster enrollment numbers after only one to two semesters post disaster. This is important to know for budget planning in terms of the financial cost of lower enrollment numbers.

For persistence measures, several findings both support and inform the research regarding the type of students more likely to not return after the occurrence of a disaster. The percentage of returning students not only recovered but also increased in comparison to pre disaster numbers just one semester after the disaster. Lower division undergraduate students accounted for a majority of the decrease reflected in the total credit hours. With research already identifying nontraditional students to be more at risk (Lee & Schneider, 2018), institutions may benefit from proactively intervening with lower division, nontraditional students when challenging issues arise. Further, this also speaks to resiliency overall in that the number of degrees awarded in the complete academic year after the one of the hurricane increased in comparison to the full

academic year prior to the hurricane. This may have been a delayed effect or may be attributed to the increased effort invested after the storm. In either scenario, further investigation will be required. On the individual level, some full time students opted to decrease to part time status instead of withdrawing completely while others withdrew, handled their responsibilities, and returned at a later time. Again, this may have revealed a potential stepping stone to further investigate how best to serve students experiencing a disaster, or even a personal difficulty, that may increase the overall likelihood of degree completion in the end.

With regard to racial and ethnic minority students, there was a 27% reduction in enrollment compared to a 11% reduction in white students. As previously stated, this reflects 39 less enrolled minority students and 42 less enrolled white students and although the difference is more evident when considering percentage to the overall number of enroll individuals, this is a difficult variable to investigate through group statistics. Upon a closer investigation, the decrease in enrolled racial/ethnic minority students includes 10 less African Americans and 14 less Hispanic or Latino individuals. However, this finer level of analysis failed to shed any additional insight into the reason for the decrease. Although previous research has documented that minority students may encounter more challenges, those studies have also examined other covariates that account for that difficulty. In the post-disaster context, it would be informative to evaluate whether race is truly the variable being captured in the measurement as the observed decrease in enrollment could be related to household income, family composition, or prior educational exposure (parents' educational background or highest degree achieved). Relatedly, one subgroup or another may contain more or less nontraditional students but even so, the number of dependents or an individual's employment status cannot be eliminated as a significant factor. Without further investigation, it was unknown if there is a common variable that contributed to a decrease in both nonwhite and white student enrollment numbers or if race alone is a factor. The answer to this is beyond the parameters of this study but is worthy of investigation and follow-up in future studies.

Several implications relate to interactions including the ability to conduct communications, the topography of communicating, the effort involved in communication, and the benefits of doing so. First, one implication relates to the importance of being able to communicate upon the occurrence of a disaster event or other environmental shock. In the case of FSUPC students and staff, the option to email text or call was severely limited. Although

institutions have used the internet and cell phones to continue remote classes through eLearning (Ayebi-Arthur, 2017a; Toya & Skidmore, 2018), universities must take stock of their ability to resume classes and services without the guarantee of these modern day comforts. Coveleski (2014) noted how universities often mistake having a plan with being prepared and the findings of this study support how difficult it is to fully prepare for all possible outcomes. It is imperative that universities not only develop a disaster plan but multifaceted plans that include several different contingency plans.

With communication and interactions being so central to the findings, academic advisors and student success staff cannot discount the connection they are able to establish with students and they must be ready to assume roles that more closely resemble counselors and coaches. This alone may be enough to mitigate the impacts of such a disruptive event. As discussed previously, McWilliams and Beam (2013) purported that modern advising more often than not resembles a blend of counseling, coaching, and mentoring. This holds true in the post disaster landscape where emotions run high and there is no shortage of issues to navigate. The findings support that academic advisors, faculty and other student success related staff would benefit from being made aware of this likely calling and institutions should prepare their employees by providing relevant trainings. This is consistent with the findings of Uhernik (1998) and later, Shepard, Kulig, and Boet (2017). In the wake of Hurricane Michael, the acts of being made aware of personal challenges, providing encouragement, dispersing valuable information, and simply listening to the individual stories of students blended the roles of the staff to resemble those of life coaches or counselors. As a result, these interactions fostered meaningful and caring relationships with the students. Such interactions are based in psychological trainings and have been found to help students with traumatic events (Firestein, 2019). These interactions have also been found to increase the likelihood for a student to persist in more typical academic settings (Varney, 2012; Young-Jones, Burt, Dixon, & Hawthorne, 2013) and these types of intimate interactions—akin to intrusive advising—may have contributed to student's academic resiliency in the post disaster context. Thus, universities should extend disaster plan trainings to all employees regardless of role.

University employees, particularly academic advisors, cannot discount the connection and rapport they can establish with students--especially in times of personal hardship or disaster recovery. However, the effort put into these types of interactions may exhaust or wear down

staff who are responsible for interacting with students. As participating staff eluded to a "fog of war" and a "fatigue" regarding the number of interactions and problem solving that was conducted, universities should be weary of disaster fatigue that may come about. With the added load of their own recovery—depending upon the specific situation—advisors and other employees may face a higher likelihood of disaster fatigue—similar to other types of fatigue noted in previous studies (Jacobson, 2006; Sasangohar, Jones, Masud, Vahidy, & Kash, 2020).

Many studies have demonstrated the critical role advisors and student success staff play in developing meaningful, caring, professional connections with students (Ohrablo, 2017; Sutton, 2016) and as indicated by the interviewees, in a post-disaster context, such connections were appreciated regardless of official role. This has implications for using all available university faculty and staff to interact with students who face a widescale difficulty (such as an environmental shock), can also speak to the benefits of decreasing the stress and workload on those individuals who fill the official advising positions, and ensures all students hear directly from a university contact. This may have contributed to the resiliency seen in the students enrolled during Hurricane Michael as they were contacted by a range of individuals—an interaction with much higher value than that of an email or social media post. Further, for the staff, there was likely a component of intrinsic reinforcement from the process of listening to students and assisting them in their recovery.

The findings also imply that it is important to develop relevant trainings to ensure that both students and employees know how information will be communicated upon the occurrence of a natural disaster. This information along with several back-up options should be circulated well before the occurrence of a disaster. The hotline that was established was a result of the disaster and it afforded students a single reference to contact when their individual circumstances allowed (availability of technology, electricity, or service). Requesting information about withdrawing from one or more classes was the overwhelming reason for contacting the hotline staff but students also contacted the hotline with miscellaneous questions, guidance on being displaced, and as an emotional outlet. However, many students after Hurricane Michael did not know about the hotline so therefore, it was not utilized to the utmost ability. The campus has continued this mechanism for any student in need as it has been expanded beyond just issues related to the storm. This could continue to be used in the future until it becomes a staple for students and staff which may negate one of the points made by several of the students

interviewees: it would have been more useful to have disseminated the hotline number and related information prior to the storm.

Further, students also mentioned a more localized text message alert option to share more information about post disaster topics and updates should be used more after the occurrence of the storm rather than only for upfront warnings regarding closures of the university and its facilities. Students commented that alert texts ceased after the university closed and they seemed to indicate it was the choice of the university to do so. If the function to send such messages had not been disrupted due to the widespread damage to the cellular network hubs and infrastructure, it is possible this channel may have been used more by the campus. Therefore, it is likely more accurate to attribute the decrease in text alerts to the destruction of the infrastructure. As Coveleski (2014) found, "Safety and feelings of security were associated with technology" (p. 93) by students in disasters and therefore, it is not surprising that students responded in this way by identifying technology as a solution. This implies that, if infrastructure is intact, technology may enhance direct contact between universities and their students.

Finally, both students and staff participants discussed stress, anxiety, and other emotional experiences that have been validated by previous research studies. Specifically, serious physical and psychological effects that have been experienced after the occurrence of a disaster include anxiety, depression, fear, and even suicidal ideation (Bland et al., 1996; Brown et al., 2018; Ingram et al., 2018; Kennedy et al., 2015; Trip et al., 2018). However, in this study, guilt was a reoccurring topic—specifically, feeling guilty over minimal loss and damage to their homes and possessions. Not as much attention has been focused on this disaster version of "survivors guilt" that was noted only by those participants who were able to recover quickly or experienced very little disruption. This is important for those responsible for students in a post disaster context as individuals tend to focus their efforts more on those who have incurred the most loss. For example, those students who may be made homeless post disaster versus a student who only experienced a short time without electricity. Universities may benefit their student bodies universally by considering that the simple experience of the event—regardless of loss—can foster a spectrum of emotions including guilt. Universities may need to explore how to assist individuals beyond those who have been impacted in observable or tangible ways.

In summary, although technology and infrastructure were important and were evaluated as an important piece of this study, the overall implication is there was a much more important

factor to consider: the employees and staff. When considering the interactions of staff, their coalescent value was much more than that of information technologies and communication infrastructure. The most important tool that we have against the fallout from disasters and the challenges they present for universities may be the university staff. The most valuable part of disaster mitigation rests with the individuals who work to re-establish normalcy and a sense of community. Only after an approximation of such is attained can students then begin to rebuild the foundation for which they can continue their academic journey.

Recommendations

The following recommendations are provided for both the local context and the larger educational landscape. Some discussion follows the recommendations including options for addressing the patterns observed post Hurricane Michael and the information obtained from the interviews. As the data were collected during the height of the CoVID-19 pandemic, recommendations also factor in the subsequent struggles brought on by the coronavirus. Finally, how future studies can enhance this dissertation in practice and suggestions for expanding the research on this topic are also discussed.

Local Context Recommendations

The experience of a major natural disaster may have benefited both students and the campus in that it allowed for some protection against future challenges and environmental shocks. This is in line with previous studies that found students who best prepare for disasters are those who have already experienced a previous disaster (Tkachuck, Schulenberg & Lair, 2018). Having experienced the post disaster fallout of a major category 5 hurricane, the campus was likely better equipped at preparing in advance for challenging events and responding to the acute transition to remote classes brought on by COVID-19. However, in the case of Hurricane Michael and the instability of technology and communication abilities, a disaster plan that prescribes a range of actions and response modalities (both incorporating and discounting technology) should be continuously cultivated for the campus' use.

The campus should also continue the FSUPC Promise Hotline as this is a single point of contact that can be transferred off site. Students can access information and a campus employee when they are technologically able to do so and, in the event of a future situation requiring

evacuation, students have a central point to contact from their evacuation location. Training that corresponds to this information should be conducted for all relevant campus employees regardless of their proximity to students and student success services. This type of outlet (reaching a real person by calling a well-known number) affords an emotional connection for students and allows students to actively participate in their own intrusive intervention. As this also allows for the reciprocal sharing of information and personal stories, it formulates a bond very similar to "buy in." The campus should continue and promote the hotline in order to assist in maintaining the same intrusive manner used prior to the disaster and throughout the recovery period.

Given the importance assigned to the housing crisis by multiple participants as well as the lack of internet, one of the most important recommendations that would seem to be more unlikely is to create residential student housing options. As the construction of student apartments on campus had already commenced at the time of the interviews, the campus' initiative to open student residential housing in the fall of 2021 is well timed. Notwithstanding significant damage, the availability of on campus housing could have alleviated the housing issues noted by students and, with the internet provided on campus via a generator, the limited connectivity for those living in the area would have also been mitigated. Although these recommendations are specific to FSUPC, they can also be used to generate viable options for other universities and settings.

Larger Educational Landscape Recommendations

Students want information after the occurrence of a disaster, but they may not know exactly <u>what</u> they need to know. This underscores how important it is for universities to be able to disperse information before any type of disaster or environmental shock occurs. Setting expectations for what could likely happen may be the only way to mitigate the inability to plan for a disaster. Moving forward, educational institutions should develop and maintain relevant plans that both incorporate and discount the use of communication technologies as well as plans for operating on site and from a pre-designated remote location. Due to the unpredictable nature of disasters, universities should fully inform their faculty, staff, and students about all possibly contingencies that may be put in place to meet the challenges brought on by disasters. Options for how to navigate an environmental shock can be generated by studying other institutions'

efforts and what was deemed successful. Disseminating what tactics were beneficial, produced results, or failed to mitigate the impact of a disaster is important for advancing our understanding of recovery and resilience. Although FSUPC had a plan for the occurrence of a hurricane and the inability to communicate during the worst condition, the plan did not factor in the complete destruction of the cellular and internet infrastructures—a lesson for the educational landscape to learn from studying. All situations (and types of environmental shocks) should be factored into a university's potential plans. As turnover occurs, time passes, and complacency sets in, these plans may be forgotten or placed at a lower priority. Universities should regularly review their plans (more often than yearly) in order to keep a plan fresh and ready to implement. Educational institutions would benefit from studying the actions of those who have experienced disasters and what challenges the post-disaster setting presented.

Universities should also plan for physical attendance in classes but allow for a remote access option contingent upon natural disasters and similar shocks. This type of flexible approach should be evaluated by different types of universities but is omitted from the recommendations for the local context as the regional, commuter campus essentially tested such a delivery format after the hurricane and refined it to meet the challenges brought on by the coronavirus pandemic. While some students appeared to appreciate the campus reopening and the commencement of classes, it also mandated in-person attendance due to the lack of internet and communication capabilities and other students felt a remote option should have been made available. Although after Hurricane Michael, the campus did not have the physical means to offer a blended format option, staff participants indicated this to be the best for individual student situations. Meeting the needs of students, local and far, FSUPC developed such a solution when facing continued closure due to COVID-19. Known as the "HyFlex delivery format," this modality was heavily influenced by lessons learned during the disaster and ensuing recovery period. The smaller regional, commuter campus was tapped by the primary campus for implementation advice to replicate the HyFlex paradigm. As a campus that had already experienced a similar disruption, FSUPC was able to support the primary campus in training their own faculty and staff to better meet the needs of the students when the pandemic continued to be an issue. Were it not for the beneficial (as odd as that sounds) experience of a major category 5 hurricane and the destruction it wrought, the commuter campus might not have been as prepared to meet the needs of their students at the start of the coronavirus pandemic. The

world of academia must embrace flexibility and incorporate it into disaster planning. Learning from other institutional responses to disasters can foster an increased potential of adaptability to the various and unknown challenges that accompany these types of events.

To reduce misunderstandings or disconnections between faculty and staff and students who have suffered either a natural disaster, a pandemic, or any environmental shock such as personal tragedy or school shooting, universities should continuously evaluate how they can effectively communicate the delicate nature of each situation on the individual student level. This is important for the development of effective systems that accurately depict the student's situation to the faculty member. For example, similar to early warning systems so frequently used with advising and student success departments, a temporary crisis "flag" could be sent out to faculty for any of their enrolled students letting them know in advance that extraordinary conditions are in play. This process is similar to the procedures a student initiates when additional accommodations are needed in class with the exception, instead of the student, the student success department or advisor who is knowledgeable of the situation would initiate the action. Acting on this recommendation may eliminate any feelings of disconnection between students and classroom faculty—especially when classes are unexpectedly transitioned to remote delivery formats or assigned to faculty in a different location.

Finally, it is important for university employees to understand the value in making connections to students, especially in difficult times and how this may enhance their persistence. All university employees should be trained in how to interact with students in crisis and be familiar with not only intrusive advising methodologies, but basic counseling and coaching techniques in order to better navigate the conversations that result from a devastating event such as a major category 5 hurricane—or the long-term conditions in play during the COVID-19 pandemic. Decades ago, Glennen (1975) asserted that advisors must develop relationships with students in which they can "disseminate information, listen to problems, or give advice" (p. 2). It is unlikely to find a statement more indicative of the individuals who counseled, advised, coached, and listened to the students of FSUPC in the wake of Hurricane Michael.

Future Studies

Other types of disasters and challenging contexts with a varying degree of severity should be explored in order to evaluate how such situations can further shape the interactions between

student success employees and nontraditional students. Future studies should also focus on more comprehensive analyses of data in terms of statistical analysis and consider how significant the technology and communication components are during these types of events in comparison to face-to-face interactions. In terms of technology, although some investigations has been completed regarding social media (Murthy & Grossb, 2017), evaluating the interactions that occur through these modalities could enrich the research base. Relatedly, universities may be able to tailor their plans in a more efficient manner by assessing student preference for various methods and timings of communication. It would also enrich this area of research to further investigate student to student interactions and connections made in both a post-disaster context and in the midst of smaller, more localized events or situations.

One important future investigation would be to examine the background of racial and ethnic minority students who decrease their enrollment or withdraw after the occurrence of a disaster. This may shed light on variables in play other than race. Relatedly, exploring this through a qualitative study may provide a wealth of valuable information that could not be captured in the present study. This could also highlight how different groups of students respond to disasters and challenging events. Understanding how difficult groups of students react to disasters and differences in their recovery could better inform mitigation planning and post-disaster efforts. Finally, investigating successive environmental shocks—such as the case of Hurricane Michael and the Covid-19 pandemic less than two years later—offers a rare opportunity to explore how individuals navigate these challenges and the interactions involved. Future studies should strive to document the efforts of academic advisors and other student success staff and derive any evolutionary nature experienced by a field dedicated to student success.

COVID-19

As mentioned above, less than two years after the destruction wrought by Hurricane Michael, the campus unfortunately faced a different type of environmental shock—one that was also felt around the world and throughout the entire academic community. COVID-19 evolved from a whisper about the happenings in a foreign country to the roar of a nation in crisis. Educators from higher education to early learning settings saw their day-to-day goals and struggles multiply amidst the disruption from the coronavirus. With a second major

environmental shock in just 17 months, FSUPC faced the greatest test of resilience. The post disaster context coupled with the ongoing pandemic provided a unique context to study how both students and staff interact and experience these events. Although it was not my initial intention to factor in another widespread condition, the data for the second research questions—the information obtained in the interviews—were collected during the height of the pandemic. It would be a limitation to ignore COVID-19 as it factored into the interviewee's commentary such as when asked about the campus' ability to be prepared for future challenges.

Overall, the lessons learned by FSUPC after the hurricane helped increase their adaptability to challenges afforded by the coronavirus. As the Dean of FSUPC remarked when addressing his department heads and staff about the task of moving from face-to-face classes to a remote form of delivery: "We've done this before except this time, we have the internet, electricity, and the daily comforts of life. We've got this" (R. Hanna, personal communication, March 12, 2020). Not only did this dissertation provide the opportunity to study how a major natural disaster was experienced by a small regional commuter campus, it also afforded me a preview of how lessons learned from that first crisis helped FSUPC navigate the COVID-19 pandemic. Sharing this information and the stories of those who experienced the disaster firsthand—as they continued to navigate a worldwide pandemic—is valuable for other institutions and entities across the larger educational landscape as it speaks to the resiliency of a small, rural, commuter campus that continues to persist.

Conclusion

With disasters increasing yearly, this dissertation in practice addressed a challenge that many more educational institutions may face—especially in light of the COVID-19 pandemic. This study explored the interactions between university student success staff and students during a potentially education ending event. Understanding persistence in such situations and how helping students achieve success without expensive software and technology may unlock other basic processes that play overlooked, yet critical roles. It also enriched the human interaction factor in that both student and staff who were interviewed indicated strong connections with each other. Given the variety of hardships that nontraditional students already bring with them into the educational context, studying how a largely nontraditional student population persevered in the face of a natural disaster adds value to the critical roles that academic advisors and student

success staff fill for these individuals. It is a valuable lesson that the world of academia may need to rely upon as the COVID-19 pandemic continues to factor into the daily delivery of education in our nation.

Dissemination Plan

Without proper dissemination, the findings, implications, and benefits of the findings of this dissertation in practice would do little to further the topics of higher education and the environmental shocks that threaten the success of students. Therefore, a dissemination plan is presented below to outline the initial steps taken to share the findings and implications with the local stakeholders as well as a list of the key stakeholders who were identified. Finally, further dissemination efforts will also be discussed.

Stakeholders

There were multiple stakeholders invested in the completion of the study. Primary stakeholders included two Academic Advisors, one Academic Program Specialist who advised and oversaw the advisors, and the Director of Student Success & Registrar Services. The Director of Student Success worked closely with the Director of Enrollment Management to track enrollments, application activity, and ensure students have the necessary supports in place to increase their likelihood of degree completion. Both of these individuals—the Director of Student Success & Registrar Services and the Director of Enrollment Management—were members of the Dean's Staff Committee which consisted of other various department heads, faculty, and department representatives who focused on the campus' strategic plan and goals. The FSU Panama City Dean was also a major stakeholder. Finally, enrolled students—particularly those involved in the study—were considered to be secondary stakeholders as well as other faculty and staff that did not serve directly on the Dean's Staff Committee. The overall exploratory model of this Dissertation in Practice was consistent with the needs of the key decision makers, students, and student success staff and was strongly supported by the administration and key stakeholders. This study offered the potential to shed light on the resiliency of not only individual students but the collaborative efforts of many of the listed stakeholders. Findings potentially informed future policy on student interactions, disaster

response, barriers to success and revealed ways in which could best support their student population.

Dissemination to Stakeholders

Due to the sequential nature of the DiP, communication with stakeholders occurred in two phases. First, verbal updates on progress were communicated at biweekly meetings of the Dean's Staff Committee. This type of communication schedule supported transparency and consisted of progress updates on the completion of the study. Second, upon compilation of the findings of the study, an executive summary was created to review the study. This product was used as a guide and reference for informing the primary stakeholders in an open meeting format in which a PowerPoint presentation was used to showcase data tables, graphs and the primary findings of the study. All attendees of the primary stakeholder meeting were provided a copy of the executive summary in order to increase the likelihood that findings were not construed or misinterpreted. Secondary stakeholders were invited to a scheduled forum in which the PowerPoint was used to present the findings and generate discussion. Follow-up meetings were offered as needed or upon request of the primary stakeholders.

Presentation of the findings could inform a number of conference attendees across different disciplines. For example, I presented the proposal of this study at the National Autism Conference in Pennsylvania since the FSUPC campus also contains an autism clinic. Although this may appear to be minor, doing so contributed to the overall consideration of how disasters can interrupt a variety of settings and processes—especially given that a assortment of different practitioners that work in academic settings attend conferences. Taking the information they are made aware of back to their individual entities and universities helps to further their understanding and presenting the findings at future conference enhances the reach of my dissemination efforts.

Further Dissemination

Further dissemination would consist of publication of the study and a formal extension in which additional factors or environmental shocks could be studied. Given the unexpected occurrence of a second environmental shock—in the form of CoVID-19—it would be beneficial to review the performance of the campus, the outcomes and patterns of the student population as

the pandemic played out. Evaluating how the campus fared through the second challenging event in less than a two year period could further inform the areas of mitigation, advising and student relationship building, resilience, and disaster, or crisis, planning. Regardless of whether the original study is replicated or extended to similar situation or campuses, conference presentations to convey the findings of this dissertation in practice are another option for dissemination that will be pursued. There is worth and value in sharing the story of how a regional commuter campus successfully navigated a major natural disaster. With COVID-19 entrenched in our day-today lives, spawning feelings of isolation, and contraindicating the human connection, it was uplifting to hear the individual stories of students and staff who persevered through not one, but two devastating ordeals. As time invariably marches on, environmental shocks may not get easier but understanding the valuable lessons learned by the individuals who experienced these events means that each subsequent student, educator, and institution can meet these challenges with increased determination, adaptability, and resiliency.

APPENDIX A

RETURNING STUDENT INTERVIEW PROTOCOL

Interview No/ Category.:_____Date:_____Start Time:_____End Time:_____

Instructions: After completing the information above, read the italicized statement below and then make notes on any probes (listed on the following page) that are used.

This interview will be recorded in order for your story to be fully captured. Notes will be taken and additional questions may be posed in order discuss all aspects of your experiences. Upon completion of my review and analysis, you will be able to review all related information.

Returning Student Interview Protocol

Interview Questions for Returning Students Experiencing the Hurricane

No.	Content
1	Tell me your current status (are you still a student, are you employed?).
2	What was your living situation before the storm?
3	Were there dependents or others living with you prior to the storm?
4	What responsibilities (on campus, at home, outside employment) did you possess before the storm?
5	Describe how you felt emotionally leading up to the hurricane.
6	What happened academically (how were you doing in your classes)?
7	How did you respond to the storm (sheltered in place, evacuated)?
8	What were you worried about most during the storm?
9	What was the biggest challenge for you immediately after Hurricane Michael?
10	How did you manage/address this challenge?
11	Were there any challenges that developed later?
12	Describe your interactions and experiences with employees or other students of FSUPC after the storm.
13	Where and how did you get your school information after the storm?
14	What kind of support, if any, was provided by the university?
15	How did that support help you?
16	What else do you think the university could have done to help you?
17	If a similar event happened again, what would you want to occur or what would you want to change or have FSUPC do differently?
18	What do you think should be the responsibility of FSUPC upon the occurrence of a natural disaster (regarding their students)?

19 How much of a role did FSUPC play in your disaster recovery?

20 Do you think the university will do a better job now if they encounter the same kind of natural disaster?

21 What does it mean to pursue an education during a disaster?

22 How much interaction did you have with advising staff, advising faculty, or any FSUPC staff before and after the storm?

23 What do you want an advisor or other related staff to know about students in a disaster?

24 How many times have you visited the Student Success Building (both before and after the storm)?

25 Where do you get most of your information about courses, options, your career path?

26 What is your perception of FSUPC staff/students now compared to before the storm?

27 Why did you decide to return to continue your academic pursuits?

28 Did anything change for you academically after the storm?

29 Is there anything else you would like to share about the experience?

Commonly Used Probes- Adapted

Probes adapted and expanded from Johnson & Christensen (2017)

Standard Interviewer's Vocal Probe	Written Abbreviation
Repeat the Question	RQ
Anything else?	Else?
Any other reason?	AOR?
Any others?	Oth?
How do you know?	HKn?
What would you do?	Do?
Did that work?	DTW?
How do you mean?	How mean?
Could you tell me more?	More?
What do you have in mind?	In mind?
In what way?	IWW?
Why?	Y?
Why do you feel that way?	Y feel?
Which?	Wch?
And so?	Aso?
Where?	Whr?

Appendix A: Returning Student Interview Protocol continued

Context specific Probes

Additional specific probes

Probe	Written Abbreviation
Expectant pause /head nod (motor)	ExpP
So how would you summarize that? (vocal)	Sum?
I'm not sure what you mean—with a confused look (vocal and motor)	Look?
Who?	Who?
Can you expand/elaborate on that? (vocal)	Elab?

Notes or novel probes used: _____

_____

_____

Returning Student Interview Protocol

Additional Questions that Arose During Returning Student Interviews

No.	Question
1	_____
2	_____
3	_____
4	_____
5	_____

Notes

APPENDIX B

NON-RETURNING STUDENT INTERVIEW PROTOCOL

Interview No/ Category.:_____Date:_____Start Time:_____End Time:_____

Instructions: After completing the information above, read the italicized statement below and then make notes on any probes (listed on the following page) that are used.

This interview will be recorded in order for your story to be fully captured. Notes will be taken and additional questions may be posed in order discuss all aspects of your experiences. Upon completion of my review and analysis, you will be able to review all related information.

Former Student Interview Protocol

Interview Questions for Non-Returning Students Experiencing the Hurricane

No.	Content
1	Tell me your about your current status.
2	What was your living situation before the storm?
3	Were there dependents or others living with you prior to the storm?
4	What responsibilities (on campus, at home, outside employment) did you possess before the storm?
5	Describe how you felt emotionally leading up to the hurricane.
6	What happened academically (how were you doing in your classes)?
7	How did you respond to the storm (sheltered in place, evacuated)?
8	What were you worried about most during the storm?
9	What was the biggest challenge for you immediately after Hurricane Michael?
10	How did you manage/address this challenge?
11	Were there any challenges that developed later?
12	When did you decide you were not returning to FSUPC?
13	What factors played into your decision to not return?
14	Describe your interactions and experiences with employees or other students of FSUPC after the storm.
15	Where and how did you get your school information after the storm?
16	What kind of support, if any, was provided by the university?
17	How did that support help you?
18	What else do you think the university could have done to help you?
19	If a similar event happened again, what would you want to occur or what would you change/do differently?

20 What do you think should be the responsibility of FSUPC upon the occurrence of a natural disaster (regarding their students)?
21 How much of a role did FSUPC play in your disaster recovery?
22 Do you think the university will do a better job now if they encounter the same kind of natural disaster?
23 What would needed to have been in place to prevent you from leaving FSUPC?
24 What does it mean to pursue an education during a disaster?
25 How much interaction did you have with advising staff, admissions, the registrar, advising faculty before and after the storm?
26 What do you want an advisor or other related staff to know about students in a disaster?
27 How many times did you visit the Student Success Building (both before and after the storm)?
28 Where do you get most of your information about courses, options, your career path?
29 What is your perception of FSUPC staff/students now compared to before the storm?
30 When you made the decision to not return, describe how you went about it (who you contacted).
31 What would need to happen in order for you to return to complete your degree?
32 Is there anything else you would like to share about the experience?

Commonly Used Probes- Adapted

Probes adapted and expanded from Johnson & Christensen (2017)

Standard Interviewer's Vocal Probe	Written Abbreviation
Repeat the Question	RQ
Anything else?	Else?
Any other reason?	AOR?
Any others?	Oth?
How do you know?	HKn?
What would you do?	Do?
Did that work?	DTW?
How do you mean?	How mean?
Could you tell me more?	More?
What do you have in mind?	In mind?
In what way?	IWW?
Why?	Y?
Why do you feel that way?	Y feel?
Which?	Wch?
And so?	Aso?
Where?	Whr?

Appendix B: Non-Returning Student Interview Protocol continued

Context specific Probes

Additional specific probes

Probe	Written Abbreviation
Expectant pause /head nod (motor)	ExpP
So how would you summarize that? (vocal)	Sum?
I'm not sure what you mean—with a confused look (vocal and motor)	Look?
Who?	Who?
Can you expand/elaborate on that? (vocal)	Elab?

Notes or novel probes used: _____

_____

_____

Non-Returning Student Interview Protocol

Additional Questions that Arose During Non-Returning Student Interviews

No.	Question
1	_____
2	_____
3	_____
4	_____
5	_____

Notes

APPENDIX C

STAFF INTERVIEW PROTOCOL

Interview No.:_____ Date:_____Start Time:_____End Time:_____

Instructions: After completing the information above, read the italicized statement below and then make notes on any probes (listed on the following page) that are used.

This interview will be recorded in order for your story to be fully captured. Notes will be taken and additional questions may be posed in order discuss all aspects of your experiences. Upon completion of my review and analysis, you will be able to review all related information.

Faculty and/or Staff Interview Protocol

Current / Former Employee Interview Questions

No.	Content
1	What was your role before the storm at FSUPC?
2	Has your role changed?
3	What is your role now?
4	Tell me about your role on campus the week of the storm.
5	What do you think was the biggest challenge for students immediately after Hurricane Michael?
6	Were there any delayed challenges for students or anything that surprised you after the storm?
7	Describe your interactions and experience with students of FSUPC after the storm.
8	Where and how did you get your information after the storm?
9	If a similar event happened again, what would you want to occur or what would you change/do differently?
10	What do you think should be the responsibility of FSUPC for students upon the occurrence of a natural disaster?
11	Do you believe you played a role in any students' disaster recovery?
12	What did that role look like?
13	What is your relationship with students after the storm compared to those same students before the storm?
14	What do you think it means to pursue an education during a disaster?

Appendix C: Staff Interview Protocol continued

Faculty and/or Staff Interview Protocol

Former Employee Interview Questions

No.	Content
15	Why did you leave FSUPC?
16	Did you leave due to anything related to the Hurricane?
17	Had the Hurricane not occurred, would you still be at FSUPC?
18	Is there anything else important for me to know regarding the hurricane?

Commonly Used Probes- Adapted

Probes adapted and expanded from Johnson & Christensen (2017)

Standard Interviewer's Vocal Probe	Written Abbreviation
Repeat the Question	RQ
Anything else?	Else?
Any other reason?	AOR?
Any others?	Oth?
How do you know?	HKn?
What would you do?	Do?
Did that work?	DTW?
How do you mean?	How mean?
Could you tell me more?	More?
What do you have in mind?	In mind?
In what way?	IWW?
Why?	Y?
Why do you feel that way?	Y feel?
Which?	Wch?
And so?	Aso?
Where?	Whr?

Appendix C: Staff Interview Protocol continued

Context specific Probes

Additional specific probes

Probe	Written Abbreviation
Expectant pause /head nod (motor)	ExpP
So how would you summarize that? (vocal)	Sum?
I'm not sure what you mean—with a confused look (vocal and motor)	Look?
Who?	Who?
Can you expand/elaborate on that? (vocal)	Elab?

Notes or novel probes used: _____

_____

_____

Staff Interview Protocol

Additional Questions that Arose During Non-Returning Student Interviews

No.	Question
1	_____
2	_____
3	_____
4	_____
5	_____

Notes

APPENDIX D

ENROLLED STUDENTS BY RACIAL/ETHNIC MINORITY

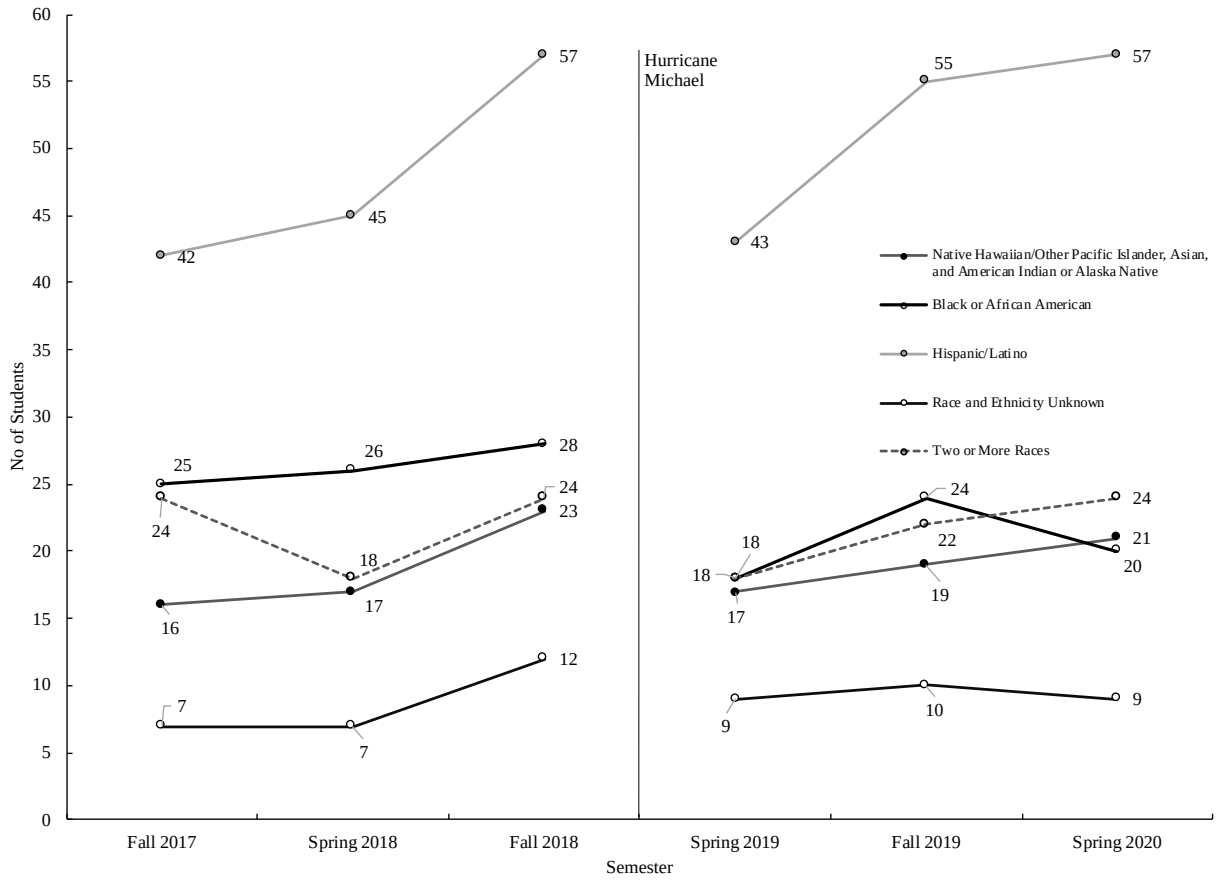

Figure 9. Enrolled Students by Racial/Ethnic Minority: This line graph reflects the number of enrolled students classified by racial or ethnic minority students each fall and spring semester between the 2017-18 and 2019-20 academic years.

APPENDIX E

TOTAL WITHDRAWALS BY SEMESTER

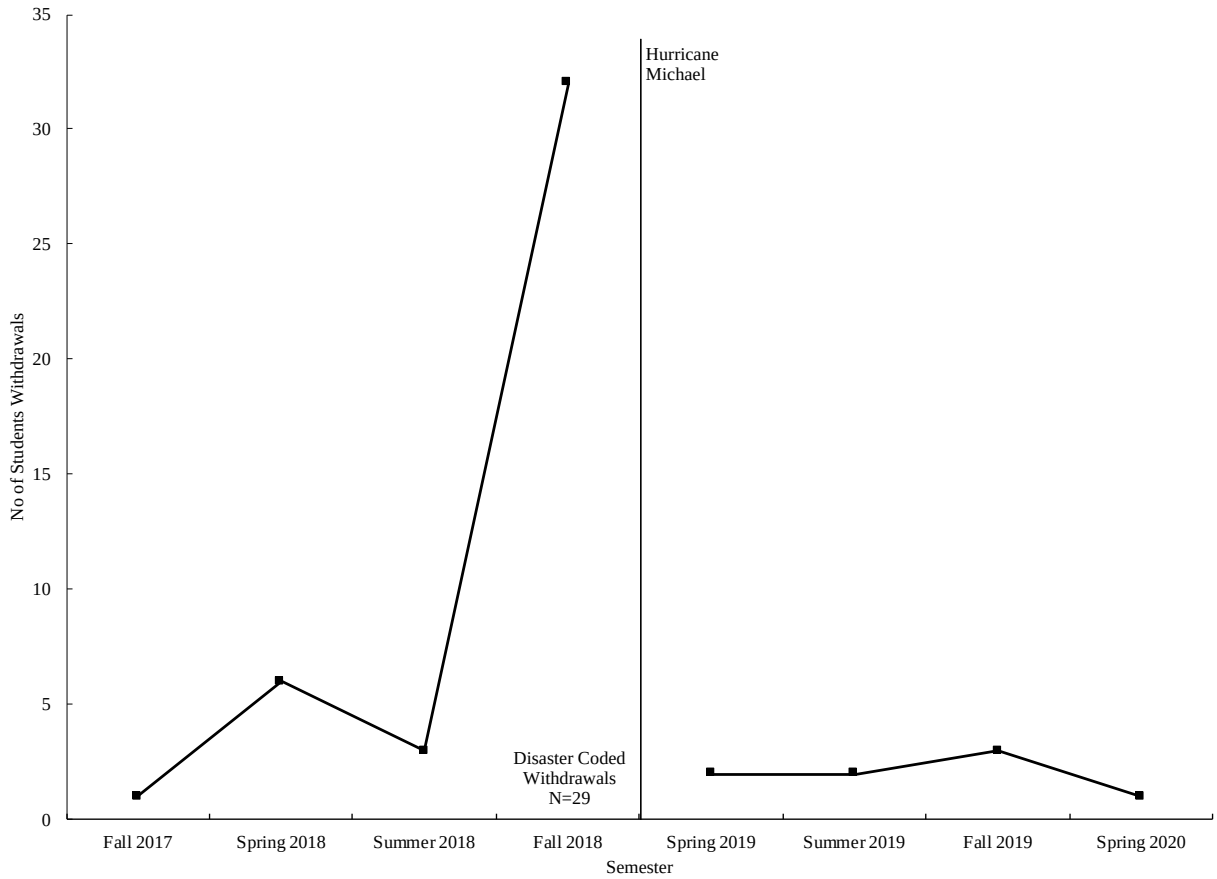

Figure 10. Total Withdrawals by Semester: This line graph reflects the number of total withdrawals across all withdrawal reasons each fall, spring, and summer semester between Fall 2017 and Spring 2020 time period with 29 of the 32 withdrawals that occurred in fall of 2018 being attributed to the disaster.

APPENDIX F

INSTITUTIONAL REVIEW BOARD EXEMPTION

FLORIDA STATE UNIVERSITY
OFFICE *of the* VICE PRESIDENT *for* RESEARCH

EXEMPTION DETERMINATION

May 22, 2020

Emily Dickens, [redacted]

Dear Emily Dickens:

On 5/22/2020, the IRB staff reviewed the following submission:

Type of Review:	Exempt (2)(i) Tests, surveys, interviews, or observation (non-identifiable); (4) Secondary research on data or specimens (no consent required)
Title:	Lessons Learned: Intrusive Student Success Initiatives at a Regional University Campus in the Wake of a Natural Disaster
Investigator:	Emily Dickens
Submission ID:	STUDY00001349
Study ID:	STUDY00001349
Funding:	None
Grant ID:	None
IND, IDE, or HDE:	None
Documents Reviewed:	• Attachment 1- Variables to be Measured.pdf, Category: Other; • Attachment 5- A Priori coding -Lessons Learned.pdf, Category: Other; • Attachment 6 - Dickens Data Permission for IRB.pdf, Category: Other; • Attachment 2 - Returning Student Interview Protocol- Lessons Learned.pdf, Category: Recruitment Materials; • Attachment 3 - NonReturning Student Interview Protocol- Lessons Learned.pdf, Category: Recruitment Materials; • Attachment 4 - Staff Interview Protocol- Lessons Learned.pdf, Category: Recruitment Materials; • Final Dickens Information Sheet for IRB 4.0 052220.pdf, Category: Recruitment Materials; • Revised Dickens Emily Protocol for Social Behavioral Research -Lessons Learned, Category: IRB Protocol;

The IRB staff determined the protocol qualifies for exemption, effective on 5/22/2020.

Page 1 of 3

You are advised that any modification(s) to the protocol for this project that may alter this exemption determination must be reviewed and approved prior to implementation of the proposed modification(s).

Modifications to the research may invalidate the exemption determination (because the research no longer meets the exemption criteria described in HRP-312 – WORKSHEET – Exemption Determination).

Examples of minor changes to exempt research that would *not* alter the exemption determination and should therefore not be submitted to the IRB for further review include the following:

- Making administrative (formatting, grammar, spelling) revisions to the protocol, consent or recruitment materials or other study documents
- Adding or revising non-sensitive questions or non-identifiable response options to a survey, interview, focus group or other data collection instrument
- Increasing or decreasing the number of study subjects—*unless* adding a new study sample such as children or prisoners or adding a new source of data or records
- Making study team/personnel changes—*except* a change in Principal Investigator (PI)

Examples of changes to exempt research that ***do require*** prospectively submitting a modification to the IRB before implementing changes include the following:

- Making substantive revisions or additions (e.g., change in PI; funding source; sample; source of study subjects or their data; study sites or settings; procedures, interventions or interactions with study subjects; use of any drug, device, supplement or biologic; study subjects' time or duration spent performing or participating in study activities) to the protocol, consent or recruitment materials or other study documents
- Adding or revising sensitive questions or identifiable response options to a survey, interview, focus group or other data collection instrument
- Adding a new study sample such as children or prisoners or adding a new source of data or records
- Obtaining, using, studying, analyzing, generating, storing or maintaining identifiable information or identifiable biospecimens in addition to or in lieu of de-identified or anonymous information or specimens
- Change in study risks (e.g., impact upon study subjects; impact upon students' opportunity to learn educational content or assessment of educators who provide instruction; any disclosure of study subjects' responses outside of the research may place study subjects at risk of criminal or civil liability or be damaging to subjects' financial standing, employability, educational advancement or reputation)
- Change in Principal Investigator (PI) or (for students) faculty advisor
- New or change in financial interest

In conducting this protocol, you are required to follow the applicable requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the Library within the RAMP IRB system.

Sincerely,

Office for Human Subjects Protection (OHSP)
Florida State University Office of Research
2010 Levy Avenue, Building B Suite 276

Tallahassee, FL 32306-2742
Phone: 850-644-7900
OHSP Group Email: humansubjects@fsu.edu
OHSP Web: https://www.research.fsu.edu/hs

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BIOGRAPHICAL SKETCH

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