When Two Become One: A Case Study of the Relationship between College Consolidation and Enrollment, Retention and Graduation

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ABSTRACT

Higher education institutions across the United States have increasingly faced an uncertain future as student populations shift, financial pressures mount, and skepticism rises regarding the value of higher education (Seltzer, 2018). As a result, university leaders find themselves endeavoring upon a blind venture of adapting the various corporate consolidation methods to the unique complexities of higher education (Hawks, 2015). While complicated, consolidations serve as a method of adjusting to internal needs and external influences on the organization, which may cause a significant increase in the number of institutions turning to these practices. Despite the complexities and increased instances of such amalgamations by these institutions, there is a significant lack of up-to-date research, analysis, and data concerning the direct effect of consolidation on some institutional processes.

During this study, the researcher collected data from the Integrated Postsecondary Education Data System government database for 45 consolidated (90 pre-consolidated) institutions across the United States. The goal of the study was to evaluate if a relationship exists between consolidation and the number of full-time students enrolled in the fall, the percentage of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition through the Open Systems Theory lens. By assessing pre and post-consolidation data, the researcher comprehensively identified the differences and the similarities between the specific inputs, outputs, outcomes, and environmental pressures of mergers. The study concluded that consolidation might not be a practical solution to alleviate issues or achieve enrollment, retention, graduation, and tuition goals.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

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DEDICATION

First and foremost, I wish to give honor and thanks to God, who has lighted my path and provided me with the strength I needed to persevere.

To my chief motivators, most prominent cheerleaders, and support system, my parents: Patience Arline-Hicks and Beauford Alton Hicks. As educators yourselves, you have always supported my educational and professional pursuits. Thank you for raising me to recognize and value the importance of education, always serving as models of scholarship, dedication, self-sacrifice, and compassion.

I love both of you very much. I am blessed and grateful to have you in my life.

CHAPTER I

INTRODUCTION

Traditionally, consolidations, acquisitions, and mergers are not typical methods that leaders in higher education institutions employ to address and rectify enrollment, financial, or economic-based hurdles. However, this trend has changed dramatically in recent years, as educational institutions and university systems have increasingly considered atypical solutions for the many challenges and pressures they face in a progressively dynamic educational and political climate. Due to pressures, such as increasing competition among institutions, higher institutional operation costs, the entry of more online education opportunities in the market, and reduced state support, many experienced institutional and university system leaders must make complex financial, structural, and geographic-based decisions that previously were not strong concerns.

Examples of the external pressures leading to reorganization include the 1974 University of Wisconsin consolidation with the Wisconsin State Universities system to avoid program duplication and contain growing costs (Russell, 2018). The Wisconsin change was similar to those previously made by the state system of Minnesota when restructuring the public system of state colleges, community colleges, and technical colleges in 1995 to improve efficiency (Healy, 1996; Shecter, 1996). More recently, in Georgia, between 2003 and 2013, Russell (2018) noted that financial pressures resulted in state appropriations declining dramatically, with public research institutions receiving 28% less funding per student in 2013 than in 2003 and public community colleges receiving 9% less. As of the 2016 fiscal year, state appropriations in all but five states were still below pre-recession levels. (p. 2)

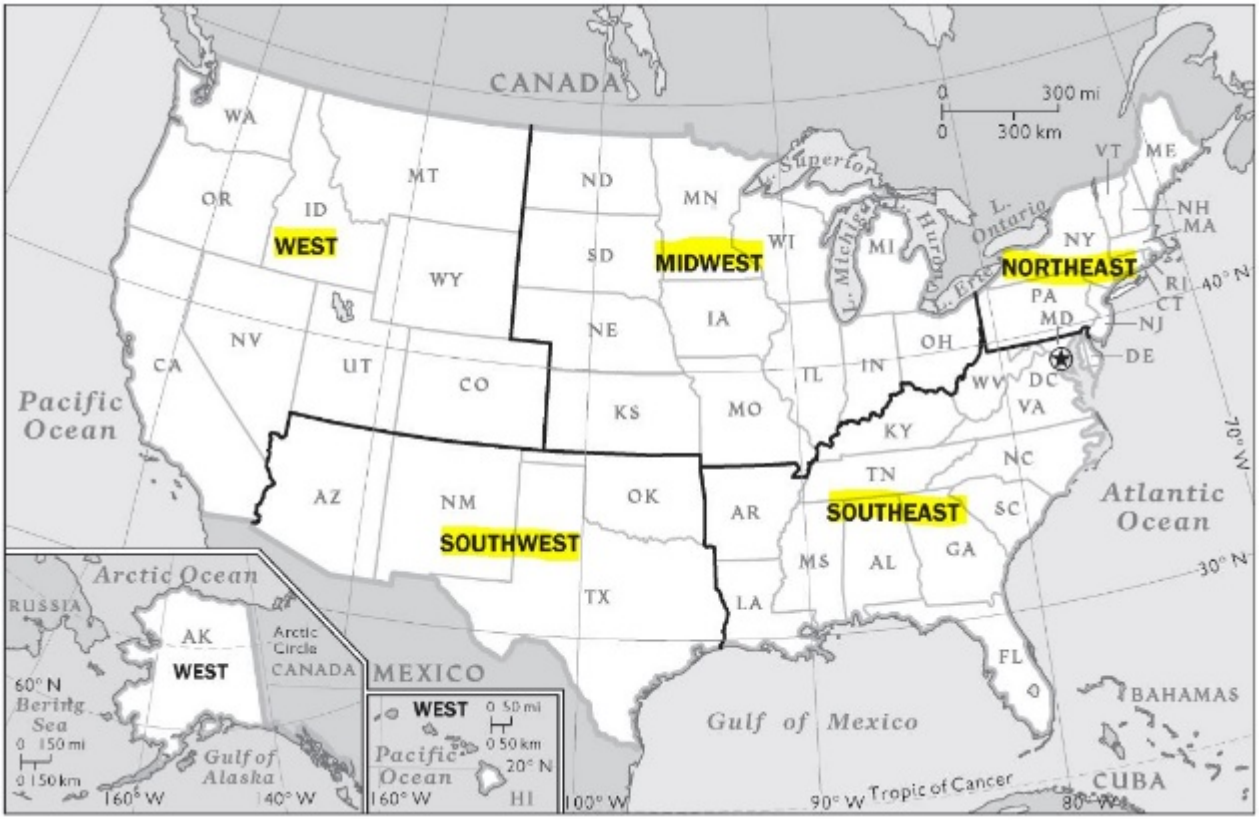
Compounding the continued decrease in state appropriation levels, spending within all higher education markets has also increased. Desrochers and Hurlburt (2016) reported in *Trends in College Spending: 2003–2013*, public research universities increased their spending by 11.9%, while public community colleges increased spending by 4.3%. Russell (2018) stated, "Consequently, net tuition revenue has constituted an increased share of spending, and state policymakers have identified consolidations as one way to improve efficiency" (p. 2). In 2017, due to a downward trend in statewide financial conditions, the Interim President of the Connecticut State Colleges and Universities System made a public announcement that the state planned to consolidate the 12 community colleges within the state into a single community college (Megan, 2017; Savidge, 2017).

Due to the potential for consolidations, mergers, and acquisitions among higher education institutions and the lack of comprehensive and cohesive research and data regarding the effects on specific aspects of institutional operation, the production of research regarding revenue-generating practices and academic outcomes is vital as shifts in these practices may directly affect institutional livelihood. Additionally, understanding the relationship between consolidation and revenue-generating practices becomes more critical when considering outcomes such as the restructuring of admission criteria, academic offerings, geographic location, and departments that directly affect the composition of the enrolling student population. These factors inspired the researcher to dedicate this study to examine whether a relationship exists between institutional consolidation, academic outcomes, and a select few revenue-generating practices. The researcher defined the revenue-generating practices for this study as the number of full-time students enrolled in the fall, the percentage of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition at 45 consolidated

(90 pre-consolidated) institutions from university systems across the United States.

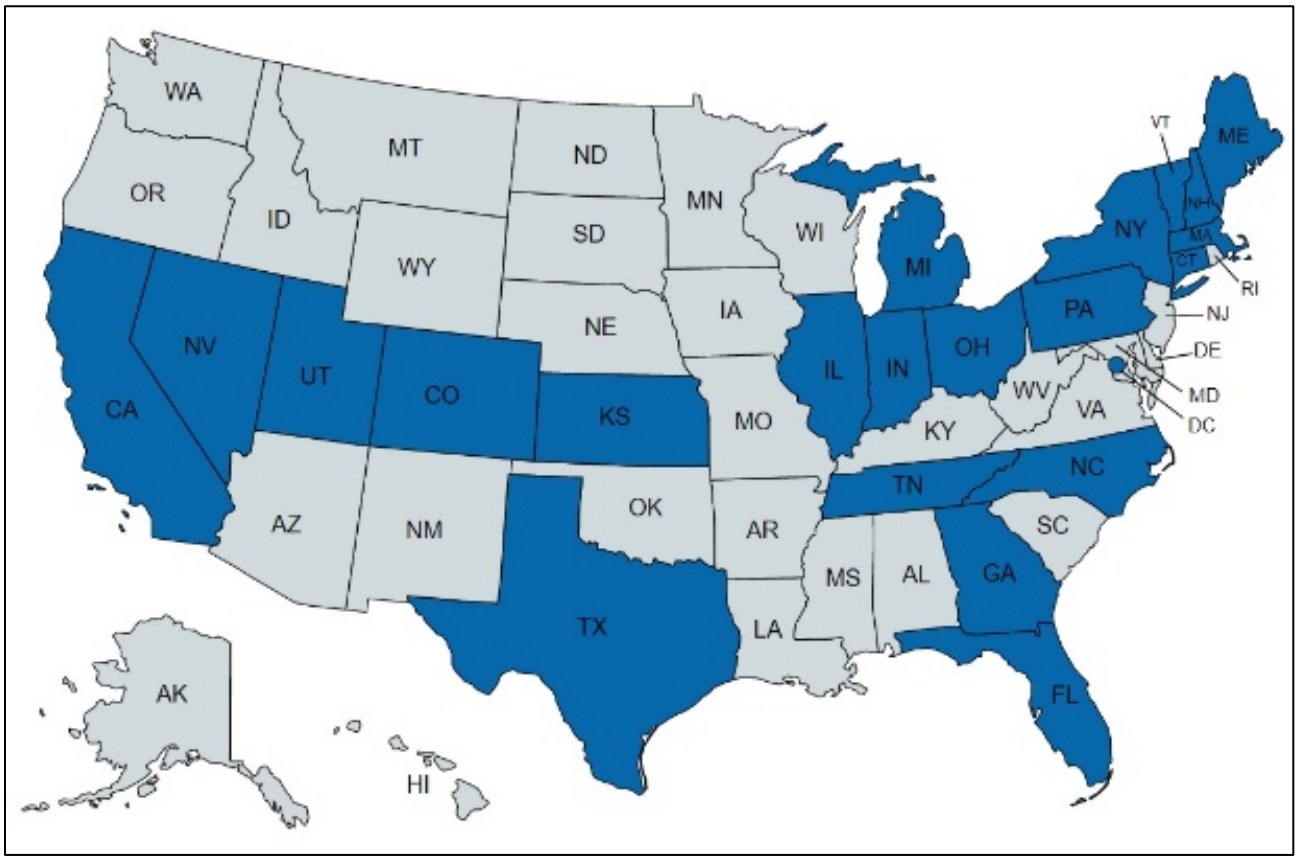
The higher education institutions included in this study are institutions from five regions (Figure 1) and twenty-two states (Figure 2) across the United States. Two institutions are from a public university system in the Midwest and five within the Midwest private sector. Three institutions are from a public university system in the Northeast, and eighteen are from the private sector. Three institutions are from the private sector of the Southeast region, and eight are from a public university system in the Southeast region. One institution from the public sector in the Southwest region is included. Finally, two institutions within the West public sector and three institutions in the private sector are included.

Figure 1. *Institution Locations by Region*



Note. Regions highlighted in yellow represent the region of institutions in this study.

Figure 2. *Institution Locations by State*



Note. States in blue represent locations of institutions in this study.

Definition of Terms

More comprehensive definitions of consolidation, acquisition and merger practices are provided in Chapter II, but these terms are defined briefly in this section for an initial discussion in Chapter I. The classifications and vocabulary associated with the processes of consolidation pose a host of complexities. Creswell (2014) stated that words of an everyday language are rich in multiple meanings; therefore, the researcher used the following terms and definitions to create precise explanations of the literature and research described. In this section, the researcher establishes invariant meaning for crucial terms (Locke et al., 2007).

Acquisition – Takeovers or acquisitions occur when one institution is subsumed into

another, with the latter retaining its name and presence and the former disappearing as an independent entity (Azziz et al., 2017).

Amalgamation and Union - Amalgamation and union, are synonymous with joining more than one entity into a solitary unit via consolidation, merger, or acquisition, with uncertain endpoints and participants (Azziz et al., 2017).

Consolidation - Institutions often use the terms consolidation and merger frequently and interchangeably because they are perceived as politically palatable. However, the term consolidation refers to a merger of equals, often taking place for financial reasons to realize economies of scale and leverage academic strengths to serve a broader constituency of students (Harman, 2002). When used interchangeably, consolidation and merger often signify the combination or transfer of the assets by at least two institutions to a newly formed institution. In the end, only one educational institution remains (Southern Association of Colleges and Schools Commission on Colleges [SACSCOC], 2018).

Merger – Merger refers to the combination of two or more separate institutions that surrender their legally and culturally independent identities in favor of a new joint identity under the control of a single governing body (Harman, 2002).

Enrollment – Enrollment refers to the number of students who achieved college admittance, completed all necessary milestones, and matriculated into a postsecondary institution to pursue a postsecondary credential (Barrett, 2017). For this study, enrollment refers to the total number of students enrolled full-time and are first-year students. This status is determined based on their fall enrollment.

Retention – Inconsistent definitions of retention and attrition exist, including differences in the specific variables and how they are measured (Holder et al., 2016). For this study,

retention is defined as the number of students who persisted in their education program at an institution. For four-year institutions, this is the number of first-time bachelor's (or equivalent) degree-seeking students from the previous fall who are re-enrolled in the current fall semester (Integrated Postsecondary Education Data System [IPEDS], 2015). For this study, retention refers to the total number of full-time students returning from the prior year. Retention is traditionally checked in the fall semester as well.

Graduation – Graduation counts are based on the number of students who entered the institution as full-time, first-time, degree/certificate-seeking undergraduate students in a particular year (cohort) and represented the number completing a program within 150%, or within six years, of the standard time to completion (IPEDS, 2015). For this study, graduation refers to the total number of full-time students who graduated within standard time, i.e., six years (National Center for Education Statistics [NCES], 2021).

Tuition – Tuition is the amount of money charged to students for instructional services. Tuition may be charged per term, per course, or per credit. For this study, the term tuition was used in place of attendance cost because the cost of attendance usually indicates tuition and technology fees, recreation fees, and other associated costs of attendance.

Following any merger, consolidation, or acquisition approach could prove cumbersome and difficult for public and private higher education institutions. This difficulty is partly due to consolidation and enrollment issues that require strategic collaboration and the navigation of multifaceted processes involving many stakeholders. However, despite these complexities, consolidation practices continue to rise among institutions across the United States.

Problem Statement

Despite the continued instances of consolidation occurring in higher education nationwide, little comprehensive research exists concerning the relationship between

consolidation and revenue-generating practices. Thus, colleges and universities lack the necessary data to make informed decisions on consolidations. Without adequate guidance, a question exists concerning the outcomes from consolidation and revenue-generating practices. As a result, institutions choosing consolidation may experience positive or negative changes in operations, despite the institution's impetus to address these facets of the process.

A well-researched body of knowledge and an abundance of consolidation strategies exist for corporations and businesses; however, the research and strategies are not entirely applicable to higher education institutions. Very significant differences exist between higher education institutions and proprietary organizations. These differences in organization, structure, operation, policy, and practice require significant consideration before leaders in higher education institutions can apply existing consolidation theories to their decision-making practices. Consequently, problems in execution, accurate consolidation classification, lack of result measurements, and result-based strategic creation and correction continue to arise.

Evidence shows that even practiced managers and consultants fail to accomplish anticipated goals. For example, failed mergers, such as the attempted merger between office supply giants Staples and Office Depot, demonstrate the complexity of incorporating diverse goals, activities, strategies, and cultures of two or more organizations into a solitary, operational unit (Hawks, 2015). While private and public sectors have similar reasons to consolidate, for example, cost savings and efficiencies, higher education institutions face additional programmatic issues that outweigh the financial incentive. Differences such as these should be considered (Hawks, 2015).

Furthermore, the lack of available research to guide mergers, consolidations, and acquisitions for higher education institutions supports a lack of understanding of the various

consolidations or merger models available through business sector research. Models from business research include pure mergers, the equal joining of two institutions to form a new one, acquisitions in which one institution completely absorbs another, and working partnerships or consortiums that allow one institution to operate under the other's name. Many leaders in higher education institutions seek to follow some of these methods. However, Hawks (2015) noted that leaders indiscriminately use the term merger or consolidation, despite the fundamental approach taken.

An organization making efforts to provide a consolidation process and guidance is the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). This accrediting body requires its member institutions to notify them of substantive changes, such as consolidations and policies and procedures associated with a change. The SACSCOC also defines acquisition, merger, and consolidation as synonymous processes (SACSCOC, 2018.). For example, the University System of Georgia (USG) administration employed a mixed-method approach under the guise of a multi-phase plan of consolidations while using the definition and accreditation policies set forth by the SACSCOC with the USG consolidation objectives, guiding principles, and implementation tasks. In the USG approach, an acquisition was determined to be "the transfer of all or a part of an institution's assets – including off-campus instructional sites and program(s) affiliated with those sites – to another institution" (SACSCOC, 2018, p. 2).

In comparison, a merger/consolidation was "the combination or transfer of the assets of at least two distinct institutions (corporations) to that of a newly-formed institution (corporation)" (SACSCOC, 2018, p. 2). Essentially, one university acquired another university or two institutions merged under the auspices of one university, which carried the name as the parent institution, and the other was referred to as the target. After the transaction was completed, only

one educational institution remained. Higher education administrators must know the differences between these unions so that the correct type of merger is selected to meet the institution's goals through consolidation. The actual process utilized to combine the joining institutions is described for those selected as part of this study (Appendix I); however, the words consolidation and merger are used synonymously throughout the study regarding the practices of mergers, acquisitions, or consolidations.

Overall, revenue-generating practices are crucial components of higher education institutions. Therefore, the lack of research or literature on merger initiatives and their impacts could present a risk for institutional leaders' decision-making concerning consolidation as a positive initiative to maintain or increase revenue-generating practices. In more recent consolidations in Georgia, all were completed in quick succession and involving leaders who had no prior experience. Therefore, risks or negative consequences could be observed as these consolidated institutions continue to operate. Taking actions that could affect critical facets of institutional operation without guidance or prediction of outcome could be a dangerous practice. This field of study requires comprehensive research; therefore, higher education merger and consolidation practices warrant the systematic documentation of outcomes and results.

Purpose Statement and Research Questions

The purpose of this quantitative multiple case study was to explore the published processes and procedures involved in institutional consolidations in the business sector and higher education, why they occur, and specific institutional reports concerning the revenue-generating practices of the 45 consolidated (90 pre-consolidated) institutions included in the study before and after consolidation. Due to the sparse research literature, practical guides, and documentation detailing the components and results of consolidations, the research questions center on each institution’s purpose for consolidating. Specifically, the focus for the study was

the existing relationships between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition.

Added complexities always accompany a consolidation, and outcomes may prove variable for an institution; therefore, the outcomes, i.e., advantages and disadvantages that arise post-merger, must be explicitly considered for revenue-generating practices. Studying changes in operations that arise after a merger could support institutions in deciding whether consolidation in the future is best for their institution. The lack of available research on institutional consolidation poses a significant handicap for college or university boards and administrations interested in achieving enrollment needs or alleviating geographic-based enrollment issues; thus, these stakeholders are often not well informed about decisions that could lead to major institutional shifts.

The current lack of comprehensive information also suggests that many administrators have been unable to make data-driven decisions regarding the impact of consolidation on issues, such as enrollment and the potential impact on the institution overall. As a result, further examination and research concerning the potential relationship between consolidation and operations in higher education institutions is needed. Therefore, this project was focused on 45 consolidated (90 pre-consolidated) institutions within the United States and the relationship between consolidation and revenue-generating practices such as the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition before and post-consolidation.

The research questions that guided this study are:

1. Does a relationship exist between consolidation and the number of full-time students enrolled in the fall at a post-secondary institution?
2. Does a relationship exist between consolidation and the percent of full-time students retained at a post-secondary institution?
3. Does a relationship exist between consolidation and the number of full-time students who graduated from a post-secondary institution within six years?
4. Does a relationship exist between consolidation and the full-time undergraduate cost of tuition at a post-secondary institution?

Framework

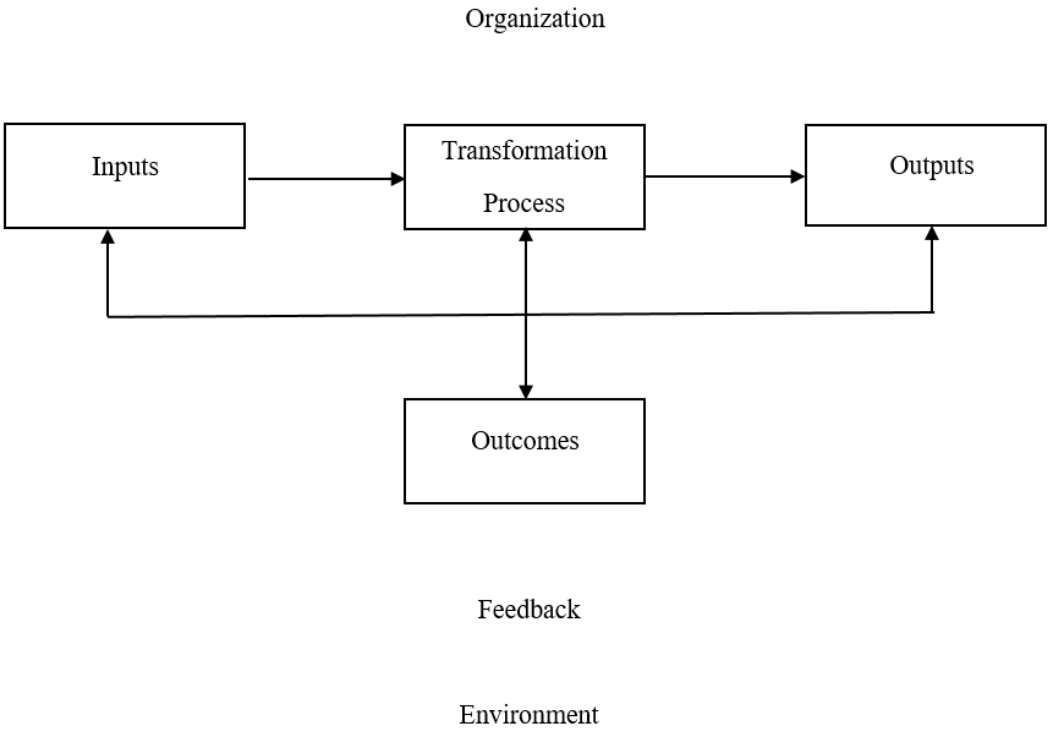
To compound an understanding of the issues, wide-ranging and often conflicting research and organizational theories involving best practices for merger and consolidation and the significant literature pose considerable challenges for implementation. A comprehensive discussion regarding consolidation, mergers, and acquisitions is provided in Chapter II; however, the theoretical framework that guides those discussions, the open systems theory (Von Bertalanffy, 1968), is first presented in Chapter I.

Von Bertalanffy's (1968) open systems theory provided the researcher with the opportunity to examine institutional consolidation through the lens of organizational change and its effect on the culture, financial, academic, and human capital. Using the open systems theory, the researcher was able to view the goals for this study holistically. Specifically, the theory was used to account for the components and complexities accompanying the joining of multifaceted organizations such as universities and colleges, with a distinct focus on the effect of consolidation on revenue-generating practices.

Senge (2006) defined a system as a set of interconnected elements functioning as a unified operational unit. Scott and Davis (2007) described an open system as being composed of

five essential elements: inputs, transformation process, outputs, feedback, and the environment. Although initial descriptions and graphics of the open system theory model only included outputs (Lunenburg, 2010), the researcher added the distinction of outcomes as an element to support the outcomes-focused facet of this study (Figure 3). The theory behind this project is based upon the assumption that consolidation, mergers, and acquisitions within higher education likely impact the revenue-generating practices of the resulting higher education institution.

Figure 3. *Open System*



Note. From “Schools as Open Systems" by F. C. Lunenburg, 2010, Sam Houston State University, 1(1) p. 2.

In this study, inputs in a higher education open system were classified as pressures, i.e., demands and supports that feed into the organization's consolidation process or an institution under pressure to consolidate. Resources are properties at the forefront of the merger consideration. These resources are comprised of (a) information, such as academics, curriculum, degree programs; (b) financial considerations such as enrollment, retention, tuition, and graduation; (c) human factors including existing staff, faculty, and administration; (d) physical assets, such as materials, equipment, and facilities. The transformation process of an open system in an institution undergoing consolidation requires the collaboration and coordination of the merging organization and inputs or resources of both institutions into one end of the system. The

transformation process includes the processes needed to convert inputs into outputs; operations or functions composed of financial, human, physical, and information must be altered to carry out the transformation. The transformation process is predicated on the active collaboration, receptivity, flexibility, and adaptability of all parties implementing the changes intended to achieve the merger's goals. In this instance, outputs can be viewed as the decisions or goals for the consolidation set by the institution's leadership. These could include a decision to consolidate to meet a goal to increase operational efficiency and educational programming value.

Notably, outputs generally signify the decisions made by organizational leadership, while outcomes are results of the outputs or decisions, signifying where the outputs have led. For example, the decision to consolidate is an output, whereas an outcome is a result that was created from a consolidation. In this study, results from the hypothesis testing of enrollment before and after consolidation demonstrate an outcome of the process. Feedback is the next step in the open systems process. Similar to the transformation process, feedback requires responsiveness or even democracy as an integral part of the decision-making process. Moreover, it can also serve as an ongoing or reflective strategy during or after the overall process. Feedback provides college leadership with an insightful awareness of the resulting benefits or deficiencies of the merger. Administrators must maintain operational responsiveness to the people who work for the organization(s) to alleviate adverse effects on the employees. Finally, the open system's environmental aspect concerns socio-economic conditions unrelated to the formal inputs into the process; these mainly concern the institution's external factors, including physical or geographical, political, economic, and social conditions before and after consolidation. Using the open systems theory, the researcher was able to emphasize that institutional resources, such as financial practices in enrollment, retention, tuition, and graduation, are essential for study as are

those more traditionally researched in higher education, such as information, human, and physical education. All of these serve as a part of the open system in an institution of higher education undergoing consolidation.

Researchers studying the complexities and differences in processes, such as consolidations, have focused on corporate and management research for decades. Nevertheless, the studies have resulted in more theories and research questions than solid practical outcomes (Hawks, 2015). Studies of organizational topics and issues, including consolidation, mergers, and acquisitions, have led to theories regarding best practices for strategy, organizational application, and choice perspectives. However, the issue that still remains is that these popular theories were focused on measuring results as discussed and tested within the corporate realm (Hawks, 2015). Identifying best practices and methods to achieve the best measurable result (i.e., pre and post-merger metrics) of businesses are not easily assessed or transferred over to implementation and evaluation methods for higher education institutions.

Instead, following a theoretical framework posited on the open systems theory could support leaders in higher education institutions to expand their focus to include outcome-based changes related to revenue-generating practices while evaluating the comprehensive effectiveness of consolidations, mergers, and acquisitions. Moreover, the open systems approach is consistent with the researcher's use of multiple cases of consolidations, mergers, and acquisitions in higher education to make comparisons between the cases and understand the changes within organizations' financial systems, including enrollment, retention, tuition, graduation (Baxter & Jack, 2008; Stake, 1995).

Using a quantitative multiple case study approach provided an opportunity to evaluate data across institutions, identifying a parallel or significant contrast in results based on the

questions that guided the study (Yin, 2008). In this way, the researcher could better elucidate the value of the findings (Gustafsson, 2017). Overall, when cases of consolidation are compared, the ability to identify and provide the appropriate literature, influenced by the resulting data's contrasts and similarities, becomes more achievable (Vannoni, 2015). Gustafsson (2017) stated,

> An all-embracing fact is that the evidence created from a multiple case study is measured strong and reliable. Other advantages of multiple case studies are that they create a more convincing theory when the suggestions are more intensely grounded in several empirical pieces of evidence. Thus, multiple cases allow a wider exploration of research questions and theoretical evolution. p. 3

Utilizing a quantitative multiple case study methodology guided by the open systems theory lens increased the efficiency and ability to identify the impact of mergers, consolidations, and acquisitions on critical institutional systems, such as revenue-earning practices, proficiently and comprehensively. As described in the study's problem, the merger's outcome likely has broad unintended influences on processes and facets of the university (i.e., enrollment). The consequences could spare once-struggling institutions from closure or enable others to resolve many revenue or finance-based issues.

Significance of the Study

The practice of mergers and consolidations among higher education institutions is not a new venture, despite a significant gap regarding best practices and strategies to guide higher education institutions (Thelin, 2011). For example, in the mid-1970s, Millett (1976) and the American Council on Higher Education published a study to identify best practices for financially struggling institutions considering mergers (Hawks, 2015, p. 28). However, this work was not extended until 20 years later, when Martin and Samels (1994) provided growth strategies for institutional mergers that included a practical and theoretical guide on merger impacts on

academic, financial, administrative, legal, personnel, and students. Unfortunately, they did not follow up on their work for eight years, when these authors then discussed the same topic and offered other best practices that did not support pursuing consolidation (Martin & Samels, 2002). Thus, this existence of scattered articles and books on consolidation, little cohesion of literature and theory, gaps in understanding the facets of the process, and a lack of comprehensive information poses a significant problem for higher education institutions considering consolidation.

Additionally, leaders of corporations and large businesses still struggle to carry out successful organizational amalgamations. Therefore, it is questionable how administrators and leaders within higher education institutions can be expected to complete an effective consolidation. Based on the reviewed literature, leaders within higher education have basic familiarity with the concept of consolidation and its results; however, few comprehensive texts or studies are available to provide further insight (Akhondzadeh et al., 2013; Drowley et al., 2013; Hawks, 2015).

To further compound the issue, state legislators and society in general continually expect more from public institutions. Nevertheless, in many states, legislatures continue to limit funding, as evidenced by institutions following the financial crisis of 2007, the recession that followed, and the attempts institutional leaders made to compensate for their shortfall in tuition dollars (Hawks, 2015). In 2012, several nationally published reports revealed horizontal or marginally declining post-secondary enrollment, while in Georgia, Governor Deal announced the goal of adding 250,000 post-secondary graduates to the population by 2020 (Fain, 2012; Office of the Governor, 2012). On a national level, President Barack Obama declared in 2009 that by 2020, America should “once again have the highest proportion of college graduates in the world”

(Fry, 2017, para. 1).

As institutions continue to face reformed budgets, demanding stakeholders, economic downturns, and lofty goals set by state governments, higher education administrators need tactical methods and initiatives to increase proficiency, create new sources of revenue, and more efficient operations. Not surprisingly, increased demand on institutional performance and delivery without improved support has affected interest in partnerships, mergers, and consolidations. Increasingly, institutions have pursued strategic alliances to accomplish this critical objective (Martin & Samels, 2002). While the purpose of this study was not to produce a guide for institutions, the study does include a holistic view to ensure that facets of the open system, including revenue-generating practices, instead of just human capital, are considered pre and post-consolidation. As a result, this project serves as a study of higher education institutions' need for data regarding financial implications by researching the relationship between consolidation and the final unified institution, focusing on revenue-generating practices, such as enrollment, retention, graduation, and tuition.

Scope of the Study

The relationships examined in this study are between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition in 45 consolidated (90 pre-consolidated) institutions from university systems across the United States. Student enrollment and retention are an integral part of the function and operation of higher education institutions. Therefore, the researcher investigated the impact that consolidation may have on these operations within the included institutions. Higher education organizations included in this study comprised two institutions from a public university system in the Midwest and five within the Midwest private sector; three institutions from a public university system in

the Northeast, and eighteen institutions from the private sector. In addition, three institutions in the private sector and eight institutions from a public university system in the Southeast region are included. One institution from the public sector in the Southwest region. Finally, two institutions within the West public sector and three private sector institutions were evaluated. While there have been numerous consolidations between two-year community colleges and technical institutions and systems, they were not included in this study due to discrepancies in data recording and reporting among those colleges and two-year to two-year mergers specifically. Appendix I provides an overview of the institutions included within the study and groups the institutions by the United States region, type of merger, date of the merger, the pseudonym of the final merged institution, and the two individual institutions before consolidation.

Summary

The study was organized as a five-chapter quantitative study comprised of an introduction, literature review, methodology, results, and conclusion. Chapter I includes a myriad of issues associated with the significant increase of consolidations among higher education institutions. The lack of comprehensive data or guidelines for organizational leaders to review is significant and likely impacts facilitating consolidations, mergers, and acquisitions between higher education institutions. The chapter explicitly contains information supporting the lack of studies regarding the relationships between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. Chapter I outlines the purpose of this study which concerns understanding how the lack of comprehensive research can be detrimental to the consolidation and revenue-generating practices. Additionally, the theoretical framework for the study is described, which supports a perspective less oriented to a

process-based method and more toward a quantitative approach to evaluate how enrollment, retention, graduation, and tuition may be affected.

Chapter II comprises an inclusive review of current research related to the research questions. More specifically, consolidation practices in for-profit and not-for-profit industries are discussed in detail. Further insight is given into the differences between consolidations, mergers, and acquisitions in the corporate realm and how this information translates to higher education institutions. Articles providing examples of mergers and studies discussing trends in consolidations in higher education are provided, and enrollment data gleaned from the IPEDS government database of multiple institutions across the United States are explored. Finally, a more detailed description of the quantitative multiple case study method utilized in this study is also described.

Chapter III explains the methodology, including the sampling techniques, instrumentations, procedures, and statistical analysis conducted. Protocols for data collection are presented, along with a detailed description of the data analysis procedures. The researcher used data from the IPEDS government website to examine and establish the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition at the 45 consolidated (90 pre-consolidated) institutions included in the study, based on institutional reports. A histogram was used to establish the frequency distributions of data constituting these variables. A paired t-test was used to determine the statistical significance of data with a normal distribution.

The pre-consolidation incentives for each institution's consolidation decision were identified and compared to pinpoint common reasons, such as economic necessity, growth,

synergy, and improved efficiencies. Chapter III includes a discussion of the validity and reliability of the research methodology used in the study.

Chapter IV comprises a discussion of the organizational-based theory processes utilized in the study was based on Von Bertalanffy's (1968) open systems theory and a multiple quantitative case study approach to answer the study's research questions. The chapter contains results from the paired t-test. In this chapter, a description is given of the likely relationship between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition, focusing on cross-sectional matching estimates, persistence, and outcomes. The analysis suggests an initial standard view of non-consolidated and consolidated outcomes and establishes the possibility of a relationship existing between mergers and each critical operational area. Descriptive statistics and data tables are included to organize and present the relevant quantitative data. Some tables contain results demonstrating how acceptance or rejection of the null hypotheses was obtained for each proposed relationship, between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition based on findings.

Finally, Chapter V contains the results related to the study's research questions, literature review, and conceptual framework. The study's conclusions and implications concerning consolidation and revenue-generating practices are addressed in light of the study's research questions. The researcher's reflections on the methodology and findings and the practical and theoretical implications are explored. Lastly, recommendations for further research based on the results are provided.

CHAPTER II

LITERATURE REVIEW

This chapter contains a review of relevant literature regarding the definition of mergers, consolidations, or acquisitions within businesses and higher education organizations, specifically colleges and universities. The literature is grounded in existing research of mergers within higher education institutions, concentrating on the relationships between the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. The chapter also provides a historical context for mergers in the business and higher education fields, identifying the various types of mergers, key drivers, and the impact on multiple populations, stakeholders, processes, and organizations.

While the research included within the chapter is grounded in standing studies of mergers in higher education, the review is framed through the application of the open systems theory, focusing literature through the lens of the five basic elements: inputs, transformation process, outputs, feedback, and environment (Lunenburg, 2010), as well as the more tangible outcomes or results of the merger itself. The open systems theory has played a pivotal role in the way researchers analyze and understand academic institutions as organizations and the importance of understanding the interrelated nature of each facet of the system that makes the whole (Maison, 2018). This approach provides insight into the complex and common resistance to change within higher education organizations, providing a foundation for recognizing the organization's facets, processes, cultures, and subcultures, especially when considering a significant change such as a merger.

There is a significant gap in the literature associated with defining the relationship and

critical factors between consolidation, the transitional process and ultimate success or failure of a higher education consolidation, and the management of express quantities of change. Institutional administrators often tout the positive aspects of a merger, with even fewer providing a complete listing of possible obstacles the consolidation may face. Additionally, most post-consolidation research citing the implications, obstacles, and outcomes are typically curated summaries or news articles about the consolidated organizations' operational progress and cultural impacts. Consequently, a significant lack of comprehensive quantitative research reporting on pre and post-institutional consolidation outcomes exists. Researchers can use open the systems theory to explore and identify the qualitative and quantitative challenges and possible outcomes institutions face when striving to blend the multiple facets, processes, and organizational cultures of two or more organizations undergoing mergers.

The information included in this study is drawn from articles, journals, books, and data shared from institutional research offices in the institutions included in the study. Additionally, information gleaned from the board of regents' open records database, IPEDS, surveys, and materials from multiple institutions is referenced. Institution-based literature also includes the post-consolidation number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition for a more comprehensive view of consolidation's relationship to these ventures across the nation—the research and evidence provided by the literature review support whether a relationship can be established.

Historical Context for Consolidation

Business Sector Consolidation

Historically, mergers originated in the business sector and took place within the field throughout five periods called "waves" (Malik et al., 2014). These waves occurred from 1897 to

1904 (first wave), 1916 to 1929 (second wave), 1965 to 1969 (third wave), 1984 to 1989 (fourth wave), and 1993 through 2000, signifying the fifth wave. The objectives of mergers and acquisitions during waves transitioned as the early goals shifted from attaining a monopoly, or exclusive control, between similar organizations in the first wave, to striving to attain a market oligopoly or shared market. In the second wave, partnerships and support of exterior organizations were the approaches taken by companies such as investment banks (Malik et al., 2014).

An example of a first wave merger is the 1901 merger of Carnegie Steel Company, Federal Steel Company, National Steel Company, and J.P. Morgan into the United States Steel Corporation. A second wave merger example is the 1929 purchase and merger of Clarence Birdseye's General Seafood Corporation and its quick-freezing patent by Post Cereals and Goldman Sachs Trading Corporation (later named General Foods). During the third wave, the business sector included significant increases in mergers between dissimilar organizations. An example of such a merger is the 1968 merger of mail order and department store Montgomery Ward Inc. and Container Corporation of America, ultimately becoming MARCOR.

Third-wave organizations also began working together to consolidate, often with the burden of support mainly falling on the business owners' shoulders. Eventually, the birth of the hostile merger or takeover emerged in the fourth wave (Malik et al., 2014). One example of a fourth wave takeover is the 1988 Campeau Corporation hostile takeover of Federated Department Stores. Eventually, merger activity began to decline near the end of the 1980s, though not for good.

Merger and acquisition activity began to gain traction again in the early 1990s, leading to the fifth merger wave that lasted until 2000. The fifth wave differed from the first four waves

because merger activity demonstrated an increase in share markets, globalization of the economy, international mergers, deregulation, technological innovations, and equity capital funding, which had initially been provided via debt financing (Roberts, 2009, p. 2). An example of a fifth wave merger is the world's largest cross-border merger of the German multinational auto company Daimler-Benz AG and smaller United States-based automobile manufacturer Chrysler Corporation in 1998.

The waves of merger and acquisition activities have led to substantial changes in American business structure that remain apparent in merger practices today. Mergers and acquisitions "were instrumental in transforming the American industry from a collection of small and medium-sized businesses to the current form, which includes thousands of multinational corporations" (Gaughan, 2007, p. 29). Today, mergers and acquisitions within the corporate sector combine companies and assets, generate growth, achieve a competitive advantage, and increase market share. For example, The Walt Disney Company has acquired various companies, including 21st Century Fox, Pixar, Marvel, Lucasfilm, The Muppets, and Miramax Films, to increase company size in the media industry. These types of amalgamations have become standard practice within the private sector. For the most part, they are recognized as enabling the consolidating organizations with increased market power, organizational presence, and advantage over competitors in their industry.

Not surprisingly, these practices began to surface in the public sector and have grown to be viewed as complementing, empowering, and strengthening strategies. Unfortunately, organizations often blindly adopted this ideology within other sectors, such as nonprofit and higher education. While many colleges and universities do not consider their student populations as traditional products, they may recognize the "fundamental laws of supply and demand,

consumer and firm behavior, and industry growth and contraction can still provide significant insights for nonprofit institutions like higher education" (Hawks, 2015, p. 17). In times of economic stress, higher education institutions execute activities such as mergers and acquisitions among higher education systems to gain financial stability; these transactions have become more common within the public sector, though popularity and efficiency are still cause for heated debate.

Higher Education Consolidation

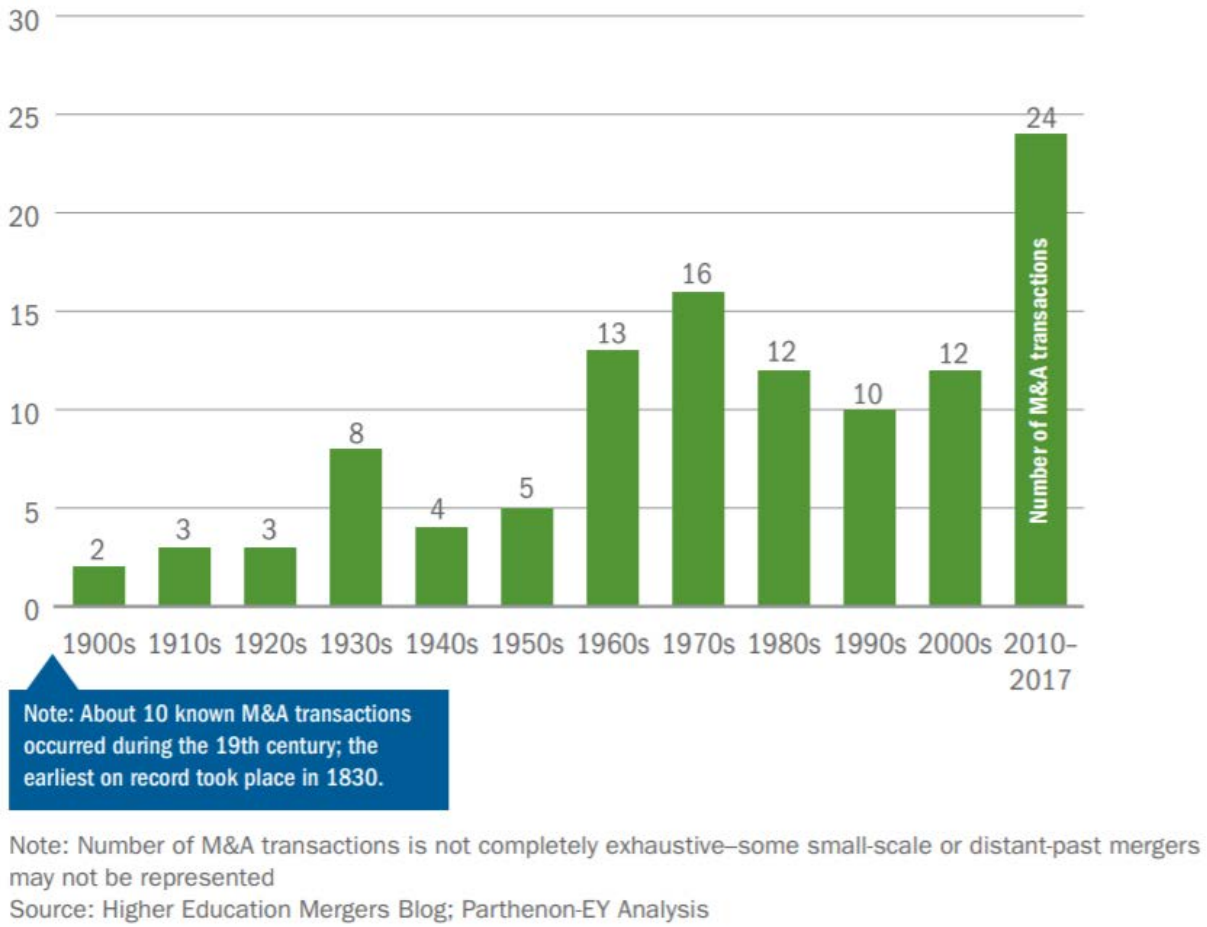
As previously discussed, a wealth of information and research exists on mergers and acquisitions within the business sector. Some studies of business sector mergers were conducted with the "lenses of financial performance measures, long-term strategic management goals, and economic theory" (Etschmaier, 2010, p. 12). Business researchers have focused on the impacts of mergers and acquisitions on human resources and organizational culture by taking a qualitative approach to their analysis. Despite exploring various aspects of business sector mergers, the body of research contains significant fragmentation on these related topics.

Similar to the business sector, mergers and consolidation procedures in higher education have been flexible in hopes that various institutions could utilize these to achieve diverse strategic goals and outcomes (Bates & Santerre, 2000). Additionally, the political, economic, and technological forces that drove higher education mergers changed over time. Thus, although historically, mergers in higher education did not undergo waves as in the business sector, a variety of types of mergers have evolved, originating from strategic management, theory, practice, changing international perspectives, integrating organizational cultures, and developing management styles (Ohman, 2011, p. 5).

However, unlike the business sector, there is an even smaller research volume providing a comprehensive appraisal of the landscape, financial implications, motivations, and process of

mergers within higher education. Additionally, little to no research exists measuring merger success, which varies based on the union's stated and unstated motivations and goals. The environment for higher education has continued to change at an increasingly rapid pace due to factors including globalization, increased market competition, and advancements in technology. As a result, a persistent question arises regarding how universities and colleges will react to these challenges. While institutions cannot predict success and resiliency, conducting more comprehensive studies could aid in understanding the impacts as mergers continue for this sector (Figure 4).

Figure 4. *Number of M&A Transactions in United States Higher Education 1900 - 2017*



Note: Number of M&A transactions is not completely exhaustive–some small-scale or distant-past mergers may not be represented
Source: Higher Education Mergers Blog; Parthenon-EY Analysis

Note. From "Mergers in Higher Education: A Proactive Strategy to a Better Future?" by R. Azziz, G. Hentschke, B. Jacobs, L. Jacobs, and H. Ladd, 2017, TIAA Institute, page 12. Copyright 2017 by the Teachers Insurance and Annuity Association of America-College Retirement Equities Fund (TIAA-CREF).

Types of Mergers

A crucial concept in the debate of institutional mergers within higher education is the absence of a single merger strategy rather than the multiple merger types that have existed. A common misconception about the practice of merging is that two institutions coming together will function as a single new and improved institution. As a result, the processes under which the institutions are joined are often overlooked and unexplored. However, similar to the motivations and goals that influence higher education organizations to pursue a merger, the types of unification processes that are completed differ in type and process.

In an in-depth study, Eastman and Lang (2001) examined why higher education institutions merge. They stressed that how "universities and colleges will react to these changes cannot be predicted, but it is probable that mergers will be one route they take" when discussing the rapidly changing landscape of higher education (Eastman & Lang, 2001, p. 4). Thus, understanding what drives mergers in the higher education sector becomes crucial, including the forms they may take and the types of objectives and goals they wish to accomplish. Identifying and outlining these facets of a merger process links directly to the outputs within the open systems theory and could aid future organizational leaders in more efficiently identifying ways to plan and execute a merger strategically. The following discussion includes merger processes that organizations in the business and higher education fields use to achieve unification.

Merger

A merger is a blending of two or more organizations. A merger is typically a process in which the identities of at least one of the parties involved are not lost after the merger is

completed (Agarwal & Mittal, 2014). Generally, the stockholders of the companies that are merging become shareholders of the final consolidated company. Within the general process described above, merger strategies differ in type based on the merging companies' requirements and conditions.

Business Sector Mergers

Congeneric Merger

A *congeneric merger* occurs between companies that operate within the same or similar industries or markets but do not share a customer-supplier relationship. The purchasing company and the target company may possess intersecting technology or production systems. This merger process provides the final merged company with the opportunity to reach and acquire customers of both original companies using similar sales and distribution channels (Agarwal & Mittal, 2014).

Conglomerate Merger

In a *conglomerate merger*, the merger is a process that occurs between companies that are involved in entirely different sectors of commerce (Gaughan, 2007, p. 13). The most common reason for this merger style is to achieve diversification without spending large amounts on setup costs or securing initial funding resources. Additionally, conglomerate mergers allow the merged company to gain access to expanded financial resources and increase the worth of remaining shares. As an example, in 2017, Amazon merged with the Whole Foods grocery chain. This merger provided Whole Foods with much-needed financial support while aiding Amazon in gaining a foothold within a niche grocery market that proved valuable real estate in numerous upscale communities (Sherman, 2019).

Horizontal Mergers

These mergers take place between competing companies. Essentially, during this merger,

the companies involved are typically in a similar market or sector and a comparable business stage (Agarwal & Mittal, 2014). By executing a horizontal merger, the merged company can establish a monopoly in the market by reducing existing competitors. For example, if "Whole Foods had merged with the Kroger chain, that would have been a horizontal merger. This strategy reduces competition and increases the combined company's market share" (Sherman, 2019, para. 19).

Vertical Merger

A *vertical merger* concerns taking over a direct supplier in a different industrial process stage but the same sector. This merger process is pursued to reduce overhead costs, decrease transaction costs, and provide the merged company with increased independence and self-sufficiency. An example is a healthcare organization that acquires its ambulance service providers (Agarwal & Mittal, 2014).

Market Extension Merger

A *market extension merger* occurs when geographically separated companies join as one. This process provides the consolidated company with an opportunity to expand its range of operations, reach, and potential customer base. An example is the acquisition of Eagle Bancshares Inc. by RBC Centura. Because Eagle Bancshares is headquartered in Atlanta, GA, and has assets worth $1.1 billion, the merger enabled RBC to expand operations in the North American market to diversify its base of operations (Minority Business Development Agency, 2012).

Higher Education Mergers

Single-Sector Mergers

Researchers have defined *single sector mergers* as two or more similar sector-based institutions merging, such as two universities (Eastman & Lang, 2001, p. 107). An example of a

single sector merger is the 2013 union of Waycross College and South Georgia College. These colleges were two of the smallest schools within the University System of Georgia and were located in the state's southern region. Crucial to the merger was that they also both possessed "very similar missions and programs offerings in the region" (Board of Regents of the University System of Georgia, n.d.). The merger was intended to create a consolidated institution comprised of over 3,000 students, which enabled "economies of scale while maintaining college access for South Georgia students" (Board of Regents of the University System of Georgia, 2012).

Cross-Sector Mergers

Cross-sectoral mergers involve institutions from different sectors, such as a community or two-year college merging with a four-year state institution (Eastman & Lang, 2001, p. 107). An example of this type of merger is the 2020 union of Cambridge College and New England College of Business. A private, nonprofit institution, Cambridge College acquired the New England College of Business, a business school in the for-profit sector. The president of Cambridge College cited the merger as providing an opportunity to expand reach to online business learners more quickly than the time it generally takes to establish an online program and market presence (Fernandes, 2020).

Horizontal Mergers

Horizontal mergers occur between institutions in the same academic field and provide similar specified offerings, such as two nursing schools (Eastman & Lang, 2001, p. 107). An example of a horizontal merger is the 1955 union of the College of Music and The Conservatory, which ultimately merged into the Cincinnati College-Conservatory of Music. This merger of "two of the most prominent music institutions in the country" combined faculty, leadership, and facilities with well-established reputations and backgrounds "to form one of the premier music colleges in the country" (The University of Cincinnati, n.d., para. 20).

Vertical Mergers

Vertical mergers occur between institutions offering courses in different academic areas (i.e., a polytechnic and a college of education). In a vertical merger, institutions can be of the same academic field but have different offerings, such as a degree-granting engineering school merging with a college training engineering technologist (Eastman & Lang, 2001, p. 107). An example of this form of a merger is the 2012 merger of Augusta State University and Georgia Health Sciences University. As cited by the USG Board of Regents, the merger represented an effort by the USG to

> Create a new university that builds on the strength of two institutions with distinct missions … a 21st-century research institution that provides high quality and comprehensive undergraduate programs and top-tier health education and research that meets regional and statewide needs. (Board of Regents of the University System of Georgia, n.d.)

Voluntary vs. Involuntary Mergers

Like a market extension merger, which occurs when companies separated physically by geography come together as one, voluntary and involuntary mergers provide institutions in different locations with similar opportunities but under very different circumstances. In higher education, *voluntary mergers* are defined as between institutions that choose the process. An example of a voluntary merger is the 2000 merger of Fordham University and Marymount College, which was viewed to be mutually beneficial for the schools with Fordham gaining an "expanded presence in an upscale suburb, while Marymount was able to retain its identity as a liberal arts college for women under the Fordham umbrella" (Mytelka, 2008). In contrast, *involuntary mergers* are commenced by external influencers and not by the institutions themselves (Eastman & Lang, 2001, p. 11). An example of an involuntary merger is the merger

of Trenholm State Technical College with the John M. Patterson State Technical College as mandated by a state governing body. The state intended to "desegregate education and to combine institutions with complementary programs into a single, stronger entity" (Etschmaier, 2010, p. 51).

Consolidation vs. Acquisition

Business Sector

Consolidation

In contrast to a merger in which two or more companies combine into a single entity with a final parent or surviving company, *consolidation* or *amalgamation* is the blending together of two or more business entities in which both lose their identities and a new distinct entity is born (Gaughan, 2007, p. 12). Companies A and B combine into new company C, and both companies' shareholders gain allotted shares of the new company. For example, in 1986, the computer manufacturers Burroughs and Sperry combined to form UNISYS (Gaughan, 2007, p. 12).

Acquisition or Takeover

An *acquisition* or *takeover* is the nearly complete procurement or takeover of one company by another. However, the acquired company continues as a distinct entity controlled by the acquiring company (Agarwal & Mittal, 2014). Additionally, unlike a merger or consolidation in which almost all the assets and liabilities of the assimilated business belong to the acquiring company, an acquisition does not necessitate taking possession of the acquired company's liabilities. The conditions surrounding an acquisition can also be identified in a variety of ways as well, and these are described below.

Friendly Acquisition

A *friendly acquisition* is indicative of a process in which full cooperation and common interests exist among all parties involved in negotiations (Sherman, 2019). For example, CVS

Health Corp. (CVS) broadcast its plan to acquire health insurer Aetna Inc. for $69 billion in cash and stock, providing all shareholders an opportunity to vote and approve the merger (de la Merced & Abelson, 2017).

Hostile Acquisition

A *hostile acquisition* is a process in which the acquiring company forces purchase, even though the administration or board members of the acquired company are unaware or opposed to the transaction (Sherman, 2019). An example is an action taken by the pharmaceutical company Sanofi-Aventis (SNY) during its acquisition of Genzyme Corporation. The latter manufactured drugs that treat rare genetic disorders, sparking Sanofi-Aventis's interest in acquiring the company to broaden its product offerings and expand into a niche industry. Sanofi-Aventis initially provided several unsuccessful friendly acquisitions offers to Genzyme, which resulted in Sanofi-Aventis directly offering Genzyme shareholders a premium for their shares with the added contingent value rights (de la Merced & Kaplan, 2010). These hostile actions resulted in the successful acquisition of Genzyme.

Bailout Acquisition

A *bailout acquisition* occurs when a profitable company acquires a company that is struggling financially. This type of acquisition arises when "the motive to payout fewer taxes by combining the profits with losses of the sick company; thus, it is a bailout method from the taxes on the profit margins" (Agarwal & Mittal, 2014, p. 237). A commonly cited example is the National City Corp acquisition by PNC Financial Services. National City Corp had experienced a significant loss in the 2008 economic downturn. As a result, PNC purchased $5.2 billion of National City's stock to prevent potential bankruptcy and acquire the corporation (Gogo, 2008).

Leveraged Buyout

A *leveraged buyout* occurs when the acquiring company takes out loans to cover the acquisition cost (Agarwal & Mittal, 2014) and utilizes the acquired company's assets as collateral. This action provides the acquiring company with the opportunity to execute substantial acquisitions and market increases without having to foot the bill from their personal companies' resources. An example is the $32 billion acquisition of RJR Nabisco by KKR in 1989. Negotiations ensued as KKR competed with RJR's management team, starting with a proposal of $75 a share to $90 a share, ultimately landing at $109 a share as accepted by the board (Bartlett, 1988).

Higher Education

Consolidation within higher education is defined commonly as occurring when two or more similar institutions A and B combine to form a brand-new institution C. In contrast, an acquisition (or takeover) occurs when a small institution is absorbed into a larger institution to make a single, more significant institution (Eastman & Lang, 2001, p. 108). An example of consolidation is the 1967 union of Western Reserve University and Case Institute of Technology, which ultimately formed Case Western University. The merger was considered to position the final institution for increased national recognition. In addition, some stakeholders expected the process to be smooth because both institutions had been in collaboration for many years and had occasionally shared facilities (Azziz et al., 2017, p. 6).

An example of a takeover in higher education is the 2015 acquisition of the internationally business-focused Thunderbird School of Global Management, an independent and private institution, $4 million in the red at the time, by Arizona State University (Ellis, 2013). The reason for the takeover, as stated by Arizona State University's President Crow, is that the acquisition could

Create new opportunities for our students … provide a platform for showcasing ASU's

> strengths to a new set of partners around the world ... Thunderbird students will have access to a much broader range of courses … being part of a major research university. (Campbell, 2014, para 2).

Trends in Consolidation

Merger Motivations and Benefits

> Mergers seem to create shareholder value, with most of the gains accruing to the target company … efficiency-related reasons that often involve economies of scale or other synergies; attempts to create market power, perhaps by forming monopolies or oligopolies; market discipline … self-serving attempts by acquirer management to over-expand and other agency costs; and to take advantage of opportunities for diversification, like by exploiting internal capital markets. (Andrade et al., 2001, p. 103).

The motives and trends for mergers vary between for-profit and not-for-profit organizations. However, most researchers have focused on organizations in the business sector that usually pursue a merger or acquisition based on a purely revenue-increasing motive. Haleblian et al. (2008) conducted a comprehensive study of mergers and acquisitions. Over 80% of the articles identified in the study originated from "finance, accounting, or management literature with fewer than five articles coming from a non-business field, sociology" (Hawks, 2015, p. 18).

Similar to Haleblian et al.'s (2008) study, most of the literature and research concerning consolidation was focused on organizations within the business sector and concentrated on the essential significance of the profit motive; i.e., the concept that companies essentially existed to produce profits and maximize shareholder value (Bauer & Matzler, 2013). As a result, regardless of an organization's decision to merge or acquire another company, the consolidation's goal is a

"means to an end of enhancing profitability" (Hawks, 2015). In the few studies in which researchers explored the reasoning for mergers and acquisitions outside of the business sector, most organizations utilized the process as a proactive approach to growth and organizational restoration. Moreover, non-profit organizations appeared more likely to pursue a consolidation as a reaction to economic uncertainty and the scarcity of resources (Hawks, 2015, p.19). Their final goals were to achieve growth, synergy, or diversification; however, their motives for consolidation are born out of economic necessity more often than not. Framed by the open systems theory through the lens of organizational change and the transformational process, the external and internal motivators and possible impacts on the viability of the organization post-merger are essential considerations. The open systems theory is focused on inputs and how internal and external shifts or pressures can influence the organization's decision to merge. The open system is a lens for articulating the impacts these factors have on the organization's future considerations (Maison, 2018, p. 27).

Economic Necessity

Economic necessity is a frequent motivating factor for organizations to pursue a merger. For example, suppose two organizations are struggling financially in the business sector. In that case, a merger may be pursued or forced internally or externally, i.e., by government pressure, to improve the companies' financial standing. Alternatively, a struggling organization or one just well enough to support a newly formed company's survival may choose or be forced to merge with a financially stable organization. Economic performance and financial improvement are some of the most dominant motives for mergers and acquisitions and are typically viewed as an opportunity for economic gain for both merging companies. "According to this motive, mergers are undertaken in order to achieve cost savings. Potential cost advantages include both fixed costs and variable costs" (Ali-Yrkkö, 2001, p. 11–12).

Intersecting cost elimination, merged organizational financial performance, average unit costs reduction, and lower internal financing costs versus external financing can also serve as common economic motives (Myers & Majluf, 1984). An example of a merger born out of economic necessity is the 2008 merger of Wachovia into Wells Fargo to prevent Wachovia's failure due to the economic downturn and market failure of 2008. The former Chief Executive of Wachovia, whose shares had plummeted below $2 before the merger, stated that the merger with Wells Fargo created "one of the strongest financial firms in the world and is great for all Wachovia constituencies: our shareholders, customers, colleagues, and communities." Steel also cited that the deal enabled them to "keep Wachovia intact and preserve the value of an integrated company, without government support" (New York Times, 2008, para. 4).

Another similar scenario is when both organizations face business adversities and cannot continue to compete or lack the capital to grow. In these cases, a merger may be pursued or forced, internally or externally, due to government pressure to improve one or both companies (Sherman & Hart, 2006, p. 18). An example of the former is the merger of Sears and Kmart in 2005. Former retail powers, Sears and Kmart, experienced a decline in sales and losses to competitor brands such as Walmart (Ring & Strong, 2017). Although some notable competitor brands, such as Sam's Club, had successfully adapted to the technological and competitive environments of the retail industry, the consistently old-school, mall-based department stores like Sears and Kmart, which declared bankruptcy in 2002, were continuing to lose market share (Ring, & Strong, 2017). To increase their market share and forestall decreasing sales, the companies combined, establishing the new company as the eighth-largest retailer in the United States.

Economic necessity as a motivator for mergers within higher education is exemplified by

the Boston University and Wheelock College case. Before consolidation, Wheelock offered various undergraduate and graduate programs, including education, family studies, social work, and child life. Although Wheelock's administration initially reached out to other educational institutions perceived as matches for a merger based on institutional mission and the higher education landscape, Wheelock selected Boston University. Wheelock merged with Boston University due to shifting program demand, demographics, and rising operational costs. Ultimately, the college determined that it would be in the college's best interest to identify a partner rather than risk continuing operations as a stand-alone institution in a very uncertain time (Larkin, 2017). As a result, Whitlock's financially struggling academic programs and physical campus merged with the Boston University School of Education on June 1, 2018. This merger resulted in the consolidated academic unit entitled The Boston University Wheelock College of Education & Human Development, housed in the larger Boston University, with Wheelock's physical campus becoming The Boston University Fenway Campus.

Growth

Another fundamental motive for mergers and acquisitions is growth. Mergers and acquisitions allow organizations to bypass internal or organic growth, which may be a slow and uncertain process, whereas pursuing growth via a merger or acquisition can significantly expedite the process. However, uncertainties may be shifted or eliminated (Gaughan, 2007, p. 117). Within the business sector, instances might occur in which organizations may need to act quickly on an opportunity or venture in which traditional strategies may not suffice. One example is a need to keep up with competitors who can respond quickly to market shifts and swiftly acquire market share.

Another example is a company with a new marketing concept. As Gaughan (2007) described, "Being the first to develop the concept provides a certain limited time advantage. If

not properly taken advantage of, it may slip by and become an opportunity for larger competitors with greater resources" (p. 117). As time passes and industry advantages decrease, a company may view a merger or acquisition as the only solution to acquire the additional resources, facilities, management, products, or other resources needed to gain an advantage over competitors. In the end, growth achieved via a merger can be in or outside of the company's traditional industry or geographic market, with expansion outside of the companies' industry commonly referred to as diversification.

Johnson & Johnson has proven to be a master at utilizing mergers and acquisitions to grow by acquiring companies with product lines or services they can offer to their customer base, including their most recent venture into developing a COVID-19 vaccine. Since 1995, Johnson & Johnson has been a part of numerous domestic and international mergers and acquisitions, adding up to about 1,186 transactions with a value of over $88 billion (IMAA Institute, n.d.). Additionally, Johnson & Johnson has engineered over 50 mergers (Gaughan, 2007, p. 118.) to achieve strategic goals, such as avoiding time-consuming internal development, surpass critical competitors within the market, and providing a large variety of products without internal development. Instead of striving to be at the forefront of every central area of innovation, Johnson & Johnson has strategically acquired companies that developed successful products to increase their product and market reach. Examples of these products include pharmaceuticals, medical equipment, surgical robotics, and consumer products that encompass but are not limited to Band-Aids, baby products, contact lenses, and beauty products (Johnson & Johnson, n.d.). This strategy can be expensive, i.e., a bid for the company Guidant was $25.4 billion. Therefore, companies must understand their financial limitations before embarking on such a venture.

The New York University (NYU) and Polytechnic University merger case represents a

merger motivated by growth in higher education. The merger provided NYU with the opportunity to grow and strengthen by re-establishing academics in subject areas such as applied science, technology, and engineering. As cited by NYU's President Sexton, consolidating with Polytechnic University also created novel interdisciplinary prospects for knowledge and research, improving NYU's faculty and student capacity to pursue cutting-edge technology in their academic endeavors. The merger also strengthened NYU's presence in Brooklyn, which serves as a critical locale for the School of Engineering and developing programs like "the Center for Urban Science and Progress (CUSP), the Media and Games Network (MAGNET), and incubator sites to create many new exciting possibilities for research and learning across the University" (Lentz, 2014).

Increasing academic programs, curriculum subject bases, and faculty research areas and expertise typically require time and funding that may not be readily available for higher education institutions, even one as established as NYU. Overall, the merger provided NYU with the opportunity to offer the benefits and opportunities of a foremost research university "with an extensive basic science research agenda and great strength in the social sciences, humanities, and professions" and a substantial faculty base as well as an increased market for applications for admissions (Lentz, 2014).

Diversification

Diversification can be defined as a growth strategy used in mergers and acquisitions to support the merged company to grow outside of the organization's specific industry, or "a simultaneous departure from the present product line and the present market structure" (Ansoff, 1957, p. 114). An advancement of this type typically requires the company to create a new product produced for a target audience outside of their market while penetrating a new industry.

Not surprisingly, this process could be an arduous one, requiring in-depth market research, data analysis of customer needs, and a product development plan, as well as time. By pursuing a merger, these steps could be avoided almost entirely. Diversification can also be utilized to decrease the unpredictability of currency movement by reducing exposure to industry-specific risks. The merged company is often less susceptible to unplanned shifts in an industry because it now produces income in varied and potentially unrelated industries. As a result, continued product retail in other industries can offset the revenue loss in a single industry.

Examples include a company's interest to expand from one part of the country into other regions or an organization that operates on a national level but strives to tap the markets established in other countries (Hitt et al., 1997). Gaughan (2007) suggested that it is often faster and less financially risky for a company to expand geographically via a merger or acquisition than internal expansion. Gaughan stated, “This may be particularly true of international expansion, where many characteristics are needed to be successful in a new geographic market” (p. 136). Thus, in the end, diversification through mergers and acquisitions may ultimately be the fastest and lowest-risk external diversification strategy.

One example of such a venture in the private sector is the Fiat-Chrysler Corporation merger in 2014. Before the merger, Chrysler stood as the third-largest American car company, however after economic difficulties in 2008, this company continued in a downturn and ultimately had to seek a government bailout in fear of bankruptcy or dissolution (Bunkley, 2009). As a result, the Italian multinational car company Fiat merged with Chrysler to increase its market share and capital base within the United States (Cabigiosu et al., 2014), ultimately taking a 35% stake in Chrysler. This merger provided diversification for both companies in the United States and abroad, while also providing Chrysler with the opportunity to “use Fiat's technology

and vehicle platforms to build more fuel-efficient, small and midsize cars at its factories and sell them in North America … giving Chrysler access to distribution networks in other parts of the world, particularly Europe" (Bunkley, 2009).

An example of diversification within higher education is the merger between Augusta University and Georgia Health Sciences University. Although the institutions had distinct missions, the merger provided the consolidated institution with the opportunity to expand students' academic opportunities and strengthen institutional efficiency. The merger created a modern research institution that provided wide-ranging undergraduate and graduate degree programs and offered quality health education programs and research to meet the increasing needs of the state and Augusta regional area.

As cited by the University System of Georgia, the merger also advanced the mission to increase educational access in the region and allow "for growth of research efforts to spur economic development and facilitate knowledge transfer" (University System of Georgia, 2015a, p. 14). Augusta State University served as an institution concentrated on providing access to higher education to student populations who are first-generation or traditionally without the academic preparation or grades to enter a research university. As a result, the merger increased the diversity of students with access to a comprehensive range of undergraduate programs in liberal arts and professional fields and the academic preparation for occupations within a health-focused field.

Synergy

Synergy can be defined as the potential added value from combining two separate organizations (Giddy, n.d.). Synergy may be one of the most widely used and misused motivations for mergers and acquisitions. The most common synergies include cost, revenue, finance, and market synergies. Cost synergies are those focused on decreasing costs, both

administrative and overhead (Eliasson, 2011). Cost synergies are often related to economies of scale as resources and competencies that do not use their total capacity (100 percent) or do not work effectively. As a result, these resources can be better utilized if combined with new, additional, or related activities that extend the usage thanks to decreased average costs (Johnson et al., 2008). Revenue synergies are defined as synergies focused on increasing organizational revenue.

These synergies are often related to economies of scope, such as extensions of customers, products, cross-selling, or bundling (Eliasson, 2011). Financial synergies are more well-defined as synergies associated with decreased expenditures of resources via reduced risks, improved capital, and increased financial limitations (Gaughan, 2007). Finally, market synergies can be defined as synergies focused on attaining higher alignment achieved by improved negotiations with merchants and consumers (Eliasson, 2011). Overall, synergy sources provide organizations with the opportunity to increase debt capacity and stabilize earnings and cash flows. As a result, organizations can borrow more than they were eligible as individual entities, thus, generating a tax benefit for the consolidated organization. The resulting tax benefit may be increased cash flows or decreased capital cost for the consolidated merger. “Tax benefits can arise either from the acquisition taking advantage of tax laws or from the use of net operating losses to shelter income” (Giddy, n.d.).

The cruise industry provides a specific example of several synergy-based mergers within the private sector. The 1989 merger of Sitmar Cruises and Princess Cruises and the 1994 merger between Radisson Diamond Cruises and Seven Seas Cruises provided an expanded product line of more ships, beds, and itineraries with lower per-bed costs (Gaughan, 2007, p. 127). Additionally, due to the existence of operational, financial, revenue, and economies of scale

synergies, this type of merger provided the combined cruise lines with the ability to service a more significant number of cruise ships and itineraries and decrease the necessity of sustaining the same size organizational facilities and sales forces. Furthermore, the merger provided the consolidated cruise line with the chance to secure projected revenues with less than the original companies' previous cost structure. Such an aligned merger strategy makes marketing expenditures more cost-effective and increases consumer reach on a national or international level (i.e., television advertising campaigns). "By buying Sitmar, which offered similar cruises and was of similar size, Princess was better able to market its 'Love Boat' theme nationally while the television show that featured their ships was quite popular" (Gaughan, 2007, p. 128). The cruise line could then arrange a rapid expansion while building new ships and selling a number of the older Sitmar ships, ultimately taking advantage of a unique but critical window of opportunity.

The Gainesville State College and North Georgia College & State University merger is an excellent example of a synergistic merger within higher education. The merger was intended to achieve cost, revenue, and market synergy to create an institution of approximately 15,000 students. The consolidated institution's mission was to meet students' higher education needs in the northeast Georgia region by building on the pre-established base of collaboration and partnership between the two institutions through programs offered in Cumming and Gainesville, Georgia. As stated by the University System of Georgia representatives, "through economies of scale, there is the capacity for needed higher education enterprise professionals with appropriate expertise and experience levels" (University System of Georgia, 2015b, p. 6). In addition, the consolidation of the two institutions (that share an overlapping geographic location) combined institutional resources to improve organizational responsiveness to local economic and municipal

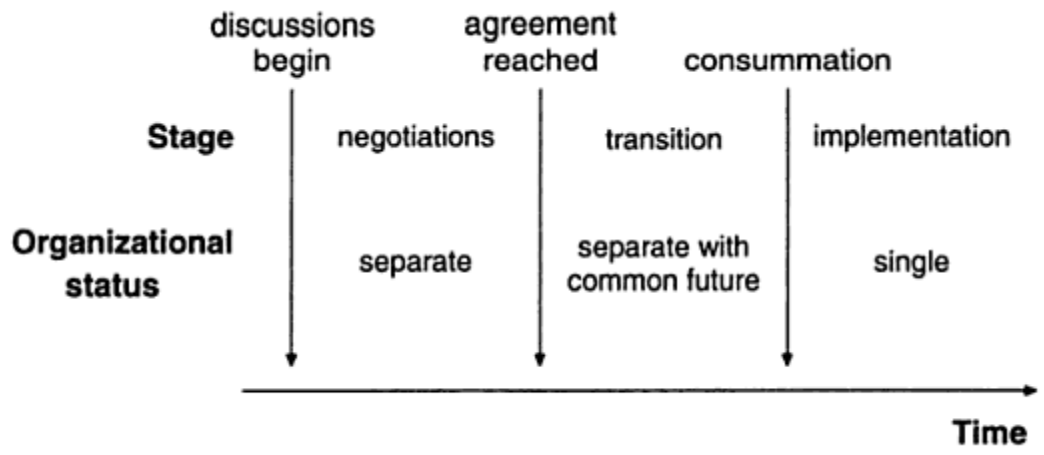
development needs. The merger similarly increased accessibility for students by offering a seamless matriculation system comprised of diverse academic programs, from associate degrees to graduate degrees. Finally, the post-merger organization provided additional capacity in Gainesville while increasing opportunities to hire faculty for specific programmatic needs.

Merger Issues

Mergers and acquisitions have definitively emerged as a preferred growth strategy within the business and public sectors. However, despite the increased usage, the success record of these transactions has been called into question. According to Christensen et al. (2011), the failure rate within the private sector is as high as 70-90%. Several authors have argued that adverse employee reactions to the transitions are behind the high proportion of merger and acquisition failures (i.e., Cartwright & Schoenberg, 2006; Davy et al., 1988; Levinson, 1970; Marks & Mirvis, 2001; Schuler & Jackson, 2001). An additional challenge is that regardless of industry, assimilating two or more organizations into one is challenging. Mergers require the unification of separate leadership teams, organizational structures, operational processes, and the alignment of employee skill sets, organizational cultures, and company goals. Rarely is alignment entirely or sufficiently achieved, nor is the estimation of how the merger will ultimately affect all parties involved, including employees.

While the ultimate goal of mergers is positive, and the initiation of the consolidation is done with the best of intentions, "there is widespread agreement that processes of merging are 'spiced' with small and large problems and conflicts" (Skodvin, 1999, p. 69). Based on the case studies and research on institutions that started and underwent the merging processes, an intended plan and orderly process should be followed, from the initial negotiations to the transition, and ultimate implementation, as displayed in the following figure.

Figure 5. *Stages in the Process of a Merger*



Note. From " Mergers in Higher Education: Lessons from Theory and Experience " by J. Eastman, & D. Lang, 2001, University of Toronto Press, Scholarly Publishing Division, page 77. Copyright 2001 by the University of Toronto Press.

Despite the highly debated theoretical considerations and outcomes from mergers, consolidations, or acquisitions, as well as the lack of practical guidance and no conclusive answers concerning the predictors of the success, these complex ventures have continuously increased across sectors (King et al., 2004), especially within higher education. As reinforced by the open systems theory, understanding all of the organization's inputs or resources, such as interpersonal relationships, moving parts, and processes, including revenue-generating and physical facilities, is critical to the merger process. Using the open systems lens, researchers can generate further research into the transformation process, outputs, and the resulting outcomes. Thus, insight into the "impact that the organization has on its human resources and the influence that leaders have on the culture of the organization" can be gained throughout the consolidation process (Maison, 2018, p. 26).

Organizations will likely continue to pursue these unions to remedy the challenges they may face. Thus, more research providing measurable quantitative outcomes and impacts must be

conducted to produce comprehensive reports of merger outcomes. These reports could increase the availability of robust data for managers to evaluate before considering a merger.

Impact on Human Resources & Turnover

Private Sector

The impact of a merger or acquisition can affect the employees of both companies. Often, the complications of combining two separate organizations with distinctive means of operation are undervalued. A variety of factors are frequently associated with mergers and acquisitions, with at least half of these being directly related to employees and management difficulties. These issues include employees' demotivation, the departure of key persons, and a significant decrease in office morale (Whittle, 2002, p. 5). However, instead of measuring the impact of mergers on the company's human capital, most efforts appear to focus on the organization as a whole. Often, employees on either side of the merger feel that "doing the deal" is the top priority for management. As a result, little attention is placed on employee assimilation and post-merger preparation, which results in delayed resolution, unclear responsibilities, and post-consolidation conflicts (Birkinshaw et al., 2000; Cording et al., 2008).

The loss of productivity is another common issue that may arise during a merger, consolidation, or acquisition. These productivity issues often result from depression and anxiety that influence employee inspiration, morale, and tolerance for issues or frustrations (Galosy, 1990). Some employees even experience "survivor sickness," including melancholy, stress, and fatigue (Bartlett, 1988). Cartwright and Cooper (1993) provided evidence that consolidation sometimes destroyed careers, disrupted daily business operations, and left employees fearing their job security. In addition, substantial evidence suggested that many employees have often formed an attachment to their positions, colleagues, work routines, job knowledge, performance, and career goals. Therefore, poorly managed post-merger impacts can result in many employees

suffering a prevailing sense of loss of identity and community when these aspects of their work were altered or destroyed by the amalgamation (Buono & Bowditch, 1989; Larsson & Finkelstein, 1999).

Although evidence has shown that employees in both organizations are typically affected, some results implied that the impact on office culture might differ based on the company's status as a 'parent company' or 'acquired company.' Georgiades and Georgiades (2014) found that the employees of acquired organizations often described experiencing some level of anger, worthlessness, inferiority, loss of autonomy and status, and feeling as if they had been "sold" as a commodity. Alternatively, some researchers suggested that the acquiring or parent company employees experienced feelings of pride and accomplishment. Unsurprisingly, the parent company employee responses accompanied the acquired company's staff members' feelings of insecurity, antagonism, and hostility (Georgiades & Georgiades, 2014). For example, employees often coped with the change by pushing themselves extremely hard to prove their value to the organization, with some even foregoing vacations or sick leave, even when needed (Cartwright & Cooper, 1993; Stahl & Voigt, 2002). Additionally, some employees became skeptical of management, decreased productivity, and displayed diminished commitment and erratic work attendance.

An example of a significant failure in the post-merger management of employees was the AOL-Time Warner merger, which was initially proposed as a revenue-enhancing and operating synergy merger. This merger was anticipated to allow Time Warner to increase its digital reach to unique online audiences. At the same time, AOL was purported to benefit by acquiring access to the cable systems of Time Warner. These resources should have provided AOL with the capacity to add bonus content and state-of-the-art broadband capability to its 27 million subscribers.

Despite the promise and anticipation, the merger ultimately resulted in a $99 billion net loss in 2002. These companies never accomplished organizational synergy and suffered a tumultuous relationship, resulting in a significant monetary loss across the board (Harrington, 2017).

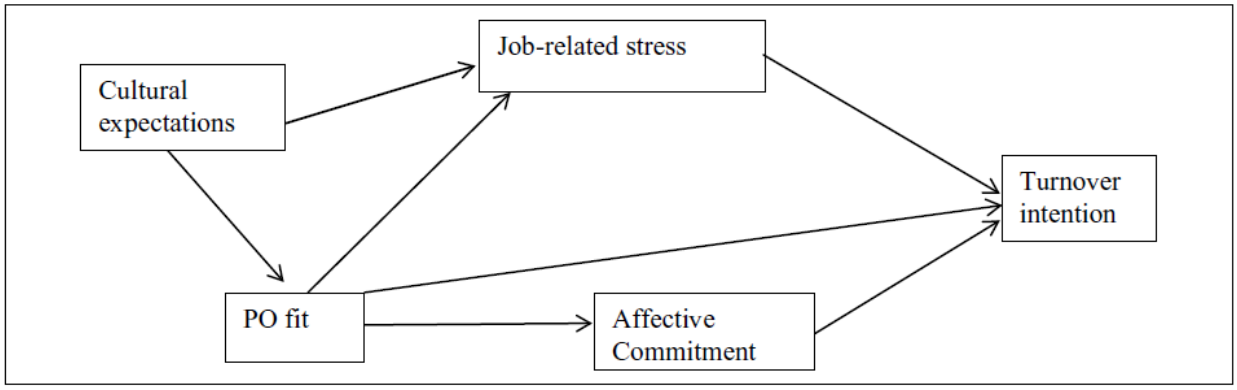
Due to the disparity in the organizational cultures and employee support, the AOL-Time Warner merger failed. Before the merger, Jerry Levin, the CEO of Time Warner, and Steve Case, the AOL CEO, were not aligned in vision, planning, and outlook. Levin and Case disagreed on issues that included which organizational structure was most appropriate for the merged entity, the leaders who would pilot the merger process and ultimately run the company post-merger (Klein, 2003). This led to subsequent disagreements, agitation, and frustration between both parties and their respective employees. Both companies were constrained by minimal staffing and focused on their current core business. Neither companies' leadership nor workforce truly understood the partnering company's operations, products, and service platforms.

Several top-level executors, including Levin and Case, ultimately resigned, leaving a leadership vacuum due to a lack of organizational synergy, a proliferation of impudence, and a widespread absence of cooperation. Ultimately, the merger's failure was attributed to the merger executors' inability to evaluate the two organizations' compatibility before the merger, resulting in the continued separation and disconnect between the companies over time. Due to the original merger architects' departure, all planning and discussion surrounding synergy and appropriate next steps for the merged company fell apart. After nearly a decade of sinking revenues and a tumultuous relationship, all consolidation efforts ceased, and the companies began to operate as separate entities again on December 10, 2009 (Harrington, 2017, p. 46).

Another potential issue that may arise from a merger or acquisition is employee turnover. Because of the social and emotional pressures discussed in the previous section, organizations

may experience increased employees who intend to depart from the consolidated company. Employee turnover, in turn, can have a direct effect on organizational performance. For example, organizational ventures such as mergers resulting in employee discord often decrease person-organization (PO) fit, which could influence staff members' decisions to stay or find new employment. Reinke and Evans (2014) found a direct correlation between PO fit, job-related stress, affective commitment, and turnover intention after consolidation (Figure 6).

Figure 6. *Correlation between PO Fit, Job-Related Stress, Affective Commitment, and Turnover Intention*



Note. From “Change Happens" by S. Reinke, & L. Evans, 2014, Public Personnel Management, p. 9. Copyright 2014 by SAGE Publications.

Turnover erodes the organization's productivity, and ultimately, competitive advantage to survive in both the new and original markets. Employee satisfaction, organizational morale, and retention are critical to an organization's success and survival regardless of a merger due to the necessity to preserve “key strategic resources and skills that form the foundation of value creation” (Carriquiry, 2018, p. 2).

An example of failing to correctly assess and plan organizational and workforce implications pre and post-merger is the Daimler-Chrysler Merger. Although the merger was intended as a partnership between a United States-based car company and a German car corporation, the union was advertised as a merger of equal organizations mutually benefitting

from the other's market stance and organizational competencies (Vlasic & Stertz, 2000). Even so, the merger ultimately led to an unsatisfactory conclusion, particularly for Chrysler. After the merger began, various setbacks ensued and continued until the merger finally failed in 2008. These setbacks included language barriers, lack of synergy, geographic separation, differing operation styles, employee turnover, and failure to provide promised support. An example of a lack of deliverables was that Chrysler had planned to use Daimler car parts, components, and even vehicle architecture to reduce production costs for future cars. Unfortunately, problems arose when Daimler's Mercedes-Benz luxury division was disinclined to share the components. "In the end, all Chrysler got were some steering and suspension components, a transmission and a diesel engine, and some purchasing deals" (Mateja, 2007). In addition, a lack of synergy and significant operational differences between the two organizations and the location and cultural differences led to significant staffing issues.

In two years, all of the top American executives within Chrysler had retired, resigned, or were fired, and were replaced by German employees. Badrtalei and Bates (2007) shared in a case study that the morale among the American employees was extremely low due to historical sentiments, anxiety, and other emotions; they cited a joke that circulated among the Americans, "How do you pronounce Daimler Chrysler? Daimler – the Chrysler is silent" (p. 305). Additionally, economic instability, internally flawed decision-making processes executed under the new administration, and internal culture clashes amongst staff, compounded by the highly competitive supply of new models by other manufacturers, led to a decline in productivity and plummeting stock prices (Feast, 2003).

Higher Education

Higher education institutions' leadership, faculty, and staff are also not immune to a

merger's effects. The merger between the Royal Welsh College of Music and Drama (RWCMD) and the University of Glamorgan serves as an example. In a case study, Drowley et al. (2013) interviewed leaders, faculty, and staff members regarding the effects of the merger. Many cited that instead of feeling like a conjoined, strengthened, and cohesive unit, they were essentially put aside. They lost their sense of belonging and asked the critical questions, 'Who are we as an organization?' and 'How do we do things around here?' Many RWCMD employees believed that the merger was a mutual consolidation; however, many, most notably administrative staff, experienced the feeling of having been absorbed rather than a merger of equals (Drowley et al., 2013, p. 206). Anxiety arose regarding the siloed discourse and decision-making among senior managers and governing bodies.

Additionally, the concentration of power amid senior executives left marginalized voices feeling silenced and unable to participate or offer alternative or complementary perspectives. Most notably, employees perceived separation between their levels and value. Members of academic staff or faculty were often viewed as expert voices. In contrast, the administrative staff members were viewed as the client's servants, with students being relegated to something more akin to client or apprentice professionals (Drowley et al., 2013, p. 211).

On the Rutgers University campus at Camden, the consolidated institution faculty and staff were left feeling the effects of the merger long after the consolidation was completed. Faculty and staff reported experiencing feelings of being "the neglected stepchild of the main campus in New Brunswick: unappreciated and underserved by its own administration" (Kelderman, 2012, p. 1). As a result, faculty and some staff contemplated job-fit and the benefits of leaving the consolidated institution. In addition to the continued confusion and chaos accompanying the lack of communication and outlines of the post-consolidation structure, the

expected salaries for members of the consolidated institution were left unclear. These employees were continually unable to obtain answers and were left wondering, “How do we know whether it will be better?” (Kelderman, 2012, p. 4).

Ultimately, the shifts and changes that may occur due to the merger and the importance and connection employees feel for their positions often play a significant role in how staff and faculty feel before and after a merger. Conflict often arises because of psychological tension that results from role conflict. As described by Veen (2013), “In a role conflict, there is a psychological tension which occurs when a person is engaged in multiple roles which are not compatible” (p. 13). For example, employees can experience increased pressures and uncertainty of new job demands assigned due to the merger. Administrative units may be eliminated, and more duties are reassigned to fewer support staff, leading to increased anxiety or feeling overwhelmed at the prospect of learning and immediately executing the new task within their academic or administrative department. Role ambiguity can be a significant source of stress that may result in lower work performance and motivation and higher job dissatisfaction (Seo & Hill, 2005).

Higher education institutions also face the obstacle of merging academic cultures and overcoming differences in institutional culture. Similar to organizations within the business sector, mismanagement or underestimating issues that may arise when merging two separate institutions can lead to severe conflict and controversy. The dominant analysis of negative aspects of mergers more commonly stems from news articles written about failed mergers based on the research available. More often than not, issues involving merging faculty, staff, students, and organizational cultures are not widely reported by higher education institutions. As many as three to seven years can pass before a merged institution develops a new culture. The time

needed to develop a distinct culture varies depending on the integration stage, cultural diversity, separation, and enculturation.

Harman (2002) provided clear insight into college mergers that affected faculty and staff negatively in a case study. The study cited the cause as oversight by administrative leadership regarding the importance of accounting and preparing for organizational culture and blending issues (Reinke & Evans, 2014). Harman (2002) reported the unsuccessful vertical merger of four separate higher education institutions located in Australia. The conclusions centered on the organizations' differences, with one research-focused and the other as a teaching-focused institution. These institutions had significantly differing missions, cultures, and perceptions of which organization was the most important or valued. The divergence in the organizational cultures, governance structures, and increasing perception and misconception of organizational inequality was never resolved, resulting in the merger's dissolution after four years (Harman, 2002).

Impact on Organizational Success

Private Sector

Mergers and acquisitions have presented an array of negative results on human resources and organizational performance. Performance may decrease due to "operational disruptions and the erosion of the organization's human and social capital resources, especially when those leaving are high performers" (Carriquiry, 2018, p. 2). In organizations, human capital is a vital part of the survival of a company. Having a strong workforce with the appropriate education, skills, training, and work ethic is essential. Maintaining an efficient workforce not only increases productivity but by direct correlation, profitability, and success. Therefore, the post-merger impact on employees must be efficiently managed because losing high performers, productivity, and processes can significantly weaken a company and lead to failure if issues are not addressed

and rectified.

As Hawks (2015) discussed, some researchers have identified evidence that suggested mergers and acquisitions decreased the value of the acquiring organization, while others found that they resulted in unpredictable market returns, which often reflect the confidence investors have in the merger. Nahavandi and Malekzadeh (1993) reported that regardless of the increasing occurrence and popularity of mergers and acquisitions, approximately 80% of the consolidations do not achieve their financial and organizational goals. Bruner (2002) established that 70-80% of mergers and acquisitions do not generate substantial value above the yearly investment rate. Cornnell (2010) reported that 40 to 50% of mergers and acquisitions are failures in the United States alone. Furthermore, 34% had lower sale rates than before the consolidation, 46% resulted in lower profits post-consolidation, and only 22% met all the administration's organizational objectives. As previously described for the merger between Sears and Kmart in 2005, which was intended to increase market share and sales, the merger ultimately failed. Thus, while intentions for the merger were good, the merger did not save the company or increase organizational success.

> Prior to Kmart's bankruptcy in 2002, Kmart had 2001 Capex of $1.385 billion and Sears had Capex of $1.126 billion, or $2.511 billion between the two of them, however now, post-merger, that number has dropped to $513 million, one-fifth of the 2001 amount. (Ring & Strong, 2017).

Higher Education

There is a lack of research tracking the quantitative organizational success of higher education institutions that have undergone consolidation, especially student enrollment, organizational operation, and financial success. However, Capuccinello and Bradley (2014), in

the one existing study to quantitatively assess the impacts of higher education mergers, provided fascinating insights into possible results based on a small sample size. These researchers investigated the impacts of college mergers in the United Kingdom on dropout rates. They found that mergers early in their sample period reduced dropout risk while later mergers experienced an increased risk.

Due to the status of early mergers as voluntary and mergers in the later period resulting from government pressures to improve cost-effectiveness, they concluded that involuntary mergers are most likely to adversely affect student figures and organizational success (Capuccinello & Bradley, 2014). Russell (2018) found that at the non-consolidated institutions, half of the students are white, 33% are black, 7% are Hispanic, 7% are Asian, and 3% are two or more races/other. In contrast, students at the consolidated institutions are more likely to be white (67%) and less likely to be Asian (3%), pointing to considerations for institutions seeking mergers and aiming to improve diversity.

Capuccinello and Bradley (2014) studied college mergers in England and showed that the results were mixed. Although the government had encouraged colleges to complete a merger process for cost efficiency and effectiveness, post-consolidation found that the overall risk of dropping out of college increased significantly. While these results draw attention to the significant considerations concerning the impact of retention, the outcomes also reflected the significance of the stage of a merger in process. Additionally, Capuccinello and Bradley cited the importance of the type of merger, voluntary or involuntary, as having different impacts that adversely affect student experiences and campus morale, leading to increased dropout or transfer rates.

Russell (2018) focused on the short-term impacts of consolidation on five more recent

mergers of a few public institutions within the University System of Georgia. The report, which contained some neutral results, stated that the merger had varying levels of effectiveness in increasing or improving retention rates and that, ultimately, over 10,000 first-time undergraduate students at consolidated institutions were affected. However, these results showed no significant change in retention or graduation rates overall. Russell's study also provided data regarding two of the state-level institutional mergers, which, according to the study, did not affect the retention rates.

In a study produced by The Pew Charitable Trust, Quinton (2017) reported that the merger between a state university and a struggling community college doubled the graduation rate for first-time, full-time students in two-year programs at the college from 6 to 12%. Despite this report, Quinton noted that this increase was due to higher staff and faculty support levels and tracking students who had weaker academic preparation. Overall, these small samples in these studies are not robust enough to make conclusions about merger decisions. The lack of clarity leads to further difficulty for institutions in completing these ventures without guidance.

Impact on Higher Education Mergers

Transformation Process

Mergers and acquisitions have significantly impacted the transformation process within higher education institutions. The transformation process requires the collaboration and coordination of the merger of organizations and inputs (resources) of both institutions into the outputs of one final system. The resources to be merged in higher education institutions include operations, functions, employees, classrooms, equipment, curriculum, land, buildings, materials, information, and policies. Therefore, the implications of mergers on the transformation process in a higher education institution should be well-understood before the consolidation begins. While there have not been many studies focusing on the transformation process of colleges and

universities that have consolidated, numerous studies have been published addressing public-policy implementations' successes and failures. An underlying theme that continues to arise is that policy implementation “has been conducted, is conducted, and will be conducted in highly complex environments” (Northam, 2013, p. 1). Indications have arisen that the number of complicated efforts is increasing. The complexity within those efforts is becoming very difficult to manage, while the behaviors of policy implementers in these challenging settings also contribute to the complexity (Northam, 2013, p. 1). Many researchers have been focused predominantly on government or other policy-oriented implementations; however, Northam’s (2013) study is notable for focusing on policy implementation, assumptions about the implementation process, and the ability to identify and test potential drivers that allow implementation success or failure.

Northam (2013) specifically focused on a technology project completed as a part of the 2012 consolidation efforts of the University System of Georgia (Northam, 2013). North Georgia College and State University and Gainesville State College, two neighboring universities, merged into a single institution. A significant part of the consolidation plan was to create the University Center, a satellite educational site beneficial to students and the greater surrounding community. The study included 13 participants and five stakeholders (joint university leadership, facility management, and university center management) who completed a behavioral assessment about themselves, their peers on the project, as well as a total project-team assessment. Additionally, 68 project documents addressing project agreements, projections, budget issues, status reports, and other project issues were included in the study (Northam, 2013, p. 99). Northam’s study combined two behavioral models, contextual interactive theory (CIT) and complex adaptive systems theory (CAS). These models were used as diagnostic tools to

"understand specific management behaviors, group behaviors, the sociological interaction behavior of policy-implementation decision-makers, and to identify and explain group behavior in a dynamic, unstable environment" (Northam, 2013, p. 142).

The results from Northam (2013) aligned with the literature in this current study by supporting the concept of distinct drivers or influences involved in a merger or, more specifically, implementing such a venture. According to the CIT–CAS joint model, the University Center infrastructure project experienced complex adaptive behaviors and displayed several initial cultural clashes before consolidation was announced. Additionally, there were variances (positive and negative) in project management, project leadership, fluctuating working conditions, and the loss of 1 of 2 CIOs before completing the project. The results also showed that the transformation and outcomes were most consistently affected by management style and project methodology. Evidence indicated that the effect of these two drivers increases as the implementation's complexity increases. The researcher demonstrated that:

- Implementation results are a function of the behavior of the complete set of implementation actors and their ability to perform.
- The implementation group's or project team's behavior is heavily influenced by a combination of complexity, management style, and the selected implementation method.
- As the complexity of the implementation environment increases, the probability of complex adaptive behavior by groups and individuals within the project teams also increases.

The combination of management style and applied methods influence the cohesion or dysfunction of group, team, or individual behaviors by

supporting or challenging changing adaptive team behavior. (Northam, 2013, p. 147–148)

Outcomes

Mergers and acquisitions have also been found to impact the outcomes within a merger of higher education institutions. As previously reported, outcomes can be regarded as the results of outputs or decisions. For example, in higher education institution consolidations, the decision to consolidate is the output, while consolidation results would be the outcome. Similarly, few studies exist that focus on the outcomes of colleges and universities that have consolidated. In this case, Northam's (2013) study again represents how outcomes are impacted and interpreted after a consolidation. An interesting result of the merger project cited in Northam's study was that respondents deemed the overall project a success despite the issues and obstacles faced. In general, project success and failure seemed to span from an amorphous to a structurally rigorous definition. "The first extreme is based simply on stakeholders' declaration that the project is successful or unsuccessful, and the second is based on specific criteria on the time, budget, and functionality of the deliverable" (Northam, 2013, p. 148). Results showed that both extremes were present in Northam's findings because all stakeholders involved declared success grounded on the fact that the University Center opened on time, despite specific concerns about the infrastructure's quality. The results also confirmed that the definition of implementation success or failure, even when highly subjective, is still significant to define the results of implementation and are ultimately determined by the actions taken by those who carry out the project (Northam, 2013, p. 150)

Overall, Northam's results were significant to the current research project because they provided critical insights into a complex and contentious merger process executed by Gainesville State College and North Georgia College and State University personnel during the merger of the

two institutions. The study served as an example for comparison or reference for institutions in the current study to affirm that project management's inconsistent and indecisive behavior may be a critical influencer of the transformation process. Additionally, the findings supported that a relationship between using a structured project method in a complex environment, such as a college or university, and the presence of adaptive behavior within the implementation project team will most likely be found (Northam, 2013, p. 151). Ultimately, the study reinforced that many implementation-research efforts have produced subjective results. Thus, there is a need for implementation research that is more deductive and less inductive and a need for research efforts "based on quantitative results that can be converted into usable analytical tools" for these studies to be relevant (Northam, 2013, p. 152).

Weaknesses in Merger Research

Overall, mergers, consolidations, and acquisitions are financial and operational agreements (or forced procuring processes) that unite organizations to form a new or enhanced entity. Businesses and organizations of all sizes and sectors utilize these processes to achieve a variety of outcomes. These similarities and differences suggest that while the motives and evaluations of mergers in the business and nonprofit sectors may vary in cause and process, administrators in higher education still have much to learn about these ventures, including concepts and ideologies produced by scholars focused on industry outcomes and overall experience of companies involved in merger-type processes within their respective fields. Unfortunately, despite the helpful insights and overview of the goals, causes, and outcomes of merger ventures, the overall existing research does not provide a robust quantitative and qualitative dataset to review for businesses, nonprofit, government agencies, or higher education administrators who may be considering pursuing this type of process in the future.

Most researchers studying merger and acquisition activities primarily focus on the

business sector and related strategies, motives, incentives, success, organizational profitability, and survival (Bauer & Matzler, 2013). Hawks (2015) determined that many researchers focused on the mergers within the business sector to study the most efficient ways to ascertain whether a merger achieved efficacious results. Specifically, they sought effective outcomes they could define and publish in unbiased, fiscal terms, mainly from the perspective of the purchasing or parent company in the merger (Hawks, 2015). Many reports have emphasized the reason for a merger or acquisition as being a way "to realize economies of scale, integrate up or down the supply chain, increase market share, or obtain some proprietary knowledge, those reasons are the means to an end of enhancing profitability" (Hawks, 2015, p. 19).

Researchers in higher education have predominantly focused on the behavioral and psychological facets of executing a consolidation strategy (Empson, 2001; van Knippenberg et al., 2002). For example, Hawks (2015) identified a case study conducted by Pietroburgo and Wernet (2010) evaluating three national bowling agencies' mergers. This report pinpointed themes purportedly relevant for nonprofit organizations, especially for higher education institutions, providing critical insight for leadership members involved in consolidation conversations (Hawks, 2015). The four themes were (a) the presence of a facilitator or catalyst and a center of unified individuals who function as the stimulus for change; (b) an adequate amount of time to accommodate the emotional and applied phases of merging; (c) provision of the opportunity for the administration to develop social capital or relationships among the employees and leaders involved in the merger; (d) the preservation of the social and cultural environments to carry over from the respective organizations to the newly merged company (Pietroburgo & Wernet, 2010). These themes were important in the specific case presented by Pietroburgo and Wernet (2010). However, these researchers' themes could be relevant in many

organizations, especially in higher education. They concluded that without adequate time, human capital, an assertive leader to lead the consolidation, and preparedness to permit stakeholders to retain some significant facets of their previous culture, the difficulty of supervising an already highly complex consolidation effort becomes more daunting (Hawks, 2015).

Additionally, as one study conducted by Milway et al. (2014) pointed out, many of these consolidation efforts often include emotionally charged issues despite the growing instances and backing for nonprofit mergers. These emotionally charged issues could include a lack of knowledge regarding when and how an organization should consider mergers and acquisitions, funding and due diligence planned for post-merger integration, and intermediaries present to essentially create an efficient organizational marketplace through which potential merger options can be explored. Additionally, they tend to view mergers reactively as a be-all and end-all strategy to lead the organization out of financial distress or leadership vacuums instead of proactively as an effective growth strategy. There is no clear and comprehensive report on measurable outcomes, which poses difficulties for organizations within the business sector and higher education institutions. There is no definitive way of planning out or executing a merger. Furthermore, most nonprofit consolidation is typically executed as a reactive strategy instead of one focused on growth.

Despite the various perspectives for research that the open systems theory provides, merger research framed through this lens is limited in availability and scope. While the theory includes the dependence of an organization's relationships with internal and external factors and change management, the theory cannot be used for pinpointing or laying out specific tasks, functions, or processes. Additionally, the systems theory does not encourage the researcher to review the organization's human resource aspects and merger equally. Doing so could result in

the production of qualitative-based research by default.

Trends in Higher Education

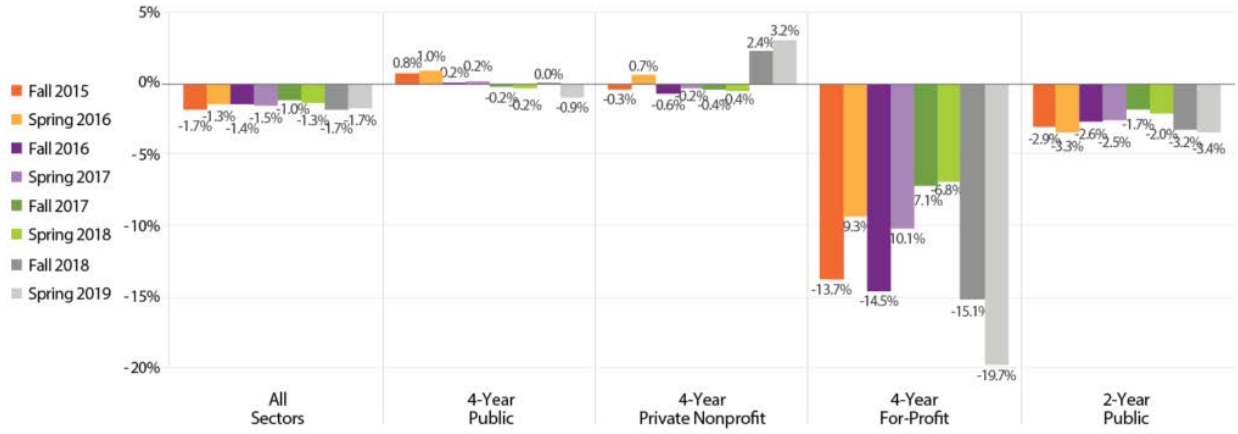
A critical component of the open system theory is the environment. When applied to higher education, the environment encompasses the institution and district's immediate geographic environment and the social, political, and economic environment in which the institution is operating. The environmental facet of the open systems model takes on added significance due to the substantial role that social, political, and economic factors are currently playing within the field on a larger scale today. Similar to the relationship that consolidation may have with admission, retention, graduation, and tuition, the relationship between environmental factors has yet to be rigorously researched. While this absence of research was a significant motivator for completing this study, recent changes and shifts in enrollment trends within higher education must be acknowledged due to their position as factors that should be at the forefront for consideration regarding institutional merger decisions.

Enrollment Rate Trends

One of the significant shifts that many colleges and universities, both those merged or still operating in a solitary state, must consider is the continued decline in college enrollment across the board. As many news stories and studies have continued to report, college and university enrollments have declined for the past eight years in the United States. The National Student Clearinghouse Research Center (NSC, 2019) reported that as of spring 2019, postsecondary enrollment had decreased overall by 1.7% from spring 2018, with enrollments increasing 3.2% at four-year private nonprofit institutions. However, the center cited that the increase was mostly due to the recent conversion of a large for-profit institution to nonprofit status. Overall, “enrollments decreased among four-year for-profit institutions (-19.7%), two-year public institutions (-3.4%), and four-year public institutions (-0.9%). Taken as a whole,

public sector enrollment (2-year and 4-year combined) declined by 1.9% this spring" (NSC, 2019, para. 1).

Figure 7. *Percent Change from Previous Year, Enrollment by Sector in Title IV, Degree-Granting Institutions*



Note. From "Current Term Enrollment – Spring 2019" by NSC Research Center, 2019. Copyright 2021 by National Student Clearinghouse.

While there are various theories about the cause of the decline in enrollment, colleges and universities have also considered the decline in birth rates in the United States from 2008 to 2011. As reported by the Centers for Disease Control in the 2017 and latest 2018 birth rates data, birth rates have still failed to rebound despite the economic recovery, with almost a decade of reduced fertility. The United States fertility rate, based on births per 1,000 women aged 15–44, declined by 2% between 2017 and 2018, while the fertility rates for non-Hispanic white, non-Hispanic black, and Hispanic women declined as well (Martin et al., 2019). Grawe (2019) reported that the effects of the financial crisis of 2008 could be the underlying cause for the reduction of fertility, with the number of children born between 2008 through 2011 falling precipitously. As reported in U.S. News & World Report (2018), "Fast forward 18 years to 2026, and we see that fewer kids are reaching college-going age", thus, predicting that college and university seeking populations will continue to decline, dropping by 15% by 2025 and by

another percentage point or two after that. To compound this issue, the number of students graduating from high school has declined since 2010. The Western Interstate Commission for Higher Education (WICHE) reported the likelihood of this rate accelerating in the United States and extending throughout the mid-2020s as a continued consequence of fertility declines that began during the 2008 financial crisis (Grawe, 2019).

Shifting Student Profiles

The landscape of students attending college has also begun to shift and is a vital factor that colleges and universities should consider. The Lumina Foundation (2019) cited the formerly traditional full-time/first-time college student ranging from 18- to 21-year-olds, more recently makes up about a third of the college population. About 37% of college students are now aged 25 years or older, with many college students working full or part-time to support themselves and their families as they progress through school (Lumina Foundation, 2019). Additionally, the economic backgrounds of enrolling students are changing and must be considered. Economic status significantly affects students' pursuit of college and success in school and work, especially when race and ethnicity are considered. First-generation students enrolling in post-secondary school has increased to about 46%, while 9% of those populations are first-generation immigrants (Lumina Foundation, 2019). Although enrollment percentages of students of color average about 42%, the Foundation reported (2019) that 45% of African American and American Indian students from low-income families delay starting college versus 32% of similar White students.

Overall, shifts in demographics may have had some positive results; however, institutions need to remember that enrolment is still lacking concerning students of color. The NCES (2018) reported that Hispanic undergraduate student enrollment more than doubled between 2000 and 2016, from 1.4 million to 3.2 million. Despite this fact, undergraduate enrollment for other racial

and ethnic groups began to decrease around 2010, with an enrollment of African American students decreasing from 2.7 million by 17% to 2.2 million students in 2016 (de Brey, Musu, McFarland, Wilkinson-Flicker, Diliberti, Zhang, Branstetter & Wang, 2019). Similarly, Native American and Alaska Native enrollment decreased by 28%, from 179,000 students to 129,000 students in 2016, while Pacific Islander students decreased by 18%, from 58,000 to 47,000 (de Brey et al., 2019). Students identifying as White also decreased enrollment by 17% from 10.9 million to 9.1 million students in 2016. Overall, the population of college-going students from this group still vastly outweighs those of other ethnic and racial groups. Conversely, enrollment of Asian students increased by 2% in 2016 from 1 million to 1.1 million (de Brey et al., 2019).

Another institutional population to consider are the Historically Black Colleges and Universities (HBCUs). These organizations play a significant role in higher education, especially for first-generation students, members of minority groups, and low-income students. Despite their importance in serving these populations across the United States, these institutions face obstacles from financial struggles, declining enrollments, and consistently decreasing resources. Often, consolidation is not feasible for HBCUs because consolidation with a predominately White institution may diminish the HBCU institutional value. In many cases, action is needed to help the HBCUs survive the increasingly competitive higher education landscape. Research in this area is needed to help generate answers (Hawks, 2015, p. 113). Overall, when mergers and consolidations are considered, student populations and institutional impact must be considered.

Affordability

College affordability remains considerably debated within the field, often serving as a significant obstacle for many students considering attending college. Although college degrees and other postsecondary credentials and certificates have never been more critical, they have also never been more expensive. As reported by the U.S. Department of Education (n.d.), tuition at

public four-year colleges, as well as for-profit institutions, has more than doubled over the past three decades, even after adjusting for inflation. From 1992 and 2012, the average loan amount owed by student borrowers who earned at least a bachelor's degree more than doubled to a total of nearly $27,000. Despite notable investments provided by the Obama Administration, the maximum Pell Grant award only covers around 30% of the total cost of four-year public college education, “the lowest proportion in history and less than half of what it covered in 1980” (U.S. Department of Education, n.d., para. 5). While the price of college has increased and, compared to 40 years ago, American paychecks are relatively larger, their purchasing power has not increased. DeSilver (2018) reported that the average wage earned today is equivalent to the purchasing power of 40 years ago, with improvements in wages generally flowing to the highest-paid tier of workers.

The existing and significant disconnect between the job market, workers' earnings, and paychecks has not only fueled many of the recent displays of activism regarding raising minimum wages in states and cities around higher education institutions and the nation abroad, but it has also become a platform in a few congressional campaigns (DeSilver, 2018). As a result, students who pursue college and their supportive families often feel economically excluded from the education they need for future success. They also perceive that the opportunity gap continues to exist. Although half of Americans from high-income families hold a bachelor's degree by age 25, only 1 in 10 people from low-income families attains the same education level. Moreover, regardless of income status, high-school graduates who enroll in college too often fail to finish; barely half will complete degrees in a reasonable time at four-year institutions, and at two-year schools, only about a third complete a degree (U.S. Department of Education, n.d.). When considering a merger, schools should consider these factors and

significant discrepancies in access and affordability.

Geopolitical Shifts and Program Availability

Geographic considerations, regional-based population enrollment, and program type, i.e., brick and mortar courses versus online classes, impact enrollment. A less discussed but relevant reality is that college attendance also varies considerably based on a student's place of residence. Variations in demographics within high school graduates and college-seeking students vary significantly by race, gender, socioeconomic status, city, and state. This variation in high school outcomes and college opportunity is vital when understanding college access and degree attainment barriers, especially when considering rural versus urban populations. This often-ignored consideration holds considerable influence over the political and social life of its residents.

In their report in *Higher Education Today*, Ruiz and Perna (2017) pointed out that college attainment is generally lower in rural areas than in cities. For example, they cited that roughly 25% of adults aged 25 to 64 years in rural or primarily rural counties held at least an associate degree. In comparison, 42% of the same age group in primarily urban areas held an associate degree, and about 33% of adults aged 25 to 64 years in predominantly urban areas have earned a bachelor’s degree or higher, as compared to the 18% of adults in primarily rural areas (Ruiz & Perna, 2017). Additionally, the demographics of high school students attending colleges differs broadly based on urban versus rural residence. For example, data provided by the NCES display the differences among high school graduates entering college (aged 18–24) based on race and ethnicity in states with relatively more rural areas versus states with more urban areas and populations (Table 1):

Table 1. *Percentage of 18- to 24-Year-Olds Enrolled in Degree-Granting Postsecondary Institutions, By Race/Ethnicity and State: 2018*

Locations	*Total*	*White*	*Black*	*Hispanic*	*Asian*	*Pacific Islander*	Native American/ *Alaska Native*	*Multi-racial*
USA	42.5	44.1	37.0	36.7	66.2	28.9	29.2	42.1
Nevada	30.3	32.7	24.0	26.6	52.7	‡	20.2	31.4
California	47.8	49.2	41.9	42.2	67.6	42.5	37.6	52.1
District of Columbia	51.3	63.3	33.3	59	88.2	‡	‡	‡
New York	49.5	51.3	42.0	43.8	68.0	‡	46.0	44.1
South Dakota	41.2	44.4	‡	28.3	‡	‡	21.8	‡
Wyoming	36.1	37.2	‡	33.2	‡	‡	‡	‡

Note. USA indicates totals for the United States. In addition, ‡ indicates reporting standards are not met, i.e., too few cases for a reliable estimate, or the coefficient of variation (CV) is 50% or greater (NCES, 2018).

The NCES (2018) reported a notable decrease or even non-existent enrollment percentage for some racial-ethnic groups, such as Black, Native American, or Alaskan Native, and multi-racial individuals in relatively more rural states, including Nevada and Wyoming, and South Dakota. In contrast, states with larger urban populations, such as the District of Columbia, New York, and California, had an increased presence of most racial and ethnic groups across the board. As an added layer, college or university attendance in rural areas is often less accessible due to a lack of geographic proximity to four-year institutions. Often described as “education deserts,” these areas offer limited postsecondary opportunities within commuting distance for students, which leaves prospective students with the burden of having to travel long distances to attend and incurring “additional financial and non-financial costs, such as travel time” (Ruiz & Perna, 2017).

In rural areas, familial obligations, strong community ties, and dependence on farming, manufacturing, and mining industries lead to rural students, regardless of age, opting to enroll in a local trade school or two-year institution instead of initially pursuing a bachelor's degree. Thus, the change could decrease enrollment for institutions considering mergers and absorbing two-year institutions into four-year institutions. The potential decrease in enrollment could be due to rural students encountering social, economic, and spatial barriers to enrollment in the larger, less affordable newly merged institutions. Furthermore, they might have lower preparation levels and are less ready for entrance exam standards for newly merged institutions than urban students. These significant obstacles to postsecondary access and completion are also more likely to deter enrollment because these students' families might value moving into the workforce and have lower expectations for their children to earn a four-year degree (Ruiz & Perna, 2017).

Open Systems Theory Analysis of Higher Education Consolidation

The opening section of this literature review included historical insight into mergers, consolidations, and acquisitions in the business and higher education fields. Additionally, the section provided sector-based definitions of mergers and consolidations, highlighting the motivations and environmental factors involved. Regarding higher education, the findings from the literature highlighted the most common driver of mergers within higher education as cost savings or increased programmatic offerings and access (Maison, 2018).

The second section of the literature review is a discussion of the open systems theory approach to the merger of higher education institutions. The open systems theory serves as a framework for the literature review due to its ability to frame research on institutional consolidation through the lens of organizational change and its effect on the institution's culture, financial, academic, and human capital aspects. The researcher used the theory in a holistic approach to consolidation and identified gaps in the literature about the components and

complexities connected to merging a multifaceted organization such as a university or college.

Through the lens of the five basic elements of the theory, which are inputs, transformation process, outputs, feedback, and the environment (Scott & Davis, 2007), the researcher provided insight into common facets of the system such as inputs, outputs, and the broader environmental aspect of the process. The findings support the lack of comprehensive quantitative data concerning financial inputs, encompassing this project's theory. Additionally, the literature review supports the researcher's theory regarding the absence of robust data concerning important supplementary facets of the system, such as the transformation process, outputs, outcomes, and feedback.

Although the research objective is not to provide a comprehensive guide for administrators to follow, the literature review results contain definitive insight into the information and data needed to provide measurable results (i.e., pre and post-merger metrics). Thus, these gaps point to the project's assumption of understanding the relationships between the process of consolidation, mergers, and acquisitions in higher education and the relationship of these outcomes with the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition of the resulting institution. Thus, the findings from two identified quantitative studies guided the researcher to analyze quantitative data concerning enrollment, retention, graduation, and tuition.

Overall, the review findings reinforced the marked increase in ventures such as consolidations, mergers, and consolidations among higher education institutions despite the lack of comprehensive and cohesive research and data revealing its effect on institutional operation. Merger success and impacts on revenue-generating practices, such as enrollment, retention,

graduation, and tuition, must be studied as shifts in these practices may directly affect institutional livelihood. As shown in the research, institutional consolidations may also restructure admission criteria, academic offerings, location, and departmental restructure that may directly affect the student population's makeup. As Spinelli (2018) described,

> Therefore, it is imperative that institutions considering a merger move from strength, not desperation. Consider the continuum of collaboration options. Look for complementary partners, not just similar ones. Engage faculty early on, and be as transparent as possible. Be prepared for accreditation challenges. Refocus recruitment efforts during the transition (para. 7).

The researcher analyzed, evaluated, and discussed the open systems theory regarding the four research questions in the remaining chapters.

Chapter III

METHODOLOGY

The purpose of this quantitative study is to explore existing research of mergers within higher education institutions, concentrating on the relationships that may exist between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. Chapter III includes an explanation of the research methodology used for this study. Specifically, this chapter includes the research design, population, sample, data collection procedures, data analysis, limitations, and delimitations. The primary research questions guiding this study are:

1. Does a relationship exist between consolidation and the number of full-time students enrolled in the fall at a post-secondary institution?
2. Does a relationship exist between consolidation and the rate of full-time students retained at a post-secondary institution?
3. Does a relationship exist between consolidation and the number of full-time students who graduated from a post-secondary institution within six years?
4. Does a relationship exist between consolidation and the full-time undergraduate cost of tuition at a post-secondary institution?

Research Design

This study can be defined as a quantitative reflective research design. Additionally, the study can be described as a secondary data analysis because the researcher utilized archived data from institutional reports between 1986 and 2019. Finally, the study can also be considered retrospective because the data are derived from several years.

The researcher incorporated one independent and four dependent variables. The

independent variable was college consolidation. In contrast, the study's dependent variables were the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition for schools "A" and "B" five years before and after consolidation. The researcher aimed to ascertain a relationship between the independent variable of college consolidation and the dependent variables of enrollment, retention, graduation, and tuition.

Participants

A verified comprehensive list of United States colleges and universities that have merged or consolidated was not available. As a result, through researching published information and article cross-referencing, the researcher ascertained that at least 239 institutions within the United States had undertaken a merger process resulting in around 119 consolidated institutions in the past decade. Based on this list, the 119 consolidated institutions that have emerged since 1986 served as the population for this study. The sample size was based on data available before and after consolidation resulting in 90 pre-consolidated institutions being selected for the study that paired and merged into 45 consolidated institutions. The institutions ' names are anonymous besides the institutional region and merger year; however, a school-based key divided by region and sector type was used to aid in reporting (Appendix I).

The sampling method used in the study was nonprobability or convenience sampling. This type of sampling involves selecting units based on factors other than random chance, such as convenience, prior experience, or the researcher's judgment (Lohr, 2020). Examples of non-probability samples are convenience, judgmental, quota, and snowball. Unlike probability sampling, in which participants are randomly selected and each has an equal chance of being chosen, the sample for this study is considered a convenience sample partly because the complete list of the population was unavailable. Instead, the researcher relied on data readily

available regarding college consolidation and enrollment, retention, graduation, and tuition. Additionally, because the researcher conducted a pilot study, utilizing a convenience sampling technique provided the researcher with an understanding of potential trends based on the currently available data. It also provided the support needed to focus on the subsequent analysis of the overall data available.

The higher education institutions included in the study were from regions across the United States. Two institutions from a public university system and five within the private sector were included from the Midwest. Next were three institutions from a public university system and eighteen institutions from the private sector in the Northeast. Three institutions in the private sector of the Southeast region, along with eight institutions from a public university system in that region. One institution from the public sector in the Southwest region. Finally, two institutions in the public sector and three institutions in the private sector in the West.

Data Analysis

As discussed in Chapters I and II, administrators within higher education are more frequently turning toward corporate business practices, such as mergers, consolidations, and acquisitions, to alleviate many of the issues they face despite the gap in research. Due to the significant lack of recent research, analysis, and data concerning the direct effects of consolidation on institutional processes, the researcher focused on analyzing revenue renting facets of enrollment, retention, graduation, and tuition reported for the 90 pre-consolidated institutions in the study.

The variables were divided into a pre-consolidation group (90 pre-consolidated institutions) and a post-consolidation group (45 consolidated institutions). The post-consolidation outcomes of both schools were evaluated to determine if there was a change in the dependent variables of the number of full-time students enrolled in the fall, the rate of full-time students

retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. For data points that occurred before the merger, the researcher initially found the sum of full-time students enrolled in the fall and found the sum of full-time students who graduated within six years. The researcher then found the average rate of full-time students retained and the average full-time undergraduate cost of tuition. Each pre-consolidation final value was then paired with the corresponding post-consolidation value. SPSS (Statistical Package for the Social Sciences) was used to create four histograms to establish the enrollment, retention, graduation, and tuition frequency distributions. SPSS was selected because it is a versatile statistical software that reduces the time and learning curve of utilizing statistical software while also providing many analysis types, data transformations, and output forms (Arkkelin, 2014). While the software is used for social science research, researchers in various fields, including education and business, often use it as well (Bala, 2016). Using SPSS, the researcher efficiently performed multifaceted data management processes and produced the charts, tabulated analyses, and descriptive statistics needed to answer this study's research questions.

Once the distribution of each data set had been established, SPSS was utilized to conduct a paired t-test. The paired t-test was used to determine the statistical significance of the difference between the sums and means for data sets with a normal distribution. Non-normality was potentially the case for the varied enrollment, retention, graduation, and tuition data sets, which are significantly impacted by the type and size of the schools (pre and post-consolidation); however, the enrollment, retention, graduation, and tuition data sets contained a normal distribution after the removal of outliers. As a result, the paired t-test was used to determine whether the sum of the dependent variable of enrollment and sum of the dependent variable of

graduation; as well as the mean of the dependent variable of retention and the mean of the dependent variable of tuition, are similar in the pre-consolidation and the post-consolidation groups.

The hypotheses are:

$H1_0$ - Consolidation has no effect on the number of full-time students enrolled in the fall at a post-secondary institution.

$H1_a$ - Consolidation has an effect on the number of full-time students enrolled in the fall at a post-secondary institution.

$H2_0$ - Consolidation has no effect on the annual rate of full-time students retained at a post-secondary institution.

$H2_a$ - Consolidation has an effect on the annual rate of full-time students retained at a post-secondary institution.

$H3_0$ - Consolidation has no effect on the number of full-time students who graduated within six years from a post-secondary institution.

$H3_a$ - Consolidation has an effect on the number of full-time students who graduated within six years from a post-secondary institution.

$H4_0$ - Consolidation has no effect on full-time undergraduate cost of tuition at a post-secondary institution.

$H4_a$ - Consolidation has an effect on full-time undergraduate cost of tuition at a post-secondary institution.

Data Collection

For this exploratory study, the researcher used document analysis as the data collection method. "Exploratory research is the process of investigating a problem that has not been studied or thoroughly investigated in the past" (Formplus Blog, 2020). An exploratory type of research is

usually conducted to provide a researcher with the opportunity to understand the existing problem better, even though the findings may not lead to conclusive results.

Data were collected from state-based and institution-based education progress reports, archived information from data sources such as archive.org that captures archived web data that is no longer available on the general web. Additionally, the researcher used the NCES data search tools such as the College Navigator and the institutional report database available on the IPEDS website. The researcher began the data collection process by accessing documentation gleaned during a previous research study and identifying additional information that may be needed. Next, institutional reports containing numerical enrollment, retention, graduation, and tuition data were reviewed and categorized so that the necessary quantitative data for the histogram and paired t-test were entered into an excel document. The excel document contained institutional information categorized by:

- Unique ID
- Region
- State
- Merger Date
- Merger Type
- Institution Type
- School Name
- Group
- Period
- Pre/Post Merger Status
- Enrollment (By Number of Students Enrolled, Gender, and Race)

- Retention (By Number of Students Retained)
- Gradation (By Number of Students Graduated)
- Tuition (By Undergraduate Full-time Cost of Tuition)

Utilizing this format provided the researcher with the opportunity to ensure data could be synthesized correctly in SPSS and readily converted into a pivot table for graph and table illustrations of the data and results.

Limitations

There were four primary limitations to this study. First, the principal data source was the institutional data collected from the 45 consolidated (90 pre-consolidated) institutions in the IPEDS government database. As a result, data collection methods proved tedious as several of the study's institutions did not readily have data available. As a result, the researcher relied on the data available on the website.

As an additional complication, the researcher was limited to accessing each institution's data points or information in the IPEDS reports. Data was more or less available based on the year and recording practices of IPEDS and the relevant institutions during that time. For example, retention rate data availability in the early 1980s was significantly less (or non-existent), while more robust retention data was available in 2000.

The scarce and fragmented literature and lack of applicable theoretical models for higher education institutions pursuing mergers, consolidations, and acquisitions also significantly limited the study. While there have been numerous mergers throughout the United States and the world, very few studies offer a comprehensive evolution and review of essential lessons and results of the decision-making and management before, during, and after these transformations. Even though numerous attempts have been made to create theoretical models to inform the decision-making behind mergers, there remains a significant gap in research, conclusions, and

guidance concerning mergers, consolidations, and acquisitions among higher education institutions.

Due to the limited nature of available data, the researcher could not fully assess the effects of complex practices such as mergers, acquisitions, and consolidation. These limited data made it difficult to understand the full contextual effect of this institutional phenomenon. The potential to define outcomes and successes depends on the type of objective (i.e., financial, academic, strategic, operational, and political) of the venture. The fact that "outcomes and results of consolidation in higher education can take years, even decades, to materialize" was a significant limiting factor (Hawks, 2015, p. 52). Until more abundant data and definitive research and evaluation of consolidation's financial and economic results are available, the study aimed to understand revenue-generating facets of consolidation better, even though it may not be comprehensive in scope, conclusive, or fully replicable.

Delimitations

There were two primary delimitations of this study. This exploratory study only included analysis of the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition reported for the 45 consolidated (90 pre-consolidated) institutions and the trend in percentage change. This study was further delimited by selecting institutions in the United States, including only two and four-year institutions and law schools that were consolidated, merged, or acquisitioned into a final four-year college, university, or law school. In the future, the researcher could extend the study to include other technical and community colleges. Because this research is exploratory, there is remaining space for future research concerning higher education mergers.

Summary

The study aimed to conduct a quantitative research approach to examine the relationship between the revenue-generating facets of pre and post-consolidation enrollment, retention, graduation, and tuition. The methodology of comparing the sum and mean of pre and post-consolidation data was used to support or reject the hypotheses. Although the objective of this research was not to provide a comprehensive guide for administrators to follow, the data analyzed and produced did provide the researcher (and future researchers or institutional administrators) with preliminary data and more definitive insight into additional data needed for measurable results (i.e., pre and post-merger metrics). The data analysis conducted also provided foundational data further informing the questions leading study: whether the process of consolidation, mergers, and acquisitions within higher education do ultimately have some form of relationship with the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition of the resulting institution, and the degree to which this relationship may be impacted by consolidation.

Based on the data collected, as described in Chapter III, an interpretation and conclusions of the data are provided in Chapter IV. The research results are presented to extend the knowledge presented in the literature review. Chapter V explains the study's results and extrapolates them to theory, research, policy, and practice. Finally, a recommendation for future study is provided.

Chapter IV

RESULTS

This chapter consists of the study's findings and the data analysis methodology utilized as described in Chapter III. The focus of the study was to ascertain the relationship between consolidation and the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition.

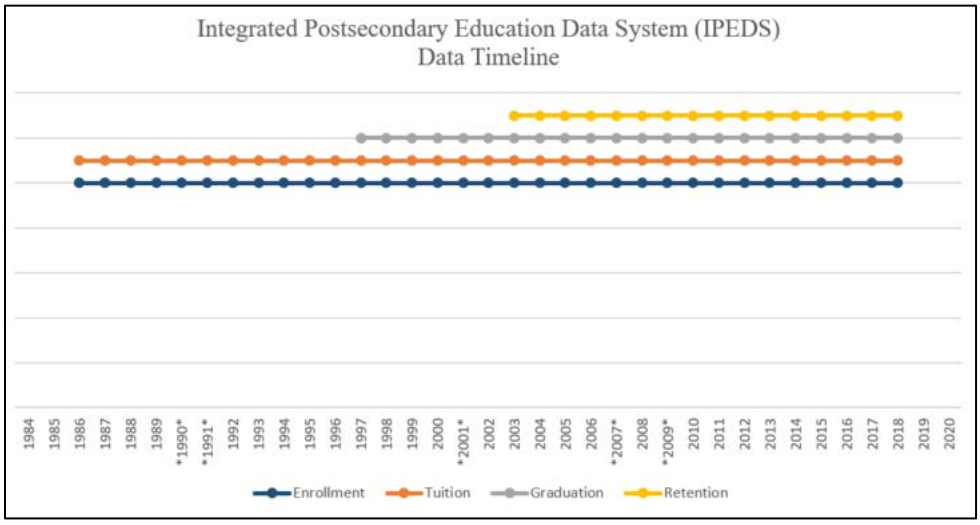
Institutional Data Availability

In support of identifying data for the study's primary research questions, the individual questions and their accompanying responses were grouped into four categories: enrollment, retention, graduation, and tuition. Institutional data were collected from the Department of Education's IPEDS. After extending outreach to numerous Offices of Institutional Research and a thorough review of data housed within institutional-based websites, the researcher decided to access IPEDS as the sole source to maintain consistency in data reporting and obtain access to a more comprehensive scope of annual fall reports ranging from the year 1986 to 2019. The reports accessed from the IPEDS website included data sets of the number of full-time students enrolled in the fall, the percentage of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition for the 45 consolidated (90 pre-consolidated) institutions included in this study.

After the assembly of the data, initial steps were taken to arrange and organize the data. Strategic evaluation and mapping of gaps and availability in the dataset were also conducted. First, a timeline of data reporting was established (i.e., year enrollment rates began to be tracked). As displayed in Figure 8, data for the number of full-time students enrolled in the fall and the full-time undergraduate cost of tuition began being reported in 1986, while data

regarding the number of full-time students who graduated within six years became available in 1997. Data regarding the percentage of full-time students retained from the prior year did not become available until 2003. Data before 1986 and after 2019 were not available (IPEDS cited the pandemic for the delay in 2020-2021 institutional data).

Figure 8. *IPEDS Data Availability Timeline*



Finally, an outline of significant United States events that may have affected the study's institutions was prepared (Table 2).

Table 2. *Significant United States Events*

Significant Event	Period
The Gulf War Recession	July 1990 to March 1991
1990's U.S. Economic Expansion	March 1991 to March 2001
The 9/11 Recession	March 2001 to November 2001
The Great Recession	December 2007 to June 2009
2000's U.S. Economic Expansion	June 2009 to February 2020

Merger Motivations

As reported in Chapter II, many motivations drive higher education institutions to consider a merger, with institutions often citing more than one motivator as an impetus. The institutions included within this study followed the same pattern, citing two or more reasons as an impetus. A frequency table was created for the merger motivations cited by the institutions included in this study. Within the 90 unconsolidated schools included in the study's sample, 32(36%) schools cited at least one motivation as economic necessity, while 78(87%) cited growth as another motivator. In comparison, 46(51%) of the institutions were motivated by synergy, while 37(41%) were motivated by improved efficiencies. Overall, growth served as the primary motivation for the institutions included in this study's population, as shown in Table 3.

Table 3. *Merger Motivations*

Merger Motivation	Frequency	Valid Percent
Growth	78	87%
Synergy	46	51%
Efficiencies	37	41%
Economic	32	36%

Data Analysis

A pre-test and post-test design was utilized to test for a normal distribution within the enrollment, retention, graduation, and enrollment data sets and was an assumption that must be met before utilizing a t-test on continuous data. A pre and post-consolidation mean was calculated for the retention and tuition datasets, and the sum was calculated for the enrolment and graduation data sets. The difference between the pre and post-consolidation sum and mean was established utilizing SPSS. A histogram was created to ensure a normal distribution of the

continuous variables so that the paired t-test could be used to test the statistical difference between the pre-test and post-test sum and mean. Finally, the researcher utilized a paired t-test to determine the statistical significance between the pre and post-consolidation sum and mean. The specific methodology utilized to calculate the pre and post-consolidation sum and means for the associated data set is discussed in detail in the following sections. Outliers identified within a particular data set were removed to decrease the minor skew displayed in the initial pre-test histograms.

Enrollment

Based on the objectives of the study, the following research question was addressed:

Research Question 1

1. Does a relationship exist between consolidation and the number of full-time students enrolled in the fall at a post-secondary institution?

$H1_0$ - Consolidation has no effect on the number of full-time students enrolled in the fall at a post-secondary institution.

$H1_a$ - Consolidation has an effect on the number of full-time students enrolled in the fall at a post-secondary institution.

Methodology

To prepare the enrollment data set for a pre and post-test analysis, the researcher calculated the sum of full-time students enrolled in the fall at the two original-unconsolidated schools to glean the pre-consolidation enrollment count. The number of full-time students enrolled in the fall after the merger was utilized as the post-consolidation enrollment number (Figure 9).

Figure 9. *Enrollment Data: Boxplots*

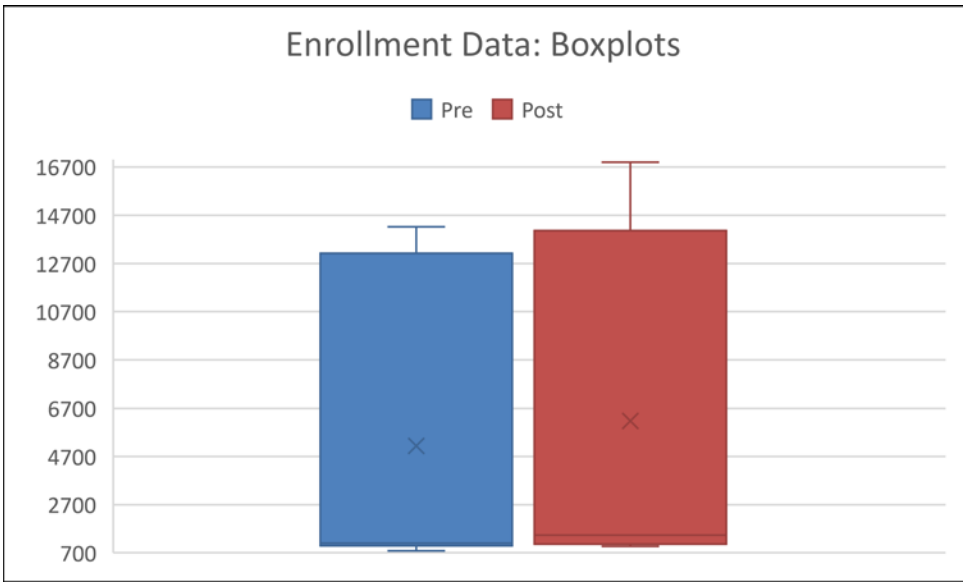
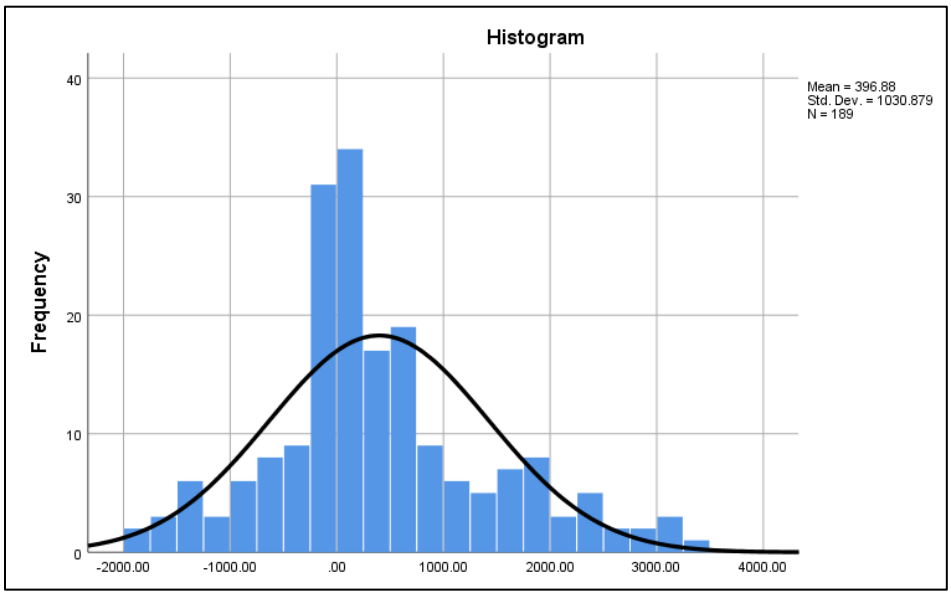


Figure 10 displays the histogram created to analyze the difference between the pre and post-consolidation enrollment counts. The differences were normally distributed, indicating that a paired t-test was appropriate for determining the statistical significance of the difference between the pre and post-consolidation enrollment counts.

Figure 10. *Enrollment Pre-Test Histogram*



Descriptive Statistics

Descriptive statistics were used to provide quantitative descriptions of the data concerning RQ1 (Table 4). The enrollment dataset included the pre-consolidation number of full-time students enrolled in the fall at the 86 pre-consolidated institutions compared to the post-consolidation number of full-time students enrolled in the fall at the final 43 consolidated institutions in SPSS.

Table 4. *Descriptive Enrollment Statistics*

	N	Range	Min	Max	*M*	*SE*	*SD*	*Var*
Pre	189	37625.00	17.00	37642.00	7601.85	589.15	8099.43	65600782.25
Post	189	39370.00	15.00	39385.00	7998.73	615.09	8456.11	71505806.83
Valid *N*	189							

A frequency table was created for the enrollment dataset. Of the 189 enrollment observations, 68(36%) reflected a decrease in the number of full-time students enrolled in the fall, with 121(64%) reflecting an increase in the number of full-time students enrolled in the fall (Table 5).

Table 5. *Enrollment Frequency Table*

Enrollment Observation	Frequency	Valid Percent
Increase	121	64%
Decrease	68	36%
Total	189	100%

Results of RQ1 Analysis

The statistical analysis showed a 5.2% increase between the pre and post-consolidation number of full-time students enrolled in the fall, implying that enrollment increased following consolidation (Table 6).

Table 6. *Enrollment Paired t-test Results*

Paired Samples Statistics

		M	*N*	*SD*	*SEM*
Pair 1	Pre-test	7601.8466	189	8099.43098	589.14691
	Post-test	7998.7302	189	8456.11062	615.09154

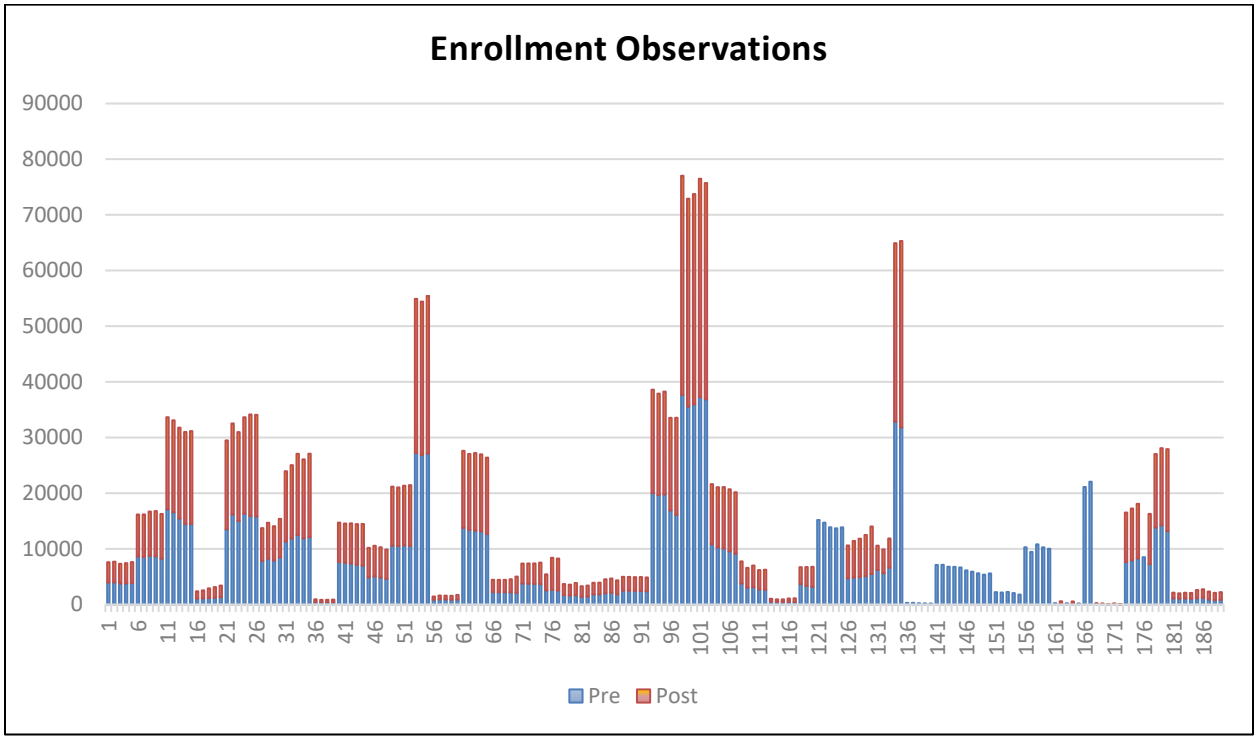
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference.				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre - Post	-396.88360	1030.87899	74.98541	-544.80452	-248.96267	**-5.293**	**188**	**0.000**

The results of the paired t-test indicate that consolidation elicited a mean increase of 397 full-time students enrolled in the fall, 95% CI [-544.805, -248.963] post-consolidation when

compared to pre-consolidation. Because $p < .001$, the conclusion is that there is a statistically significant difference between the means of the pre and post-consolidation groups. Consolidation led to a statistically significant increase in enrollment, $t\ (188) = 5.29$, $p < .001$. Therefore, the null hypothesis is rejected.

Figure 11. *Enrollment Observations*



The frequency data is displayed to allow the pre and post-frequencies in each column to be compared within the column (Figure 11). Notably, instances of an increase or decrease in enrollment are not specifically due to consolidation. The paired t-tests show a statistically significant relationship between consolidation and enrollment; however, several factors could influence enrollment numbers, including the location of the new consolidated school, change in curriculum, and change in institutional mission.

Retention

Based on the objectives of the study, the following research question was addressed:

Research Question 2

2. Does a relationship exist between consolidation and the percent of full-time students retained at a post-secondary institution?

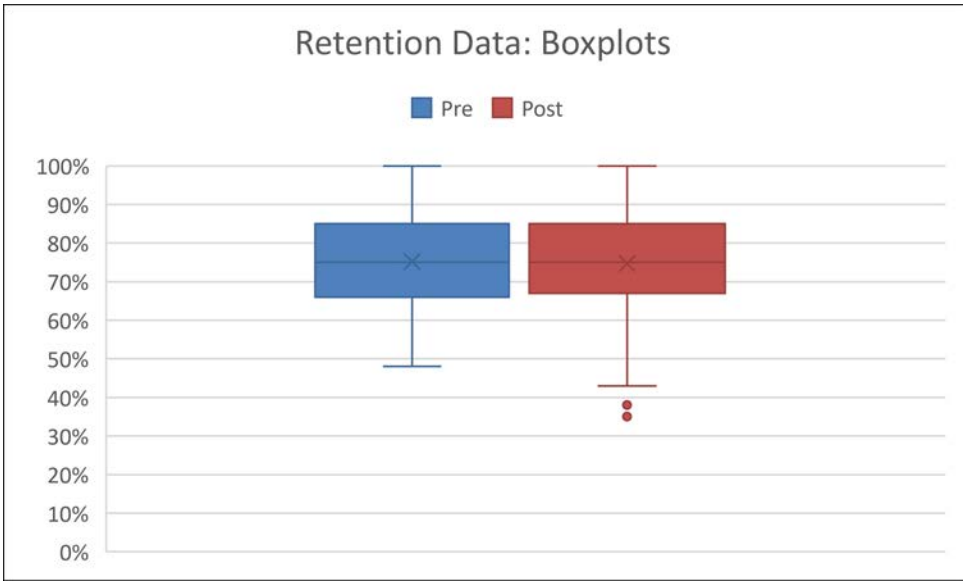
$H2_0$ - Consolidation has no effect on the annual percent of full-time students retained at a post-secondary institution.

$H2_a$ - Consolidation has an effect on the annual percent of full-time students retained at a post-secondary institution.

Methodology

A slightly different approach was taken to prepare the retention data set. First, the researcher calculated the average percentage of full-time students retained at the two original-unconsolidated schools to glean the pre-consolidation retention count for these data. The percentage of full-time students retained after the merger was utilized as the post-consolidation retention count (Figure 12).

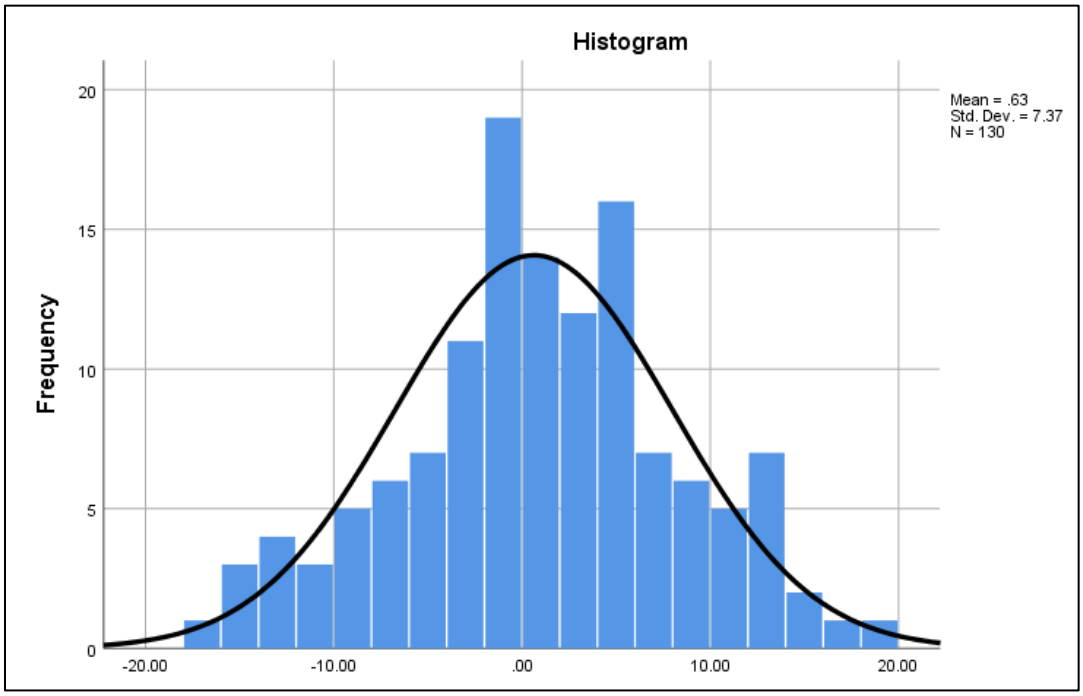
Figure 12. *Retention Data: Boxplots*



Note. The figure contains the original dataset before removing outliers to show the average percentage of full-time students retained pre and post-consolidation.

The differences between the pre and post-consolidation retention counts were normally distributed after removing the outliers (Figure 13), indicating that a paired t-test was appropriate for determining the statistical significance of the difference between the pre and post-consolidation percentage of full-time students retained.

Figure 13. *Retention Pre-Test Histogram*



Descriptive Statistics

Descriptive statistics were used to provide quantitative descriptions of the data concerning RQ2 (Table 7). The dataset included pre-consolidation retention data for the percentage of full-time students retained at the 62 pre-consolidated institutions and the post-consolidation percentage of full-time students retained. These data were then analyzed by comparing the final 31 consolidated institutions using SPSS.

Table 7. *Descriptive Retention Statistics*

	N	Range	Min	Max	*M*	*SD*	*Var*

Pre	130	52.00	48.00	100.00	74.55	12.46	155.35
Post	130	62.00	38.00	100.00	75.70	13.16	173.21
Valid N	130						

A frequency table was created for the retention dataset. Of the 130 observations of the percentage of full-time students retained, 59(45%) reflected a decrease in percentage retained, 63(49%) reflected an increase in the percentage retained. In contrast, 8(6%) reflected no change in the percentage of students retained (Table 8).

Table 8. *Retention Frequency Table*

Retention Observation	Frequency	Valid Percent
Increase	63	49%
Decrease	59	45%
No Change	8	6%
Total	130	100%

Results of RQ2 Analysis

The statistical analysis showed a minor increase between the pre and post-consolidation number of full-time students retained, implying that retention did not significantly increase following consolidation.

Table 9. *Retention Paired t-test Results*

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean

Pair 1	Pre-Test	74.5462	130	12.46397	1.09316
	Post-Test	75.0692	130	13.16101	1.15430

Paired *t*-test

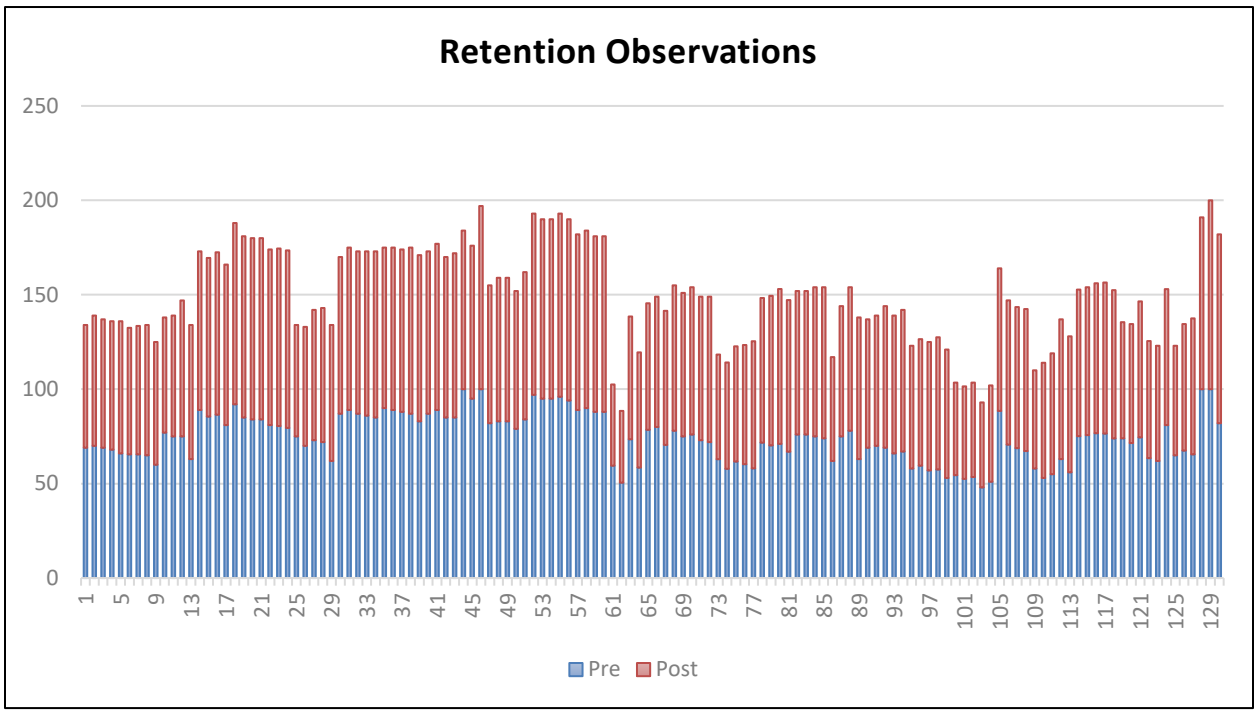
		Paired Differences							
					95% Confidence Interval of the Difference.				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	**t**	**df**	**Sig. (2-tailed)**
Pair 1	Pre - Post	-0.52308	7.37712	0.64702	-1.80321	0.75706	**-0.808**	**129**	**0.420**

The analysis showed that consolidation elicited a mean increase of 0.69% of full-time students retained, 95% CI [-1.803210.75706] post-consolidation when compared to pre-consolidation. Because $p > .05$, there is no statistically significant difference between the means of the pre and post-consolidation groups. Consolidation did not lead to a statistically significant increase in retention, t (129) = 0.81, $p > .05$. Therefore, the null hypothesis is accepted.

While instances of a decreased percentage of full-time students retained are not unusual,

for these data, the percentage increases and decreases were relatively equal overall (Figure 14). Thus, the paired t-test revealed no statistically significant differences between pre and post-consolidation outcomes and did not provide evidence of a relationship between consolidation and retention. Despite this result, variation in the number of full-time students retained could result from the influences of other variables, such as a lack of student satisfaction in faculty or staff support and cost of attendance.

Figure 14. *Retention Observations*



Note. The figure displays the average retention sample value for each of the 130 frequencies.

Graduation

Based on the objectives of the study, the following research question was addressed:

Research Question 3

3. Does a relationship exist between consolidation and the number of full-time students who graduated within six years from a post-secondary institution?

$H3_0$ - Consolidation has no effect on the number of full-time students who graduated

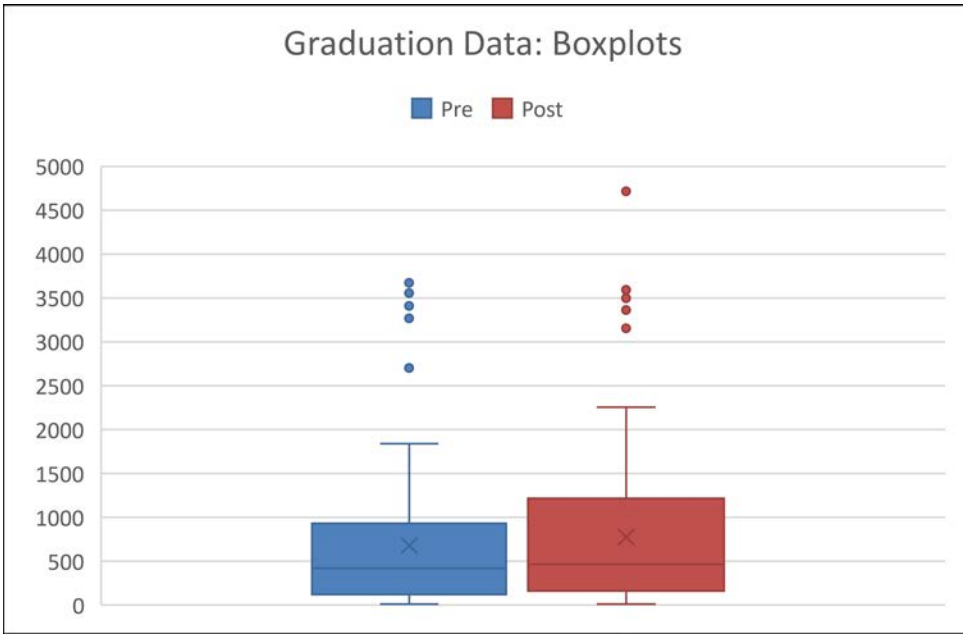
within six years from a post-secondary institution.

$H3_a$ - Consolidation has an effect on the number of full-time students who graduated within six years from a post-secondary institution.

Methodology

Similar to the enrollment data set, the researcher calculated the sum of the number of full-time students who graduated within six years at the two original, unconsolidated schools to determine the pre-consolidation graduation count. The actual number of full-time students who graduated within six years after the merger was utilized as the post-consolidation graduation number (Figure 15).

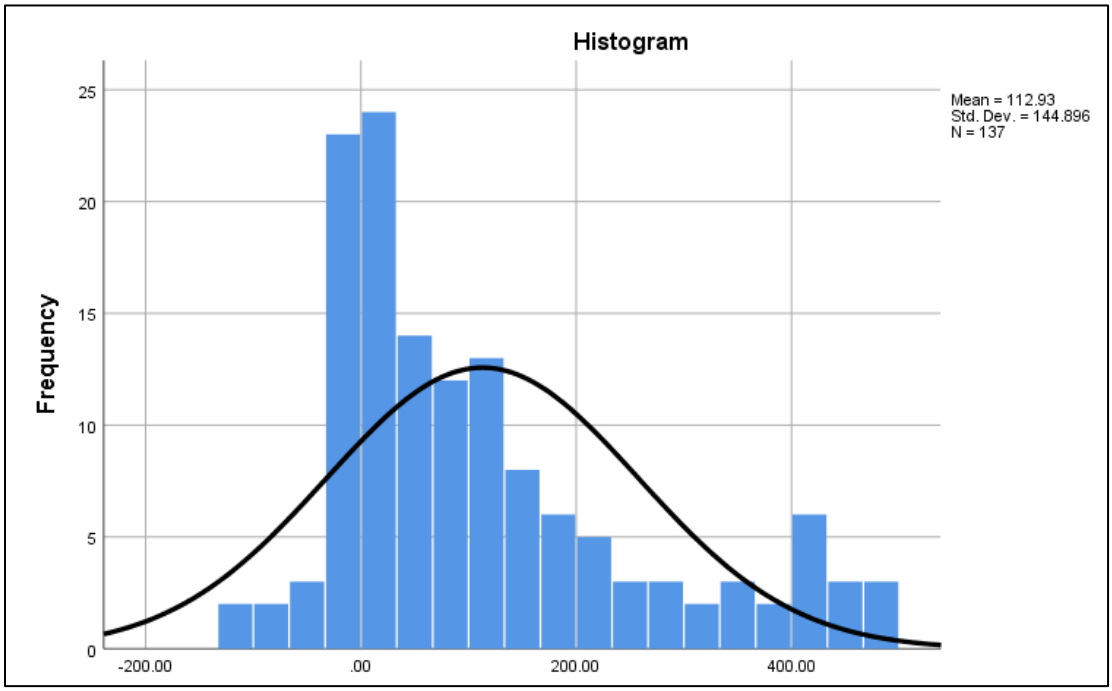
Figure 15. *Graduation Data: Boxplots*



Note. The figure displays the original dataset before the removal of the outliers.

The differences between means were normally distributed after removing the outliers (Figure 16), indicating that a paired t-test was appropriate for determining the statistical significance of the difference between the pre and post-consolidation graduation counts.

Figure 16. *Graduation Pre-Test Histogram*



Descriptive Statistics

Descriptive statistics were used to provide quantitative descriptions of the data concerning RQ3 (Table 10). The graduation dataset included the pre-consolidation number of full-time students who graduated within six years at the 64 pre-consolidated institutions. This was compared to the post-consolidation number of full-time students who graduated within six years at the final 32 consolidated institutions using SPSS.

Table 10. *Descriptive Graduation Statistics*

	N	Range	Min	Max	Sum	*M*	*SD*	*Var*
Pre	137	3659.00	12.00	3671.00	81066.00	591.72	735.94	541606.63
Post	137	3615.00	10.00	3625.00	96537.00	704.65	797.89	636621.72
Valid *N*	137							

A frequency table was created for the graduation dataset. Of the 137 observations of the percentage of students who graduated, 28(21%) reflected a decrease in the number graduated, 107(78%) reflected an increase in the number graduated. Overall, only 2(1%) reflected no change in the number of full-time students who graduated within six years (Table 11).

Table 11. *Graduation Frequency Table*

Graduation Observation	Frequency	Valid Percent
Increase	107	78%
Decrease	28	21%
No Change	2	1%
Total	137	100%

Results of RQ3 Analysis

The statistical analysis shows a 19.1% increase between the pre and post-consolidation full-time students who graduated within six years, implying that the number of graduating students increased following consolidation (Figure 12).

Table 12. *Graduation Paired t-test Results*

		M	*N*	*SD*	*SEM*
Pair 1	Pre-test	591.73	137	735.945	62.88
	Post-test	704.65	137	797.89	68.17

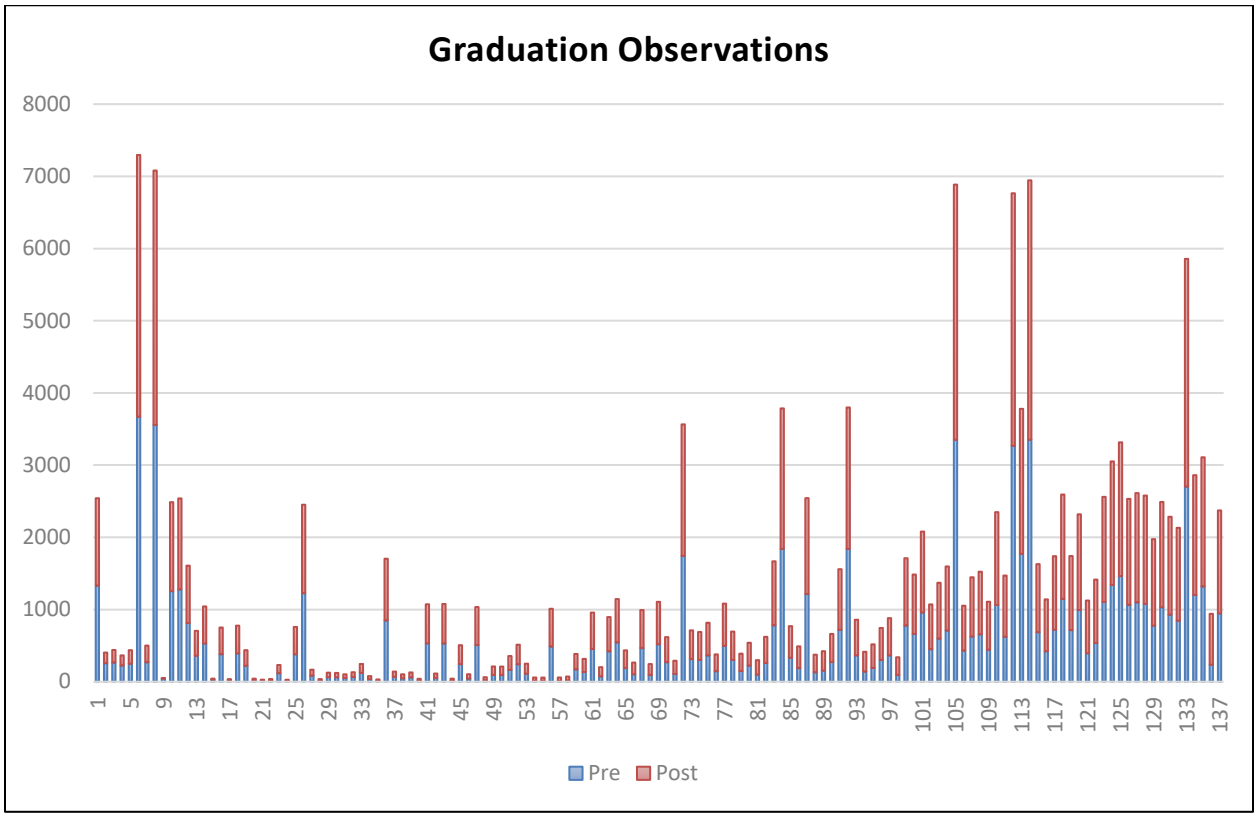
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference.				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre - Post	-112.92701	144.89650	12.37934	-137.40791	-88.44610	**-9.122**	**136**	**0.000**

The results of the paired t-test showed that consolidation prompted a mean increase of 113 full-time students who graduated within six years, 95% CI [-137.40791, -88.44610] post-consolidation when compared to pre-consolidation. As $p < .001$, a statistically significant difference exists between the means of the pre and post-consolidation groups. Consolidation elicited a statistically significant increase in full-time graduates, t (136) = 9.12, $p < .001$. Therefore, the null hypothesis is rejected.

While the paired t-test shows that a statistically significant relationship exists between consolidation and the number of full-time students graduating within six years, other factors in addition to consolidation could influence the number of students graduating. For example, a lack of academic support, an increased number of transfers, and academic or financial hurdles.

Figure 17. *Graduation Observations*



Note. The figure displays the average graduation sample value for each of the 137 frequencies.

Tuition

Based on the objectives of the study, the following research question was addressed:

Research Question 4

4. Does a relationship exist between consolidation and the full-time undergraduate cost of tuition at a post-secondary institution?

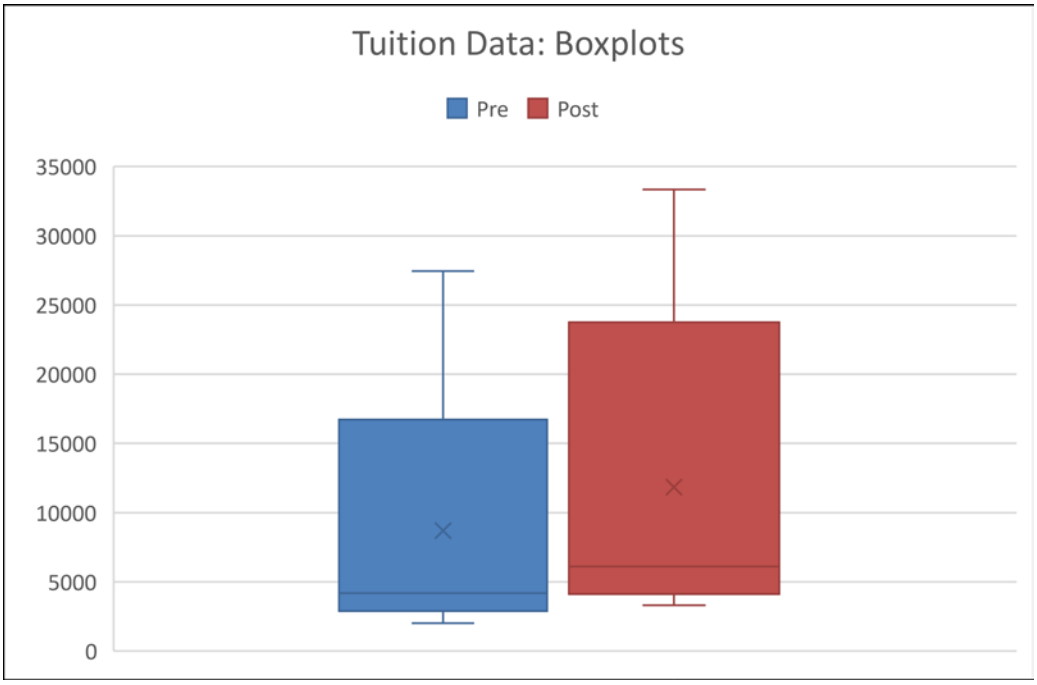
$H4_0$ - Consolidation has no effect on the full-time undergraduate cost of tuition at a post-secondary institution.

$H4_a$ - Consolidation has an effect on the full-time undergraduate cost of tuition at a post-secondary institution.

Methodology

The same approach utilized for the retention data set was utilized to analyze the tuition dataset. The researcher again calculated the average of the full-time undergraduate cost of tuition at the two original-unconsolidated schools to compute the pre-consolidation tuition total. The actual reported full-time undergraduate cost of tuition after the merger was utilized as the post-consolidation tuition total (Figure 18).

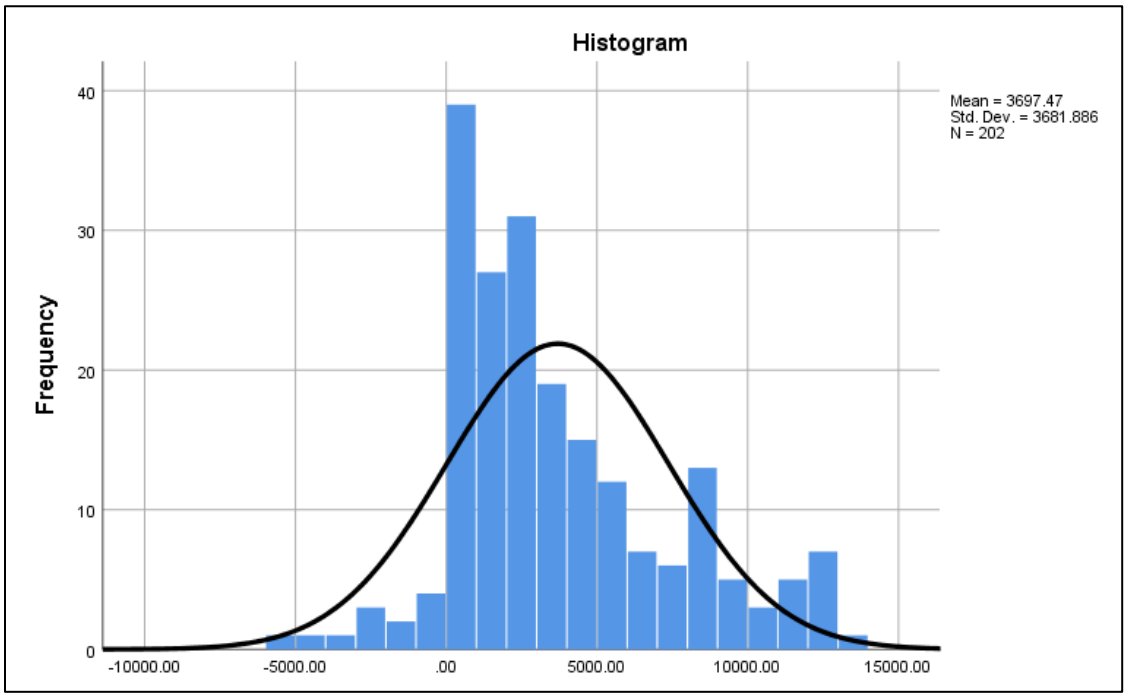
Figure 18. *Tuition Data: Boxplots*



Note. The chart contains the pre-test data.

The differences in pre and post-consolidation data were normally distributed, indicating that a paired t-test was appropriate for determining the statistical significance of the differences (Figure 19).

Figure 19. *Tuition Pre-Test Histogram*



Descriptive Statistics

Descriptive statistics were used to provide quantitative descriptions of the data concerning RQ4 (Table 13). The dataset included the pre-consolidation data from the full-time undergraduate cost of tuition at 88 pre-consolidated institutions compared to the post-consolidation full-time undergraduate cost of tuition at the final 44 consolidated institutions.

Table 13. *Descriptive Tuition Statistics*

	N	Range	Min	Max	Sum	*M*	*SD*	*Var*
Pre	202	50015.00	765.00	50780.00	2729621.00	13512.98	12432.84	154575464.90
Post	202	53755.00	1417.00	55172.00	3476496.00	17210.38	14438.26	208463417.40
Valid N	202							

A frequency table was created for the tuition dataset. Of the 202 observations of the full-time undergraduate cost of tuition, 12(6%) reflected a decrease in the full-time undergraduate cost of tuition, 185(92%) reflected an increase in tuition cost. In contrast, 5(2%) reflected no change in the full-time undergraduate cost of tuition (Table 14).

Table 14. *Tuition Frequency Table*

Tuition Observation	Frequency	Valid Percent
Increase	185	92%
Decrease	12	6%
No Change	5	2%
Total	202	100%

Results of RQ4 Analysis

The statistical analysis revealed a 27.4% increase between the pre and post-consolidation full-time undergraduate cost of tuition, implying that tuition increased following consolidation (Table 15).

Table 15. *Tuition Paired t-test Results*

		M	*N*	*SD*	*SEM*
Pair 1	Pre	13512.98	202	12432.84	874.7
	Post	17210.38	202	14438.26	1015.87

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference.				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre - Post	-3697.40099	3681.89989	259.05757	-4208.22017	-3186.58181	**-14.273**	**201**	**0.000**

Analysis results inferred that consolidation elicited a mean increase of $3,697.40 full-time undergraduate cost of tuition, 95% CI [-4208.22017, -3186.58181] post-consolidation when compared to pre-consolidation. The $p < .001$ indicates a statistically significant difference between the means of the pre and post-consolidation groups. Consolidation elicited a statistically significant increase in tuition, t (201) = 14.273, $p < .001$. Therefore, the null hypothesis is rejected.

Figure 20. *Tuition Observations*

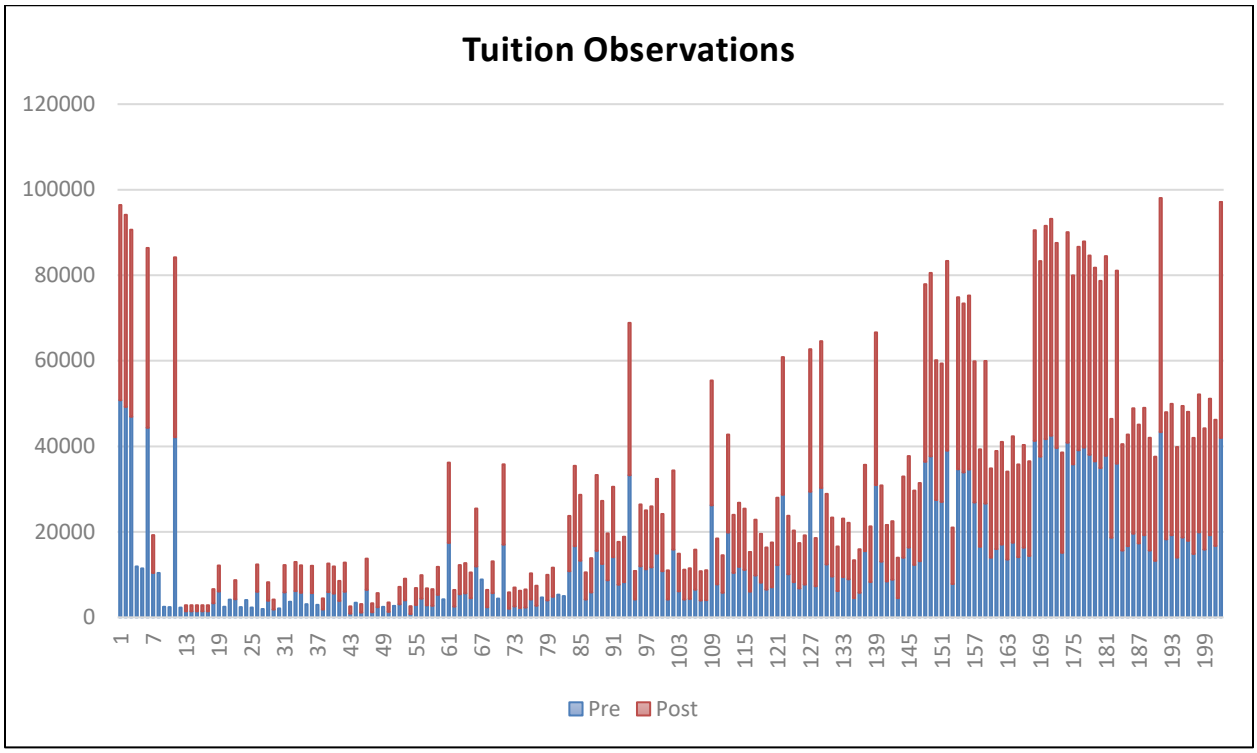


Figure 20 displays the average tuition sample value for each of the 202 frequencies. Similar to enrollment and graduation, the paired t-test shows that there is a statistically significant difference between consolidation and tuition. However, these results do not rule out other factors, including local, state, or federal budget cuts, economic downturn, and curriculum that could influence the cost of tuition.

Merger Outcomes

Frequency tables mapping the institutional unification types, merger types, and outcomes are included in Tables 16, 17, and 18 below. The inclusion of these data could support future studies regarding the level of achievement attained for distinct institutional inputs set by leadership before consolidation.

Unification Types and Merger Types

Many of the institutions included in the study described their unification as a

consolidation or merger; however, those terms were not always an accurate reflection of the unification process they undertook. For example, in 45 consolidated schools included in the sample, 34(76%) achieved unification through merger, 7(15%) achieved unification through acquisition, and 4(9%) achieved unification through consolidation (Table 16).

Table 16. *Institutional Unification Types*

Unification Types	Frequency	Valid Percent
Acquisition	7	15%
Consolidation	4	9%
Merger	34	76%
Total	45	100%

Additionally, 22(49%) of the mergers were cross-sector mergers, while 11(24%) could be classified as single-sector mergers. Eight (18%) of the remaining schools underwent a vertical merger, while 4(9%) underwent a horizontal merger (Table 17).

Table 17. *Merger Types*

Merger Types	Frequency	Valid Percent
Cross-Sector	22	49%
Single-Sector	11	24%
Vertical	8	18%
Horizontal	4	9%
Total	45	100%

Frequency Table 18 provides an overview of the merger outcomes of the 45 consolidated schools. Thirty-six (80%) of the mergers were completed; however, 9(20%) resulted in some

form of dissolution or closing of one or both schools involved in the unification. All the institutions included in Table 18 were included in the paired t-test analyses conducted in the study.

Table 18. *Merger Outcomes*

Merger Outcomes	Frequency	Valid Percent
Completed Merger	36	80%
Single School Closure	7	15%
Total School Closure	2	5%

Summary

Statistically significant differences were found using paired t-tests for differences between pre and post-consolidation means for the number of full-time students enrolled in the fall, full-time students who graduated within six years, and full-time undergraduate cost of tuition. Statistically significant differences were not found between pre and post-consolidation data for the percentage of full-time students retained. On average, the number of full-time students enrolled in the fall increased by 397 students and was statistically significant, presumably based on school size. Instances of an increase or decline in enrollment are not specifically due to consolidation. A variety of factors, internal and external, could have contributed to a decline in enrollment for those institutions included in the study (i.e., school location, change in curriculum, and change in institutional mission).

Conversely, the percentage of full-time students retained only increased 0.69% on average, which was not statistically significant. Some circumstances beyond the schools' control besides consolidation could lead to a decline in students returning post-consolidation. Reasons could include students' lack of satisfaction with faculty or staff support and school

unaffordability.

On average, the number of full-time students who graduated within six years increased by 113 students and was statistically significant (based on school size). Instances of a decline in the number of full-time students who graduated within six years do not appear as specifically due to consolidation, as there is no causal relationship. While the graduation rate measures how many students leave with a degree within four to six years, a decline may result from students not receiving the academic support they need to succeed, increased instances of transfers, academic or financial hurdles.

Finally, the average full-time undergraduate cost of tuition increased by 27% ($3,697.40) and was statistically significant. Tuition costs tend to increase annually but slightly at most institutions; however, the average increases in this study were significant. Increased tuition is not necessarily a result of consolidation. Other factors, such as deep reductions in state funding, campus budget cuts, economic downturn, and curriculum changes, may lead to increases. As interpreted in this study, however, the institutions that avoided a tuition increase or experienced a decrease may indicate success if their goal was to reduce costs, which seems likely based on reasons for mergers. In general, an overarching goal of mergers was to provide a way to save money by merging administrative and service offices, such as IT offices, admissions offices, academic departmental offices, Deans' offices, VP's offices, and Offices of the Presidents. Therefore, the full-time tuition analysis outcomes resulted in an unanticipated contradiction between the original expectations of a more stabilized or negligible increase of tuition post-consolidation versus the sharp tuition increase following consolidation displayed in the results (Table 14).

The merger motivation results in Table 3 also revealed an unexpected contradiction

between the commonly cited merger motivation of economic necessity (i.e., the university system in the southeast region included in the study) versus the final ranking of economic necessity as the fourth and weakest motivation overall. Additionally, not all the mergers resulted in a final consolidated institution that remained open, despite the stakeholders' best efforts. Of the 45 consolidated schools included in the study, 7(15%) of the consolidations ultimately resulted in a partial closure, and 2(5%) resulted in a complete school closure or dissolution.

Overall, the study conclusions supported the notion that a relationship exists between consolidation and some of the more significant revenue-generating processes utilized by higher education institutions, more specifically the number of full-time students enrolled in the fall, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. Chapter V is a discussion of the practical significance of the study results, further exploring significant contradictions between the literature and the results of the analysis, such as the low reporting of economic necessity as the primary merger motivation and the sharp increase in full-time tuition costs. Chapter V also contains a further interpretation of the meaning of the results, linking the findings to theory, research, policy, and practice, concluding with recommendations for future study.

Chapter V

CONCLUSION

Higher education institutions across the United States are continually facing an uncertain future as student populations shift, financial pressures mount, and skepticism rises about the value of higher education (Seltzer, 2018). As discussed in this study, college administrators are rapidly turning toward corporate business practices, such as mergers, consolidations, and acquisitions, to alleviate many of the institutional and political issues they face. Leaders are repeatedly undertaking merger processes without the existence of significant and comprehensive research. They often begin these ventures without relevant information to inform their consolidation efforts and provide a realistic evaluation of probable outcomes. This study was designed to examine the often unexplored quantitative facets and complexities of merging higher education institutions (Hawks, 2015).

Purpose

The purpose of this quantitative multiple case study was to explore the published processes and procedures involved in institutional consolidations in higher education, why they occur, and the resulting institution's pre and post-consolidation enrollment, retention, graduation, and tuition data. As a result, the research questions that guided this study were focused on the motivation each institution had for facilitating the consolidation; the relationships that may exist between the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. The study also focused on the post-consolidation results despite the sparse presence of literature, models, and documentation detailing the components and results of such an undertaking.

Discussion of the Results

The primary research questions guiding this study were:

1. Does a relationship exist between consolidation and the number of full-time students enrolled in the fall at a post-secondary institution?

2. Does a relationship exist between consolidation and the rate of full-time students retained at a post-secondary institution?

3. Does a relationship exist between consolidation and the number of full-time students who graduated within six years from a post-secondary institution?

4. Does a relationship exist between consolidation and the full-time undergraduate cost of tuition at a post-secondary institution?

Enrollment

The enrollment dataset included the pre-consolidation number of full-time students enrolled in the fall at 86 of the pre-consolidated institutions included in the study. These data were compared to the post-consolidation number of full-time students enrolled in the fall at the final 43 consolidated institutions. Of the 189 enrollment observations, 68(36%) reflected a decrease in the number of full-time students enrolled in the fall, with 121(64%) reflecting an increase in the number of full-time students enrolled in the fall (Table 5).

Table 5. *Enrollment Frequency Table*

Enrollment Observation	Frequency	Valid Percent
Increase	121	64%
Decrease	68	36%
Total	189	100%

Overall, there was a 397(5.2%) increase in the number of full-time students enrolled in the

fall, 95% CI [-544.805, -248.963] post-consolidation compared to pre-consolidation. As $p < .001$, consolidation likely contributed to a statistically significant increase in enrollment, $t\ (188) = 5.29$, $p < .001$. Therefore, the null hypothesis was rejected.

Despite the statistically significant results concerning enrollment, the practical significance, also known as the magnitude of the difference or the effect size, was not unlikely impactful. Results are practically significant when the difference is large enough to be meaningful in real life. In the scope of this study, an average increase of about 400 full-time students enrolled in the fall may be impactful for smaller colleges; however, this amount is not a significant or practical increase for larger colleges and universities. Suppose the goal of the post-consolidated institutions included within the study was to achieve a significant increase in enrollment, especially for schools experiencing a significant decrease in enrollment and seeking consolidation to prevent closure. In that case, these results imply that consolidation may not be a practical solution to alleviate the issue of decreased enrollment.

Retention

The retention dataset included pre-consolidation retention rate data for the percentage of full-time students retained at the 62 pre-consolidated institutions included in the study. These data were compared to the post-consolidation percentage of full-time students retained at the final 31 consolidated institutions. Of the 130 observations of the percentage of full-time students retained, 59(45%) reflected a decrease in percentage retained, 63(49%) reflected an increase in percentage retained. In contrast, 8(6%) reflected no change in the percentage of students retained (Table 8).

Table 8. *Retention Frequency Table*

Retention Observation	Frequency	Valid Percent
Increase	63	49%
Decrease	59	45%
No Change	8	6%
Total	130	100%

Consolidation elicited a mean increase of 0.69% full-time students retained, 95% CI [-1.803210.75706] post-consolidation when compared to pre-consolidation. Consolidation is unlikely to have elicited a statistically significant increase in retention, t (129) = 0.81, $p > .001$. Therefore, the null hypothesis was not rejected.

Additionally, the practical significance was also not impactful. An average increase of less than 1% of full-time students retained is not impactful for most colleges or universities, small or large. Suppose the goal of the post-consolidated institutions included within the study was to achieve a significant increase in retention, especially for schools turning to consolidation to decrease the percentage of students opting to transfer or drop out of their institutions. In that case, these results could imply that consolidation may not be a practical solution to alleviate the issue of a decline in retention rates.

Graduation

The graduation dataset included a pre-consolidation number of full-time students who graduated within six years at the 64 pre-consolidated institutions included in the study. These data were compared to the post-consolidation the number of full-time students who graduated within six years at the final 32 consolidated institutions. Of 137 graduation observations, 28(21%)

reflected a decrease in the number of graduated students, while 107(78%) reflected an increase in the number of graduated students. In contrast, 2(1%) observations reflected no change in the number of full-time students who graduated within six years (Table 11).

Table 11. *Graduation Frequency Table*

Graduation Observation	Frequency	Valid Percent
Increase	107	78%
Decrease	28	21%
No Change	2	1%
Total	137	100%

Overall, there was an increase of 113(19.1%) full-time students who graduated within six years, 95% CI [-137.411, -88.45] post-consolidation when compared to pre-consolidation. Consolidation is related to statistically significant increase in full-time graduates, t (136) = 9.12, p < .001. Therefore, the null hypothesis was rejected.

Interestingly, the practical significance was not impactful overall for the graduation data set either. An average of about 113 full-time students who graduated within six years may be impactful for smaller colleges; however, numbers of this magnitude are likely insignificant for larger colleges and universities. Graduation statistics for institutions are essential because they provide insight into the number of students successfully completing their degrees on time. These data are metrics to hold institutions accountable and reflect the quality of the school. Suppose the goal of the post-consolidated institutions was to achieve a significant increase in the number of graduates, especially for schools experiencing a significant decrease in students completing degrees. In that case, the results suggest that consolidation may not be a practical solution to alleviate declining numbers of students graduating successfully and on time.

Tuition

The tuition dataset included the pre-consolidation full-time undergraduate cost of tuition at 88 of the pre-consolidated institutions included in the study. These data were compared to the post-consolidation data from the full-time undergraduate cost of tuition at the final 44 consolidated institutions. Of the 202 observations of the full-time undergraduate cost of tuition, 12(6%) reflected a decrease in the cost of tuition, while 185(92%) reflected an increase in tuition cost. In contrast, 5(2%) reflected no change in the full-time undergraduate cost of tuition (Table 14).

Table 14. *Tuition Frequency Table*

Tuition Observation	Frequency	Valid Percent
Increase	185	92%
Decrease	12	6%
No Change	5	2%
Total	202	100%

A 27.4% increase between the pre and post-consolidation full-time undergraduate cost of tuition shows that consolidation led to a mean tuition cost increase of $3,697.40, 95% CI [-4208.22017, -3186.58181] post-consolidation compared to pre-consolidation. Consolidation elicited a statistically significant increase in tuition, t (201) =14.27, $p < .001$. Therefore, the null hypothesis was rejected.

The practical significance of the tuition cost results was very impactful, however not in a positive manner. As stated by Hanson (2021), “the average cost of college in the United States is $35,720 per student, per year. The cost has tripled in 20 years, with an annual growth rate of 6.8%” (para. 1). The cost analysis showed that institutions that underwent consolidation gained an average increase of $2000 to $3000(27%) in full-time undergraduate tuition cost. Although this

increase is impactful for many colleges or universities, not only is this well beyond the average annual tuition increase, but the results could mean that the cost-savings expected due to the consolidation may not have been accomplished, resulting in a higher cost of tuition. An exploration into the possible explanations for the higher tuition is given below in the chapter.

Overall, the null hypothesis was rejected in three of the four research questions: the number of full-time students enrolled in the fall, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition. Despite the statistically significant enrollment, graduation, and tuition results, it can be inferred that the outcomes may not have had more meaning for the newly merged institutions. Testing for statistical significance is a way to quantify the likelihood that the results occurred by chance. In this study, the p values less than 0.001 allow the inference that the null hypothesis was invalid and that results could be applied to the entire population.

Finally, the possibility of a sampling error occurring due to sample sizes, variation, and a minor amount of noise may have affected how meaningful the results were. The sample sizes ranged between 86 pre-consolidated institutions (43 consolidated) for enrollment, 64 pre-consolidated institutions (32 consolidated) for graduation, and 88 pre-consolidated (44 consolidated) for tuition. Variation in the underlying population was significant because the institutions operated in diverse sectors (state vs. private), were of different sizes, and possessed different financial statuses and curriculum focus. However, individual differences between the data sets might not have been substantial; individual differences between the groups and the fact that not every sample reacts the same way created a small amount of noise. Replication of this study may require incorporating more institutions and increased uniformity of the institutions included in the sample.

Outcomes and Relation to Open Systems Theory and Literature Consistencies

Merger Types

Similar to the merger types discussed in the literature review, institutions in this study completed unifications and utilized the term merger or consolidation interchangeably in news announcements or articles regarding the upcoming union. They pursued mergers, consolidations, acquisitions, and merger sub-types such as cross-sectoral, single-sector, horizontal, and vertical mergers. The most common union pursued was a merger (76%), with the most common sub-type being a cross-sector merger (49%). The choices of types are significant for this study. The most common types of colleges or universities seeking to combine were institutions that did not offer the same educational curriculum or focus, resulting in at least one of the institutions involved losing its identity after the merger was completed. This result supports the high ranking of growth (87%) as a merger motivation because most of the schools included did not offer courses in the same field of study. In many instances, these institutions sought a merger to increase enrollment and expand their offerings and resources, increasing their ability to compete with other institutions.

Merger Failures

The instances of merger failures found in this study were not as high as the 70-90% failure rate reported for the business sector (Christensen et al., 2011); however, some institutional mergers in the study resulted in unsuccessful attempts. Of the 45 institutions that underwent a merger, consolidation, or acquisition, 7(15%) of the mergers resulted in the failure and ultimate closure of at least one of the two pre-consolidation institutions. There were 2(5%) mergers that resulted in a complete school closure or dissolution. While lower than the high percentage reported within the business sector, these results are in line with the reality of failures

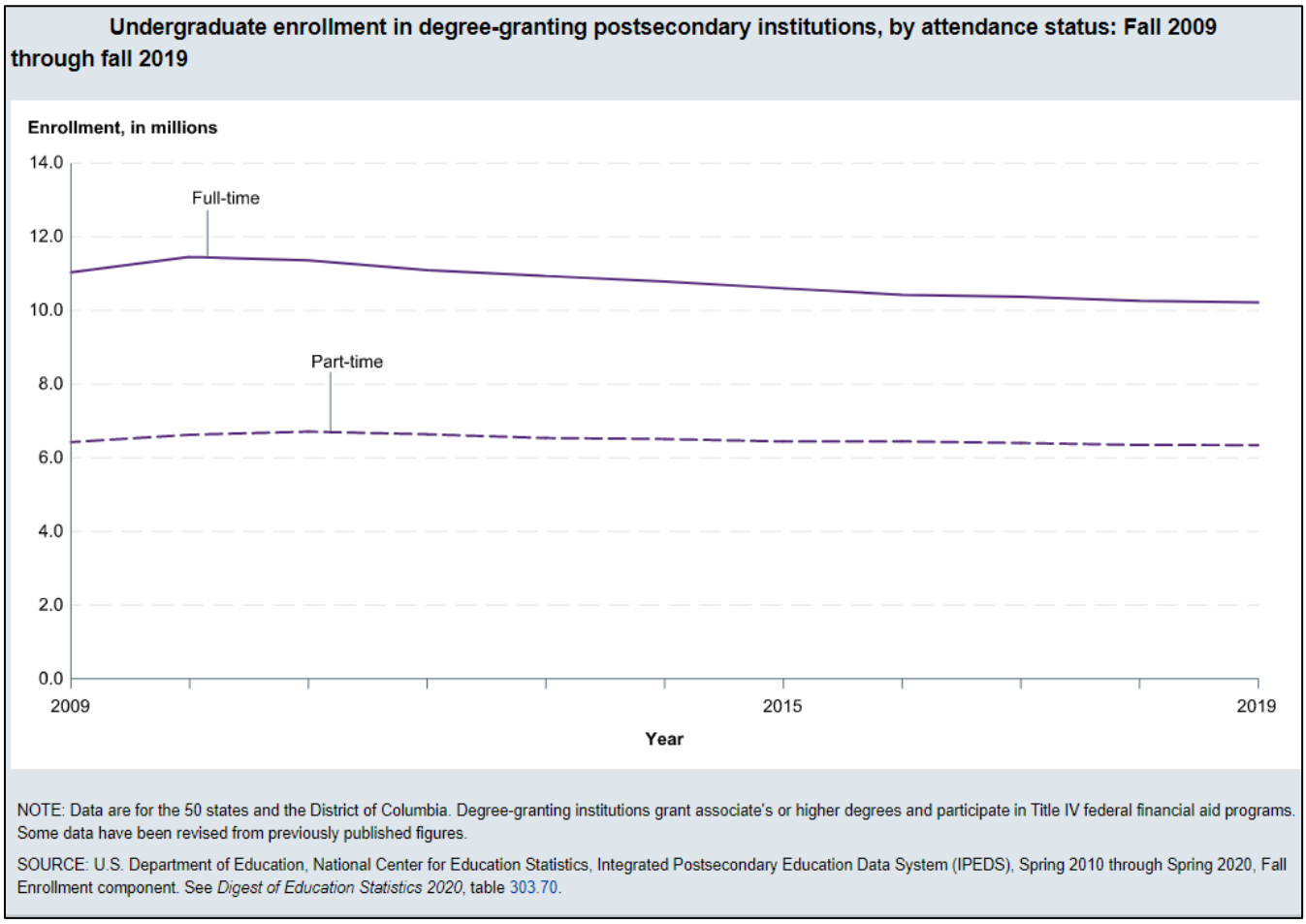
as reported within the literature and serve as a very significant fact that administrators should take into serious consideration. Additionally, due to the low instances of complete merger tracking and reporting, the percentages reported within this study are only a fraction of failures among higher education institutions that have taken place on a broader scale within the field. "About four out of five college or university mergers survive. In the for-profit sector, the comparable rate is closer to two out of five" (Lang, 2003, p. 19). In the end, as acknowledged by Azziz et al. (2017), the ultimate success or failure requires qualification due to the complexity of merger outcomes when applied to higher education institutions. Azziz et al. stated that "In every merger transaction, there are some who will declare victory and others who will admit defeat—regardless of whether a specific merger is completed or not" (p. 82). However, completing a merger was considered an overall success for this study, with closure designated as a failure.

Inconsistencies

National Trends

An expected result was the consistent national decline in overall enrolment within higher education institutions. As reported by the NCES (2021), between the fall of 2009 and fall 2019, the total undergraduate enrollment in degree-granting postsecondary institutions decreased by 5%, while full-time enrollment between fall 2009 and 2019 decreased by 7% (Figure 21).

Figure 21. *Undergraduate enrollment in degree-granting post-secondary institutions, by attendance status: Fall 2009 through fall 2019*



While some intermittent decreases in the annual full-time enrollment existed in the schools included within the study, most schools held steady or experienced an average 5.2% increase in full-time enrollment post-consolidation. As previously discussed, this result may not be practically significant; however, the finding contrasts with contemporary downward shifts in national enrollment trends.

Merger Motivations

The motives and trends for mergers vary between business and education sectors and for-profit and not-for-profit organizations. Most researchers studying consolidation have focused on the profit motives and maximizing shareholder value within the business sector (Bauer & Matzler,

2013). However, within the non-profit and education sectors, a significant body of research reports that non-profit organizations, including higher education institutions, were more likely than other organizations to pursue consolidation due to economic uncertainty and resource scarcity (Hawks, 2015). As cited by the Chancellor of the University System Board of Regents of the southeastern region included in this study, considerations for mergers in higher education have dramatically increased over the last decade partly due to the great recession of 2008 and the need to do "more with less" (Hawks, 2015, p. 27).

The recession served as the primary economic motivation for systems such as those in the southeastern region. Conceivably, the combined institutions' operations would become less costly, and thus, the board and state could more readily fund consolidated colleges and universities. Thus, merging could provide considerable savings as a result of consolidating processes. Remarkably, the southeastern system achieved those goals. As reported by Russell (2018) in a review of the system's five mergers that occurred from 2013 to 2018, the consolidations "were beneficial for students and most likely reflect productivity improvements realized at the affected campuses." She also stated that the system "saved on student services in order to invest more in academic support" without driving up costs (p. 123). Additionally, Russell found that the merger decreased first-year dropout rates by 8%, increased on-time graduation by 29%, and inter-system college transfers became more accessible than pre-merger. Although a few institutions within the system have experienced post-condition issues, such as struggles to increase enrollment, consolidation has been an overall positive and successful venture for the southeastern system.

Despite economic necessity being widely cited as the primary motive for consolidations in literature and by some of the institutions included in this study, economic considerations were not the primary objectives of most institutional mergers among those in this study. According to media

reports, opinion articles, social media posts, and articles published on the institutional websites, growth was most often cited as the primary motive rather than economic necessity, regardless of the true impetus (Table 3).

Table 3. *Merger Motivations*

Merger Motivation	Frequency	Valid Percent
Growth	78	87%
Synergy	46	51%
Efficiencies	37	41%
Economic	32	36%

This growth could be the most often cited factor for several reasons. There were instances of institutions merging that had overlapping programs but complementary needs, as well as institutions that merged but had different missions and needs and could "benefit from shared services and partnerships" (Hawks, 2015, pp. 11–12). As Martin and Samels (1994) suggested, institutions may decide to cite the merger to grow and proactively seek opportunities instead of relying on the merger as a lifesaver; thus, economic necessity could still contribute motivation.

Tuition

As reported in the literature, policymakers have continued to pressure higher education leadership and institutions to provide educational opportunities, higher graduation rates, and affordable tuition without increasing state support or additional resources (Hawks, 2015). Many institutions, including those included in this study, view mergers as a way to reduce costs by merging administrative offices, leadership positions, IT services, campuses, and academic departments. For example, Iowa State University established the College of Human Sciences in 2004, a merger of the previous College of Education and College of Family and Consumer

Sciences, with the idea of decreasing costs without a significant increase in tuition (Iowa State University News Service, 2004). However, despite these commonly cited merger goals and outcomes, the results of this study indicate that a sharp tuition increase following consolidation is not an uncommon occurrence.

Although there is no definitive answer, increased tuition could result from the challenges of managing mergers. However, institutional operations and processes must be successfully combined to ensure significant cost savings. For example, numerous mergers since the 1980s have unfortunately resulted in increased tuition, failed operational cost reduction, and ultimately increased costs for students (Quinton, 2017). Hawks (2015, p. 86) indicated that within merging institutions in the southeast region whose tuition rates varied significantly, the challenge became "how to develop a tuition and fee structure that was fair and equitable" because students at one institution were being charged about 35% less than students attending the other school. Russell (2018) found that the merger of public colleges led to an average tuition increase of 7%, prompting Quinton (2017) to cite that the mergers provided the opportunity to create "a large university that dominates the local market and can get away with raising prices" (para. 13). Unlike the schools included in Russell's study, the institutions included in this study were composed of private and public institutions; however, the small sample included in Russell's results reinforces that a tuition decrease is not guaranteed post-consolidation and is often unachieved.

Open Systems Theory

As outlined in the problem of the study, the outcome of a merger may influence a variety of processes or facets of the university (i.e., enrollment), which results in unintended consequences. For example, a merger could spare once-struggling institutions from closure or enable others to resolve issues concerning revenue or finance. The theoretical framework of this study was positioned using open systems theory. The researcher applied this theory to evaluate the

effectiveness of institutional consolidations, mergers, and acquisitions, emphasizing changes related to revenue-generating practices, such as enrollment, retention, graduation rates, and setting tuition levels.

The use of the theory provided the researcher an approach to identify and report the differences and the similarities between the specific inputs (resources), outputs (goals), outcomes (results), and environmental pressures of mergers across institutions. Overall, the researcher used open systems theory to highlight impacts on the institutional system, such as financial practices (enrollment, retention, tuition, and graduation), which are as essential to understanding as are the other resources that have been researched previously in higher education (information, human, and physical). Inputs or resources such as information (academics, curriculum, and degree programs), financial (enrollment, retention, tuition, and graduation), human (staff, faculty, and admiration), and physical (materials, equipment, and facilities) all serve as an essential part of the higher education institution open system. However, for this study, data were collected to analyze the pre and post-consolidated institutions' financial inputs (enrollment, retention, tuition, and graduation). Although the data were not as comprehensive as envisioned, the analysis was sufficient to ascertain that consolidation did not negatively impact these financial inputs for the schools included in the study. Tuition increases were not prevented by consolidation, but consolidation did not necessarily directly increase it.

Another facet of the open system covered in this study included environmental pressures. Some of the primary external pressures that institutions in the study faced were decreased enrollment trends, decreased governmental support or funding, a need for financial stability and expansion of offerings, and an ability to thrive in an increasingly competitive field. Researching through the open systems lens led to the understanding that, as consistent with Harman’s (2002)

findings, the environmental pressures faced by these institutions were similar to the most common merger motivations and goals in the literature review of 'economic need' as well as the most common merger motivator of this study of 'growth.'

Another aspect of the open systems theory, outcomes, or the results from the consolidation, was only partially established for this study. An assessable outcome was achieving a completed merger, as realized by 80% of the institutions included in the study. Growth was partially established as attained due to the average, though often minor increases in enrollment, retention rates, and graduated students. Additionally, the increased tuition costs suggest that the desired efficiency outcomes were not fully achieved despite the merger. The achievement of outputs such as synergy and economic stability could not be established due to the absence of post-consolidation economies of scale and finance progress reports of the respective institutions. The overall results did not support that consolidation led institutions to achieve all the outputs intended by the merger; however, the outcomes showed that the merger process is a viable ancillary option.

Implications

Despite the insights and overview of the goals, causes, and data analysis of the institutions' merger ventures, the overall results did not provide robust or conclusive quantitative results. Outcomes of this study seemingly indicate a relationship can be explained by common factors and not inherently due to consolidation. As a result, these mixed outcomes lend to the initial implications that consolidation, though growing in popularity, does not intrinsically impact revenue-generating practices such as enrollment, retention, graduation, and tuition. Additionally, as cited in the literature review, significant research or follow-up reports on the outcomes of the consolidations included in the study were not readily accessible or available. The majority of available research was conducted on merger and acquisition activities in the business sector and the strategies, motives, incentives, success or organizational profitability, and survival (Bauer &

Matzler, 2013). Research on mergers in higher education mainly focuses on the behavioral and psychological facets of executing a consolidation strategy (Empson, 2001; van Knippenberg et al., 2002). Thus, there are few results with which to compare those from the current study.

The two most relevant prior studies are Russell (2018) and Quinton (2017). This current study also mainly produced neutral results similar to Russell's study, which focused on the short-term impacts of consolidation on five more recent mergers of a few public institutions within the University System of Georgia. These results showed no overt increase or decrease in enrollment, retention, or graduation overall. Unlike Quinton's (2017) findings that the merger between a state university and struggling community college ultimately doubled the graduation rate for first-time, full-time students in two-year programs from 6 to 12%, the current study did not reproduce similar results from the consolidated institutions included in the study. The current study mainly included four-year institutions. This study, combined with Quinton (2017), Russell (2018), and the increased instances of mergers every year, makes it apparent that academic administrators perceive mergers as an approach to achieve growth, improve efficiency and curriculum delivery, and a means to rectify financial issues. In the first case of an HBCU acquiring another higher education institution, Delaware State University (DSU) recently finalized the acquisition of the private Wesley College in July of 2021 (Redden, 2021). No purchase or exchange of funds occurred, but instead, Delaware State agreed to acquire Wesley's liabilities and accept all Wesley students in good academic standing (Redden, 2021).

This transaction raises the question of why? The answer is summed up in a statement DSU President Allen,

> My intention is to grow our institution to about 10,000 folks over the next couple years, and this is a jump-start to that opportunity … There is real, and I do mean real, opportunity

for us to grow the organization and to do that smartly." (Eichmann, 2021, para. 1).

This statement has been echoed in various ways by administrators who were hopeful for post-consolidation outcomes. As Gardner (2020) suggested, "it is not hard to see the appeal, in the current moment, of combining institutions" (para. 1). Vacillating enrollment, weak state support, and a forecast of dwindling high-school graduates have compelled public systems and many administrators to view merging as a straightforward and viable solution. In light of results that emerge from this and studies like Russell's (2018), mergers may more feasibly be viewed to improve quality and student benefit due to deeper evaluation of institutions' policies, processes, and resources during a consolidation.

Although the few available studies were comparable to the current study, the small samples in these studies, such as Russell (2018) and Quinton (2017), did not provide robust enough results for a complete comparison. Interestingly, despite initial opposition and backlash of students in initial news articles that preceded many of the mergers included in this study, post-consolidation retention rates imply that mergers had neutral effects on the institutions. Although the current study results lend some quantitative insight into merger outcomes, no clear and comprehensive report exists on measurable outcomes. This lack of clarity poses difficulties for organizations within higher education with no definitive way of planning out or executing a merger process. The lack of comprehensive data as a basis for merger decisions only furthers the difficulties of institutions when they are expected to complete these ventures without available information, either quantitative or qualitative.

Additionally, the shortage in and inconsistency of school merger data is compounded by the lack of studies or literature on post-enrollment successes, failures, and complications displays insight into an even bigger issue. Schools need better record-keeping processes and should be

more cognizant of data reporting standards and consistency. More studies need to be conducted if merger processes such as consolidation continue to be a favored strategy for institutions regardless of motivation.

Limitations of the Study

There were four primary limitations to this study. First, the principal data source was from the 45 consolidated (90 pre-consolidated) institutions in this study collected from the Department of Education's IPEDS. As a result, data collection methods were tedious as several of the study's institutions did not readily have data available, and reporting and formatting of data were inconsistent.

As an additional complication, the researcher was limited to utilizing each institution's data or information in the IPEDS reports. Data were available based on the year and recording practices of IPEDS. Institutional data reporting processes changed based on the pre or post-consolidated institutions and were not always available for institutions before consolidation.

The scarce and fragmented literature and theoretical models for higher education institutions pursuing mergers, consolidations, and acquisitions significantly limited this study. Despite the numerous mergers in higher education throughout the United States, the researcher did not find studies with a comprehensive evolution and review of the essential lessons and results of the decision-making and management before, during, and after the mergers. As a result, significant gaps in knowledge exist, especially quantitative research, conclusions, and guidance surrounding mergers, consolidations, and acquisitions among higher education institutions.

Due to the limited nature of the institutions' available data and post-consolidation progress reports, the researcher could not fully assess the effects of complex practices such as mergers, acquisitions, and consolidation. The limited data made it difficult to understand the

entire relationship that consolidation had on the number of full-time students enrolled in the fall, the rate of full-time students retained, the number of full-time students who graduated within six years, and the full-time undergraduate cost of tuition for the 45 consolidated (90 unconsolidated) institutions included in this study. As a result, only a few outcomes and successes were reported. Until more abundant data and definitive research and evaluation of the financial and economic results of consolidation are available, research efforts, such as this study, provides some insight and understanding of consolidation, even though it may not be conclusive or replicable.

Recommendations for Future Research

The following recommendations for future research are made based on the findings and issues that were unaddressed, as well as most recent national events that could impact the future of higher education:

1. This study should be more comprehensively replicated using a mixed-methods approach: combining the quantitative aspects included in this study, as well as the human resource (faculty, staff, student) and programmatic (academic programs and offerings) aspects typically explored in the majority of other case studies.

2. Additional facts for future study include pre and post-merger economies of scale and finance reports available on the IPEDS website, such as operating revenues, revenues by source, core revenues, and core expenses.

3. As conversations concerning race, access and education continue to increase, considerations regarding consolidations' impact on the diversity of student populations enrolling, being retained, and graduating should be explored.

4. Future research should be conducted on whether or not a noticeable uptick in mergers resulted after the onset of the coronavirus pandemic.

5. Future research should be conducted on how the ongoing coronavirus pandemic that

began in 2020 impacted enrollment, retention, graduation, and tuition.

6. Future considerations for university consolidation should shift merger motivations from focusing on improved university conditions and status to a broader focus on state and national needs (i.e., Regional or national leader in the areas of technology, foreign policy goals, or civil rights).

There are additional opportunities for research concerning higher education mergers, as described above. Although the focus of this study was quantitative, more comprehensive studies should be conducted that employ a mixed-methods approach and possibly focus on one specific aspect of the process and outcomes or builds upon a systems approach, i.e., beginning (planning) to end (outcomes), such as the open systems approach. Piloting these studies could provide university and system leaders with consolidation data to assess and strategize the benefits and potential detriments to business processes such as mergers and consolidations more efficiently. Future studies could establish more statistically and practically sound results by gathering and evaluating qualitative and quantitative data to evaluate a merger's outcomes.

Furthermore, pressures such as the impact of the coronavirus pandemic and its continued threat to the function and resources of colleges; the expected decline in the number of high school graduates over the next decade; and increasing skepticism and partisan divide in public perceptions regarding the value of higher education continue to persist (Meraw, 2020). Therefore, the prediction is that consolidations and considerations for merging practices will continue to rise. Therefore, serious consideration and research must be conducted, and an increase in transparency of pre, transition, and post-consolidation data must begin to be shared.

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APPENDIX I:

Merged Institutions

Merged Institutions

Region – Midwest

Merged Institution	Type of Merger	Institution Type	Institution 1	Type	Institution 2	Type	Date
Midwest University 1	Consolidation	Private University	Midwest School A	Private University	Midwest School B	Private University	1990
Midwest University 2	Merger	Private Catholic University	Midwest School C	Private Catholic University	Midwest School D	Private Catholic Women's College	1991
Midwest University 3	Merger	Public Research University	Midwest School E	Public Research University	Midwest School F	2-Year Technical College	1991
Midwest University 4	Merger	Private University	Midwest School G	Private University	Midwest School H	Private College	2000
Midwest University 5	Acquisition	Private Catholic University	Midwest School I	Private Catholic University	Midwest School J	Private Catholic College	2001
Midwest University 6	Merger	Public Research University	Midwest School K	Public Research University	Midwest School L	Health Sciences University	2006
Midwest University 7	Merger	Public University	Midwest School K	Public University	Midwest School L	Public University	2016

Region – Northeast

Merged Institution	Type of Merger	Institution Type	Institution 1	Type	Institution 2	Type	Date
Northeast University 1	Merger	Private Research University	Northeast School A	Private Research University	Northeast School B	Private Women's College	1999
Northeast University 2	Merger	Private University	Northeast School C	Private University	Northeast School D	Private College	1996
Northeast University 3	Merger	Private Research University	Northeast School E	Private Research University	Northeast School F	Private Liberal Arts College	1999

Northeast University 4	Merger	Public University	Northeast School G	Public Research University	Northeast School H	4-Year Private Law School	2000
Northeast University 5	Merger	Private University	Northeast School I	Private University	Northeast School J	Private College	2002
Northeast University 6	Merger	Private University	Northeast School K	Private University	Northeast School L	Private Catholic University	2002
Northeast University 7	Merger	Private Research University	Northeast School M	Private Research University	Northeast School N	Private Engineering and Technology School	2014
Northeast University 8	Merger	Private College	Northeast School O	2-Year Private College	Northeast School P	2-Year Private College	2010
Northeast University 9	Merger	Private University	Northeast School Q	Private University	Northeast School R	2-Year Private nursing School	2017
Northeast University 10	Acquisition	Private Art College	Northeast School S	Private Art College	Northeast School T	Independent Institute for Documentary Studies	2016
Northeast University 11	Merger	Public Research University	Northeast School U	Public Research University	Northeast School V	Public Law School	2010
Northeast University 12	Merger	Private Performing Arts Conservatory	Northeast School W	Private Performing Arts Conservatory	Northeast School X	Private Music College	2016
Northeast University 13	Acquisition	Private Research University	Northeast School Y	Private Research University	Northeast School Z	Private Art College	2016
Northeast University 14	Acquisition	Private Research University	Northeast School AA	Private School of Education	Northeast School AB	Private College	2017
Northeast University 15	Acquisition	Private College	Northeast School AC	Private College	Northeast School AD	Technology-Oriented Postsecondary Institute	2009
Northeast University 16	Merger	Public Law School	Northeast School AE	Public Land-Grant Research University	Northeast School AF	Private Law School	2010
Northeast University 17	Merger	Private Music School	Northeast School AG	Private Music School	Northeast School AH	Private Liberal Arts College	2012

Northeast University 18	Merger	Private Research University	Northeast School AK	Private Research University	Northeast School AL	Private College	2016
Northeast University 19	Merger	Private University	Northeast School AM	Private Medical School	Northeast School AN	Private College	2017
Northeast University 20	Merger	Private College	Northeast School AO	CETA Training Program	Northeast School AP5”	Private College	2008
Northeast University 21	Merger	Private Liberal Arts College	Northeast School AQ	Private Liberal Arts College	Northeast School AR	Private Graduate International Studies Institute	2010

Region – Southeast

Merged Institution	Type of Merger	Institution Type	Institution 1	Type	Institution 2	Type	Date
Southeast University 1	Merger	Private	Southeast School A	Private University	Southeast School B	Private Health Science University	1994
Southeast University 2	Merger	Public	Southeast School C	Public University	Southeast School D	Private University	2011
Southeast University 3	Merger	Private	Southeast School E	Private Christian University	Southeast School F	Private College	2013
Southeast University 4	Merger	Public	Southeast School G	State University	Southeast School H	Public University for Health Sciences	2013
Southeast University 5	Consolidation	Public	Southeast School I	State College	Southeast School J	Public College	2013
Southeast University 6	Consolidation	Public	Southeast School K	2-Year College	Southeast School L	2-Year College	2013
Southeast University 7	Consolidation	Public	Southeast School M	State College	Southeast School N	State College	2013
Southeast University 8	Consolidation	Public	Southeast School O	2-Year Public College	Southeast School P	4- Year Public College	2013
Southeast University 9	Merger	Private	Southeast School Q	Private Christian University	Southeast School R	Private University	2015
Southeast University 10	Acquisition	Public	Southeast School S	State University	Southeast School T	State University	2015

Southeast University 11	Merger	Public	Southeast School U	Public University	Southeast School V	2-Year Public College	2015

Region – Southwest

Merged Institution	Type of Merger	Institution Type	Institution 1	Type	Institution 2	Type	Date
Southwest University 1	Merger	Public	Southwest School A	Public University	Southwest School B	Public University	2015

Region – West

Merged Institution	Type of Merger	Institution Type	Institution 1	Type	Institution 2	Type	Date
West University 1	Merger	4-Year Private	West School A	Private Law School	West School B	Private Law School	2002
West University 2	Merger	4-Year Public	West School C	4-Year Public Research University	West School D	4-Year Private Medical School	2004
West University 3	Merger	4-Year Public	West School E	4-Year State University	West School F	2-Year College	2008
West University 4	Merger	4-Year Private Christian University	West School G	4-Year Private Christian University	West School H	Nebraska Christian College	2016
West University 5	Acquisition	4-Year Private Healthcare University	West School I	4-Year Private Healthcare University	West School J	Nevada Cancer Institute Foundation	2013

APPENDIX II:

Institutional Review Board Exemption

Institutional Review Board (IRB)
For the Protection of Human Research Participants

PROTOCOL EXEMPTION REPORT

Protocol Number: 04118-2020 **Responsible Researcher:** Wendi Hicks

Supervising Faculty: Dr. Bonnie Peterson

Project Title: *When Two Become One: A Case Study of the Relationship Between College Consolidation and Enrollment Retention and Graduation.*

INSTITUTIONAL REVIEW BOARD DETERMINATION:

This research protocol is **Exempt** from Institutional Review Board (IRB) oversight under Exemption **Category 4**. Your research study may begin immediately. If the nature of the research project changes such that exemption criteria may no longer apply, please consult with the IRB Administrator (irb@valdosta.edu) before continuing your research.

ADDITIONAL COMMENTS:

- *Upon completion of this research study all collected data must be securely maintained (locked file cabinet, password protected computer, etc.) and accessible only by the researcher for a minimum of 3 years.*

☒ ***If this box is checked, please submit any documents you revise to the IRB Administrator at irb@valdosta.edu to ensure an updated record of your exemption.***

Elizabeth Ann Olphie *12.07.2020*
Elizabeth Ann Olphie, IRB Administrator

Thank you for submitting an IRB application.
Please direct questions to irb@valdosta.edu or 229-253-2947.

Revised: 06.02.16