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Academic Realignment: An Investigation Of Change Within A New Academic Unit At A Research University

Abbygail Tull Langham
University of Alabama at Birmingham

ACADEMIC REALIGNMENT: AN INVESTIGATION OF CHANGE WITHIN A NEW ACADEMIC UNIT AT A RESEARCH UNIVERSITY

by

ABBYGAIL TULL LANGHAM

LINDA SEARBY, COMMITTEE CO-CHAIR
GARY PETERS, COMMITTEE CO-CHAIR
JULIA AUSTIN
AKHLAQUE HAQUE
MARCIA O'NEAL

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ABBYGAIL TULL LANGHAM

EDUCATIONAL LEADERSHIP

ABSTRACT

Even in normal times, limited resources require U.S. universities to be more open to change. In late 2007, however, a global recession, the worst since the Great Depression of the 1930s, intensified constraints on higher education. To achieve intended outcomes, leaders at colleges and universities often reorganize or realign their organizations during challenging times. Indeed, one public doctorate-granting research university with very high research activity in the southeastern United States has responded to the economic crisis by realigning four academic schools into one large college. Scholarly inquiry was needed to understand the impact of this realignment.

The purpose of this study was to gain an understanding of the results of the realignment of an academic unit at the University of Alabama at Birmingham (UAB), during a period of economic hardship, by examining changes over time that followed the realignment and can be tied to the stated purposes of the realignment. Administrators at the UAB noted three main justifications for realignment: to improve interdisciplinarity, enhance student services/strategic investments, and create financial efficiencies. The newly formed academic unit (the College of Arts and Sciences or CAS) was created in 2010.

Few studies were identified that measured the impact of change caused by realignments. Little research has been conducted on the effectiveness of steps that universities are taking, such as academic realignment, to weather financial crises. This

study was needed because, without evidenced-based methods of inquiry and self-assessment, institutional leaders and stakeholders may find it difficult to track the progress of realignments, refine implementations, and evaluate successes. Additionally, this study was needed at the UAB in order to give an initial picture of the results of the realignment that formed the CAS because no plans were shared for evaluation prior to the implementation of the organizational change. Archival data that were regularly collected each semester for institutional research purposes at the UAB were analyzed. Descriptive statistics and chi-square tests of proportions were used to answer the research questions. The findings suggested that at the time of this study the intended outcomes were not achieved as a result of the academic realignment.

Keywords: academic realignment/restructuring, higher education, organizational change, leadership and decision-making, institutional research/assessment, strategic planning

DEDICATION

To two women in my life who taught me by example that dreams can come true through lifelong learning, my mother, Carole Elaine Braden Tull, who in 2007 also attained her doctorate in Educational Leadership from the University of Alabama at Birmingham and my maternal grandmother, Mary Evelyn Milam Braden, who in 2003 earned her Bachelor's Degree in Music from Berry College at the age of 79.

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Chapter 1

Introduction to the Study

Introduction

Even in normal times, limited resources require U.S. universities to be more open to change. In late 2007, however, a global recession, the worst since the Great Depression of the 1930s, intensified constraints on higher education. "The U.S. National Bureau of Economic Research dates the start of the economic recession to the fourth quarter of 2007, but the level of intensity was felt much more keenly in most countries as of September 2008, signaled by the bankruptcy of Lehman Brothers" (Middlehurst, 2010, p. 76). Times of reduced resources often create the need for changes to academic organizations; often these changes result in broader, more individualistic, and more interdisciplinary colleges and universities (Capaldi, 2009). During economic downturns, university administrators are forced to make many tough decisions in order to balance declining resources, meet demands for accountability, adjust the changing faculty ranks, and provide the societal need for knowledge (Eddy, 2010). Since the middle of the last decade, these tough decisions have called for strategic planning and organizational change in higher education, including total reforms in curricula, assessment, community-based learning, governance, faculty vitality, finance, and facilities (Guarasci & Lieberman, 2009; Welsh, Nunez, & Petrosko, 2006). Yet, an analysis by Mills, Bettis, Miller, and Nolan (2005) suggested that reorganizations may not necessarily create

advantages. Without evidenced-based methods of inquiry and self-assessment, institutions may find it difficult to track the progress of realignment, refine implementation, and evaluate success.

Current research on strategic planning and governance in higher education indicates that academic realignments at universities represent a shift toward creating interdisciplinary departments, which are equipped to seek funding from multiple sources (Capaldi, 2009). Houghton, Steele, and Henty (2004) documented a transition from more discipline-specific researcher-led academic work to research that emerges as a result of problems and/or funding issues and that are more collaborative or interdisciplinary. Other researchers (Welsh, et al., 2006) argued that "strategic planning has become more important as colleges and universities attempt to navigate difficult and confusing economic, political, and policy environments" (p. 693). Indeed, one doctorate-granting research university in the southeastern United States has responded to the economic crisis by realigning four academic schools into one large college. Scholarly inquiry was needed to understand the impact of this realignment.

Purpose of the Study

The purpose of this study was to gain an understanding of the results of the realignment of an academic unit at the University of Alabama at Birmingham (UAB), during a period of economic hardship, by examining changes over time that followed the realignment and can be tied to the stated purposes of the realignment. The UAB is a public doctorate-granting university with very high research activity in the southeastern United States of America. Administrators at the site institution noted three main

justifications for realignment: to improve interdisciplinarity, enhance student services/strategic investments, and create financial efficiencies. The newly formed academic unit (the College of Arts and Sciences or CAS) was created in January of 2010 by a merger of three schools—School of Arts and Humanities, School of Natural Science and Mathematics, and the School of Social and Behavioral Sciences. The School of Education was also placed under the new college umbrella, but it was considered by the university administration as an autonomous unit (Appendix A).

Research Questions

To better understand the impact of an academic realignment, on the College of Arts and Sciences at UAB, which occurred during times of financial constraint, the following questions were posed:

1. Did the interdisciplinarity within the CAS increase following the academic realignment?
2. Did services for students/strategic investments at the UAB improve within the CAS following the academic realignment?
3. Did financial efficiency for administrators, faculty, staff, and students at the UAB improve within the CAS following the academic realignment?

Hypotheses

The following null hypotheses were formed. It is important to note that no null hypothesis was formed for the first stated cause of the realignment (to increase interdisciplinarity) because this variable was not assessed through inferential statistics.

Instead, descriptive statistics and comparisons were used to relate the impact of academic realignment on the level of interdisciplinarity within the realigned academic unit.

1. There is no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment. (H_0)
2. There is no significant improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment. (H_0)

Significance of the Study

There are few precedents for university administrators to follow in leading organizations during situations such as the current economic downturn. Little research has been conducted on the effectiveness of steps that universities are taking, such as academic realignment, to weather financial crises. Examining the impact of academic restructuring on the newly realigned academic unit—CAS—at UAB provided a better understanding of the effects of realignments on academic units during times of economic crises. The study provided insight into the administrative decision for the realignment and the outcomes of the academic realignment during difficult economic times.

In particular, this research may be significant to administrators, faculty, staff, and students in higher education. As overall budgets continue to shrink, higher education leaders may find this study to be a useful framework for understanding why institutions realign during times of economic crises, the intended outcomes for realignment, and the impact of the realignment within the newly formed (restructured) academic unit. The

results of this study may provide data to aid future academic realignment decisions for leaders at the site institution and beyond. Further, examining an academic realignment at an institution of higher education during difficult budgetary times will provide insight into whether these shifts and reorganizations are positive or negative moves for the university, its students, and academic research. This study was needed to better understand the intricacies of academic realignments by measuring institutional effectiveness in several ways. Examining issues associated with the impact of academic realignment, while in the throes of a turbulent economy, as measured by the intended outcomes, will help administrators, faculty members, staff, and students to have a better understanding of the changes that occurred on their campus. The results of this study may aid university administrators in creating a data analysis process for tracking change and in answering whether or not this type of change achieved the desired outcomes. Additionally, the study provided insight on creating economies of scale and in distributing resources with a constrained budget while maintaining high levels of academic rigor. The research was significant because it was created to reduce a gap in the literature and to provide new research for the body of knowledge on organizational change in higher education. Although the results may not be generalizable, the study may still be useful to others because most institutions have offices/databases with data that are similar to those which were used for this study. This research may provide a methodological framework from which other campus leaders can conduct similar inquiries using their own institution's data and variables applicable to their school. Finally, this study provides a starting point for further research regarding this institution.

Definitions of Key Terms

College: A college was defined as "an organizational entity which exists as a constituent academic unit of a university offering instruction in a grouping of academic disciplines" (e.g., CAS) (Sullivan, 2004, p. 53).

School: A school is defined as "an academic unit offering instruction in a particular skill or field. It may exist as a constituent organizational unit of a college or a university" (e.g., School of Education) (Sullivan, 2004, p. 54).

Academic Restructuring/Realignment: An academic restructuring/realignment was defined as a planned reorganization or consolidation of academic programs, departments, or schools at higher education institutions in support of stated strategic objectives. For the purposes of this study, academic restructuring/realignment was operationally defined by time (pre-realignment and post-realignment). The specific time frames measured were either semester, fall 2008 as the "before realignment timeframe" and fall 2011 as the "after realignment timeframe," or fiscal year 2007-2008 as the "before realignment timeframe" and fiscal year 2010-2011 as the "after realignment timeframe."

Doctorate-granting University: A doctorate-granting university was defined as "including institutions that awarded at least 20 research doctoral degrees during the update year (excluding doctoral-level degrees that qualify recipients for entry into professional practice, such as the JD, MD, PharmD, DPT, etc.). Excludes Special Focus Institutions and Tribal Colleges" (Carnegie Foundation for the Advancement of Teaching, 2010).

Established College or School: The term established college or school meant "to bring into being on a firm or permanent basis an organizational entity offering instruction in a

particular field of study or a grouping of academic disciplines. A college or school may be established by combining programs or departments operating in more than one college or school into a new single organizational structure" (Sullivan, 2004, p. 55).

Merged College or School: To merge a college or school meant "to combine or unite two or more existing colleges or schools into a single organizational structure" (Sullivan, 2004, p. 55).

Institutional Research: The Association for Institutional Research (2012) defined institutional research as follows:

> The field of institutional research (IR) is relatively unknown outside its own circles, because of the behind-the-scenes nature of the work. IR professionals work primarily on college campuses collecting a wide range of information that allows school administrators to make wise planning and fiscal decisions covering a broad range of institutional responsibility. These areas can include admissions, financial aid, curriculum, enrollment management, staffing, student life, finance, facilities, athletics, and alumni relations. In addition to providing the data-driven foundation for good on-campus decision making, institutional researchers use the data they collect for government reporting and to benchmark their results against similar institutions.

Interdisciplinary/Interdisciplinarity: Interdisciplinarity was defined as the extent to which individuals from different disciplines/programs/departments scholastically collaborate and the extent to which multi-disciplinary instructional opportunities for undergraduate students are heightened. Interdisciplinarity was operationally defined as interdisciplinary programs, course offerings, interdisciplinary majors, etc. for this study.

Enhance Student Services/Improve Strategic Investments: Enhancing student services and improving strategic investments was defined as the extent to which resources and amenities for student success were improved (e.g., student advising). For this research, enhanced student services/strategic investments was measured by entering freshman student persistence from fall semester to spring semester and from fall semester to fall semester within the realigned academic unit before and after the academic realignment. *Financial Efficiency:* Financial efficiency was defined as the extent to which duplicated efforts are reduced and budgets are managed more resourcefully. This study measured financial efficiency by comparing proportions of administrators, faculty, staff, and students both before and after the realignment. Additional descriptive statistics were used to assess the academic unit's overall expenditures and the university's state appropriations.

Limitations of the Study

This quantitative study was limited because of its topic, design, and research questions. 1.) Lawrence and Service (1977) noted that "quantitative information (in higher education) cannot and should not replace any of these other sources or types of information—experience, intuition, judgment, and plain old gut-level feeling" (p. 69). The first limitation was the study's method of analysis. Although quantitative research is useful, its use in this study would not comprehensively answer all facets regarding the impact of realignment. 2.) Multiple internal and external factors aside from the realignment could have impacted the variables for this study. For example, an internal factor such as higher tuition rates would not be a result of the realignment, yet could still

potentially affect the data and findings. 3.) The academic realignment at UAB that sparked the creation of the CAS occurred only a few academic years before this study was conducted. More time was needed to fully deduce the full impact of the realignment. 4.) The results of the research were not fully generalizable to other institutions of different types and in different regions because the study was conducted at one public doctoral-granting research-intensive institution in the southeastern United States. The data collected came from internal databases and reports from a variety of sources that are housed at UAB in the Office of Planning and Analysis and maintained by IR officers. 5.) In addition the limitation of time in this study, one key limitation was trying to quantitatively measure outcomes after the implementation of the change.

Context/Background/Site Description

The UAB is a public doctoral-granting university with a medical center, located in Birmingham, Alabama. In fall of 2011 the university had a total enrollment of 17,575. There were 11,128 undergraduate students, 5,402 graduate students, and 1,045 professional students (D.M.D, M.D, and O.D.) (Office of Planning and Analysis, 2012). UAB is the largest employer in the state of Alabama with 18,984 employees in fall 2011. Only 2,289 of those employees were faculty as of fall 2011. The CAS had 6,944 total students enrolled as of the fall semester of 2011. During the same semester, the CAS employed 330 individuals with regular full-time faculty appointments (Office of Planning and Analysis, 2012).

Originally a part of the University of Alabama, UAB was founded as a separate institution in 1969. It began as a medical school and teaching hospital. Over time, the

medical school and hospital grew to include an academic health center and later a university (Fisher, Harris, Pennycuff, & U.A.B.M., 1995). Fisher, et al., (1995) wrote the following:

> UAB differs from the host of medical schools and medical centers that have their own beginnings in the American post-war experience. In addition to UAB's entrepreneurial founding corporate culture and extraordinary continuity of leadership, the urban university mission not only affected how and what programs developed, but also profoundly affected a city known almost exclusively for civil rights history. (p. xii)

Research efforts became an important asset. "In the 1970s, the institution benefitted from its already interdisciplinary focus by receiving funding for collaboration across departments which resulted in large amounts of federal research funding" (Fisher et al., 1995, xiii). During this time UAB was the only four year public college in Birmingham. The 1970s and 1980s were difficult years for the national and state economies. UAB leaders offset these financial constraints by increasing enrollments, acquiring funding from grants, focusing on patient-care earnings, and advocating for the importance of the university's economic impact on the city of Birmingham, a city facing a rapidly declining steel industry (Fisher et al., 1995). The university continued to grow its health and non-health programs during this time. As with any growing organization, UAB's leadership used strategic planning, interdisciplinary collaboration, and reorganizations to shape and reshape the institution as it developed (Fisher et al., 1995). Fisher et al. astutely noted the following:

> The major test of a modern university will continue to be how quickly it can respond to the needs of society. Yet there is something timeless about universities, enduring as they have for eight centuries in the face of great societal upheaval and change. There is something timeless about universities even when they strive to respond to the needs of society. For it is their very willingness and ability to examine the changing needs of society with rigorous intellectual honesty that makes universities of great value. The creative process of building on a vision continues. (p. 130)

Just as Fisher et al. (1995) had alluded, UAB would continue to experience changing societal demands and pressures and thus, would adapt. In 2010 UAB began experiencing a significant amount of change. First, the university underwent an academic realignment that consisted of a merger of schools—the School of Arts and Humanities, the School of Social and Behavioral Sciences, and the School of Natural Sciences and Mathematics—to form one CAS. The School of Education, although part of the CAS governance structure, retained its school identity as a distinct unit within the new college (Davis-Hill, 2009).

UAB administrators stated several reasons for realigning these academic units. One of the first stated goals of the realignment was to strengthen undergraduate curriculum by creating a relationship between educators and scholars within specialized fields, such as math teachers having rapport with mathematicians or social science teachers having a collegial relationship with the university's history department. Secondly, administrators articulated that they wanted to improve student support and advising services between these schools. A third goal indicated by the university's

administration for the realignment was to achieve more financial efficiency. All three of the stated justifications for realignment at UAB – strengthen relationships with scholars within specialized fields, improve student support, and create financial efficiencies – were indicators that UAB's decision makers sought to meet the "key challenges" of those in administrative posts at universities. As Rich (2006) noted "the key challenge to academic leadership is to restructure the allocation of academic assets, particularly the organization of the faculty, in ways that better serve emerging societal and scholarly needs" (p. 37).

UAB has proven its ability to adapt in the past. The concepts of realignment and even interdisciplinary collaboration are not new concepts at UAB. According to the University President at the time of the realignment, Dr. Carol Garrison, "Collaboration is in the DNA of the institution, going back to UAB's formative years when scarce funding forced faculty from many different departments to share lab space, classrooms, and—more importantly—knowledge" (C. Garrison, 2012). According to UAB's *Facts & Figures* publication, in 1973, the School of Arts and Sciences was restructured into Schools of Humanities, Natural Sciences and Mathematics, and Social and Behavioral Sciences (Office of Planning and Analysis, 2012). This latest restructuring is an indication that UAB has come full circle with the creation of a new college in an effort to better serve students and faculty while at the same time creating efficiencies.

Originally, discussion involving realignment was facilitated by then Provost, Dr. Eli Capilouto. Institutional researchers in the Office of Planning and Analysis, per his request, provided the Provost and the commission for realignment with general institutional and school level data via the university scorecard, the university's

department planning profiles, trend tables, and credit hour production, enrollment, and financial reports (G. Brown, personal communication, February 23, 2012). The Provost shared his thoughts and findings with the President, and together they decided to look into the idea of realignment further by appointing a group of consultants (The Academic Realignment Commission or ARC) to evaluate whether or not this type of restructuring was necessary and, if so, to make recommendations on how it should look. The President and Provost searched for individuals who had demonstrated strong leadership and objectivity.

According to the commission biographies on the UAB Focus on the Future website, the ARC included Dr. Mark Rosenburg (Chair), Former Chancellor, Board of Governors, State University System of Florida and Distinguished Visiting Research Professor, Vanderbilt University; Dr. Patsy Greenup, Associate Professor in the UAB School of Health Professions; Mr. Wyndall Ivey, Esq, Attorney, Maynard Cooper & Gale; Mr. Ted Kennedy, Former Chairman, BE&K Inc.; Dr. Warren Martin, Chair, UAB Faculty Senate and Professor in UAB School of Business; Dr. Charles Mason, Superintendent, Mountain Brook City Schools; Dr. James Moeser, Chancellor Emeritus, University of North Carolina at Chapel Hill; Dr. David Shulenburger, Vice President for Academic Affairs, National Association of State Universities and Land-Grant Colleges; Ms. Brittany Williams, UAB Student Representative; and Ms. Marcienne Wright, UAB Graduate Student (UAB Focus on the Future, 2009). Over the course of several months, this group met with the schools involved, the faculty, the students, the President, and Provost, and reviewed suggestions posted by these individuals and groups on the realignment website (http://main.uab.edu/Sites/60920/). The Commission was charged

with evaluating various options for realignment and reorganization of the Schools of Arts and Humanities, Natural Sciences and Mathematics, Social and Behavioral Sciences, Business, Education, and Engineering. The Commission was to keep open communication with the UAB community, focus on options that enhance multi-disciplinary educational programs, increase the capacity for strategic investments, maximize efficiencies, and make recommendations on the various options for realignment (Charge to the Commission, 2009).

The ARC presented its recommendations to the UAB community on June 9, 2009. The first option was a College of Arts and Sciences, School of Business, and School of Engineering. The College of Arts and Sciences would be composed of the current Schools of Arts and Humanities, Social and Behavioral Sciences, and Natural Sciences and Mathematics, and Education. The second option was a College of Arts and Sciences, School of Business, School of Engineering, and School of Education. The final recommendation by the ARC was a School of Liberal Arts, School of Science and Engineering, School of Business, and School of Education. This option would merge the School of Arts and Humanities and the School of Social and Behavioral Sciences into one unit, a School of Liberal Arts. It would combine the School of Natural Sciences and Mathematics and the School of Engineering into a School of Science and Engineering. The Schools of Business and Education would remain independent (Academic Realignment Commission, 2009).

According to Davis-Hill's article in the university's electronic news source, *GreenMail*, the final decision presented by President Garrison consisted of a modified version of option one. Three schools—The School of Arts and Humanities, the School of

Social and Behavioral Sciences, and the School of Natural Sciences and Mathematics—would form one College of Arts and Sciences. The School of Education was to retain its school identity as a distinct unit within the new college. Davis-Hill (2009) reported that the President noted the following:

> Nineteen of the nation's top twenty-five research universities use the college organization and nomenclature for the assembled disciplines in arts, humanities, and sciences that form the core of a liberal arts education. While many universities have colleges of arts and sciences, so far as to be determined, UAB will be the first major research university to integrate a school of education within such a college. (para. 5)

When asked at the realignment reveal presentation who ultimately made the choice for realignment, Dr. Garrison clearly stated that she made the final decision.

The Provost at the time, Dr. Capilouto, followed Dr. Garrison's remarks by asking faculty to nominate internal and external candidates for the interim dean position of the new college. The Provost also commented on the benefits of the realignment. Dr. Capilouto noted there would be "enhanced service to students leading to improved retention and graduation rates, broader opportunities for forward-looking strategic investments by consolidating support services, and a bold, innovative approach to twenty-first century learning and teaching challenges" (Davis-Hill, 2009).

The new dean of the College of Arts and Sciences was to be the person charged with implementing the realignment. According to the interim dean's job description posted on UAB's Focus on the Future website, the College would have an operating budget of $54 million with approximate enrollment of 6,500 students and 70 degree

programs: "The interim dean's primary focus was to develop a community of scholars who will build upon UAB's record of achievement and excellence through teamwork and innovation. Working with various constituents, the interim dean was to lead the realignment and integration of essential academic, administrative, and financial operations for the new college" (UAB Focus on the Future, 2009). After an extensive search, a permanent dean replaced the interim dean.

The final decision to realign was considered by top administrators. Dr. Garrison and Dr. Capilouto implied that the realignment would be the best outcome for students. The realignment has and/or will affect everyone who is a part of the UAB community. It has/will, however, more specifically affect deans and support staff. Realignment means change, and because of this change, certain elements within the affected schools were to be reconsidered. According to administrators, the issue of faculty tenure (how it is awarded) was to be decided by the faculty within the schools. The decision was made and implemented the first of January 2010. The realignment decision makers met with constituents and heard their concerns throughout the decision-making process.

Some individuals negatively view academic realignments or have concerns about them. Gumport (2000) argued when universities adapt to market pressures administrator rationales could undermine traditional university values. Some may fear that the quality of education may suffer because of administrative decisions to reorganize during proration or budgetary cuts. Aronowitz (2000) argues, "the university administration has devolved into the means by which the machine runs smoothly, which translates into fund raising and crisis management" (p. 159). Aronowitz said institutions now resemble private corporations in that they have taken on a corporate model. Aronowitz further

explained that administrators have gained more power and have more of a say in departmental decisions such as restructuring, faculty decisions, classroom size, and workloads. Anxieties over academic departmental restructuring have been documented. Mills et al., (2005) examined this type of reorganization. The authors' findings suggest realignments are not entirely advantageous. They note that many faculty members within the new department may find it difficult to connect in forming the culture and identity of the new unit (Mills et al., 2005).

Although the concerns of those opposed to realignment may be legitimate, in order to better serve and educate students, improve interdisciplinary research, and create better efficiencies, academic reorganizations might be necessary. The academic realignment at UAB came during a time of limited resources thus creating a need for change in structure and better efficiency. The impact of the academic realignment on the newly formed CAS was examined in this study.

Chapter 2

Review of Literature

Introduction

This study focused on the impact of an academic realignment that occurred during times of financial constraint on an academic unit at a public doctoral-level research university in the southeastern United States - UAB. A particular focus in this study was to asses data related to the stated outcomes provided by university administrators for the realignment 1.) Improve interdisciplinarity, 2.) Enhance student services/strategic investments, and 3.) Create financial efficiencies. To provide background for this study, the emphasized literature in this chapter primarily related to the history of higher education, drivers of academic realignments in higher education, higher education leadership issues associated with realignments, the process and impact of change in organizations, and intended outcomes of realignments stemming from planning and decision-making in higher education.

History of Higher Education

Times of reduced resources often require organizations to restructure. Colleges and universities are not immune to the discomforts brought on by limited or reduced

budgets. Academic institutions most recently began experiencing great financial constraints around 2008.

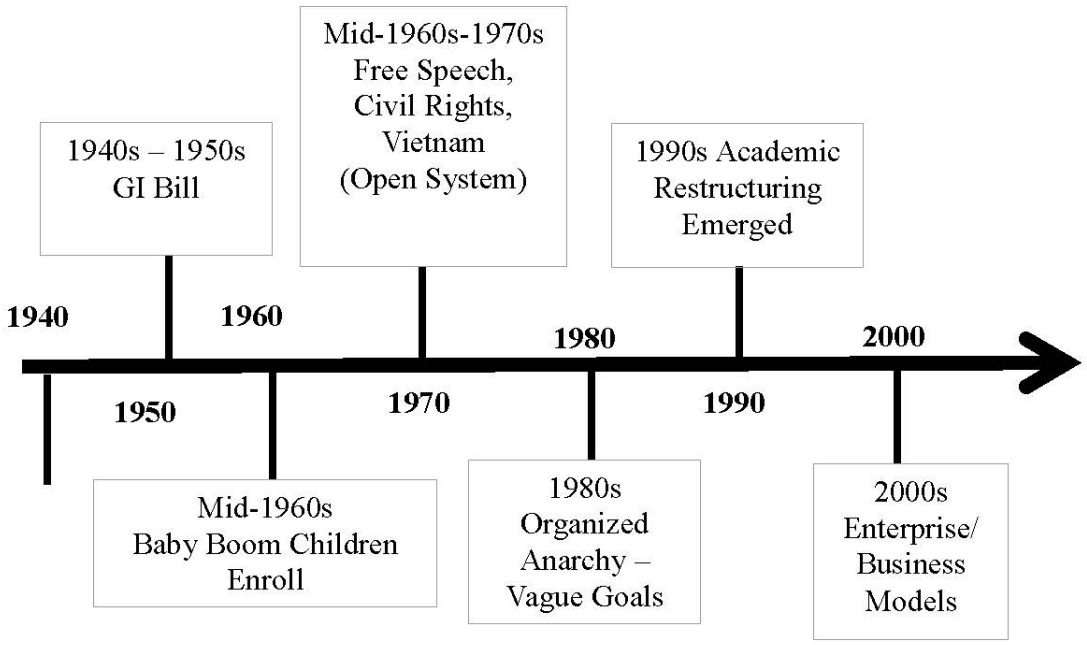
Mayer (2011) included the following in his dissertation:

> The unprecedented economic collapse in the financial markets during 2008 and 2009 is reportedly the worst that the United States has experienced since the Great Depression. These conditions, along with the current protracted weak U.S. economy, have exerted significant financial pressures on both for-profit and nonprofit organizations, including the higher education sector. (p. 3)

Although these economic pressures are currently changing many higher education institutions in the United States, this is not the first time that change has occurred for this field. Significant contributions to the field of higher education were made before the 1940s, but few of those contributions were widely published. Additionally, until sometime after 1960 “higher education was not yet a legitimate field of scholarly inquiry” (Birnbaum, 2000, p. 30). Thus, only significant changes or trends that occurred over an approximate span of the past fifty plus years are included in this literature review. Attempting to cover all changes throughout the history of higher education is far too broad to effectively discuss given the study’s scope. Figure One addresses some of the major historical events and theories that shaped higher education and university administration since the 1940s.

Figure One

Higher Education Timeline – PostWWII



Organizational and management theories. Peterson's (1998) study analyzed the more recent history of postsecondary education using a contingency viewpoint (i.e., an institution is impacted by changes in its environment and the changes affect its internal configuration and processes). Peterson noted four key models in his work from which his contingency perspective was derived: change models associated with societal conditions, environmental conditions, industry conditions, and institutional/managerial pressures for change. The first model examined the changes in society that have affected higher education as an industry. Social, political, legal, or economic changes are societal factors that have shaped higher education institutions over time; although it is important to note

that these factors also impact the external environment, which, in turn, can also influence colleges and universities (Peterson, 1998). Meyer's (1978) institutional theory, which included the key idea of organizations being determined by their "social and political environments" was an appropriate lens from which to examine change in higher education during this time (p. 2).

The second model that Peterson (1998) examined looked at how the impact of environmental influences shaped higher education as an industry. He suggested the following:

> Changes in the higher education industry—from traditional to mass higher education, then to postsecondary education and now to a postsecondary knowledge industry—have been accompanied by increasing complexity and competition and have changed the ways in which we view colleges and universities as organizations. (p. 3)

Peterson used the term industry to mean a grouping of similar institutions that have like resources, clients, and products/services. An article by Gumport (2000) corroborated Peterson's examination of higher education as an industry. Gumport noted, "The macro trend is in essence an historical proposition that the dominant legitimating idea of public higher education has been moving away from the idea of higher education as a social institution, and moving toward the idea of higher education as an industry" (p.70).

Peterson identified two other schools of thought for his third model for establishing his contingency perspective: resource dependency theory and strategic choice models. Pfeffer and Salancik's (1978) resource dependency theory posits that organizations are interdependent on resources, particularly from the organization's

external environment. Additionally, Peterson used Miles and Cameron's (1982) work on strategic choice, which was about the degree of 'turbulance' or the level of the rate of predictableness, to further understand alterations in the environment.

The final model for Peterson's study examined the internal pressures for change. He referred to this model as the "conceptual model for understanding the institution as (an) organization that emerges" (p. 4). Peterson indicated that within this framework, the effectiveness or performance of institutions is examined.

Shift from traditional to mass higher education. As his study continued, Peterson (1998) examined the evolution of colleges and universities as organizations. Before the end of the Second World War, institutions of higher learning more closely resembled traditional public and private entities ranging from 4-year colleges to doctoral-degree granting institutions which included some professional institutions. At this time, community colleges did exist; however, they were usually 2-year branches of 4-year institutions (Peterson, 1998). Following the war, traditional higher education saw a continuous increase in enrollment that persisted until the 1960s. As soldiers returned home from WWII, institutions saw an increase in enrollment as a result of the GI Bill. In 1947 the President's Commission on Higher Education called for postsecondary training for every high school graduate, which established a context for expanding public universities and colleges. The commission recommended establishment of community colleges in each state, and it advocated growing enrollments. This timeframe, as Peterson (1998) identified, was when the shift from traditional higher education to mass higher education occurred. This change was brought on by the arrival of colleges and

institutions and by new organizations and the increased demand of customers (e.g., students) (Thelin, 2004). In 1960, the state of California created the first statewide master plan for higher education, and other states soon followed (Birnbaum, 2000; Thelin, 2004).

In the mid-1960s, the postwar "baby boom" children began to reach college age. This shift caused a second wave of increased enrollments. This increase caused growth in the types of higher education institutions by way expansion and innovations. The term post-secondary was being used to describe institutions of higher learning because it better reflected the growth, expansion, and diversity of institutions during this time (Peterson, 1998; Thelin, 2004). During the 1960s, facilities and resources for higher education were growing. Peterson noted that "although a period of rapid growth (by way of a transition to industry and a favorable environment), it was clearly one that was predictable and expanding" (p. 5). The two main hurdles for institutions of higher education to overcome during this time were "to provide direction for their growing or new institutions and to be more accountable for the human, facilities, and financial resources they required" (Peterson, 1998, p. 5).

Red tape. The 1960s were a time in which more bureaucratic and formal-rational models were formulating in higher education. Structure, management, and resource models for higher education were being derived from the theoretical frameworks provided by Max Weber and Chester Barnard (Stroup, 1966). Peterson (1998) noted the following:

> Consistent with the managerial press for public accountability for needed resources and the growth of the formal rational model, the primary indicator of institutional performance focused on inputs and resources—counting students, faculty, books, facilities and money. Not only did public agencies demand it, but it was also *the sine qua non* of accreditation during this period. (p. 6)

Much of the bureaucratization was the result of the federalization of universities. One example is the GI Bill. In order for institutions to receive GI Bill funds, the institutions had to be federally approved (Thelin, 2004). The first measures of assessment for qualification of approval came in the form of voluntary accountability on the part of the institution which became the catalyst for regional accreditation boards such as the Southern Association of Colleges and Schools, the Western Association of Schools and Colleges, the North Central Association, etc. (Thelin, 2004).

External pressures and students' voices. During the mid-1960s and into the early-1970s multiple societal issues arose—the Free Speech movement, the Civil Rights movement, and the Vietnam War. All of these issues involved or affected higher education in some way. Peterson (1998) noted, "College and universities were no longer conceived just as purposive, rational, or collegial organizations relatively free of external influence or conflict" (p. 6). Institutions were now being observed through an open-systems lens. Open-systems theory suggests that organizations are dependent on the environment. Katz and Kahn (1978) wrote, "The fact that organizational structure is created and maintained only as the members of the organization interact in an ordered way suggests a high degree of openness, a persistent and inherent vulnerability to forces

in the organizational environment" (p. 754). The authors likewise noted, "To call organizations open systems means to expect internal change in response to external events" (Katz and Kahn, p. 770). Peterson noted that during this time, "despite their basis in peer judgment and a quality focus, the notion of a systematic, quantifiable use of reputation as a performance criteria became part of the higher education scene" (p. 6). Keller (1983) wrote "While the balance of power in our Madisonian federal government has been tilting since the 1930s toward the executive branch, presidential power in U.S. higher education has gradually diminished before the buildup of strong faculty power and, since the 1960s, the rising power of students and outside agencies" (p. 27).

During the 1970s, more discretion was awarded to students in terms of decision-making and policy-influencing power. This change, including changes in institutional typology, sponsored research, funding patterns, and student financial aid, had altered "business as usual" for higher education institutions (Peterson, 1998; Thelin, 2004). These policy changes were a result of the economic recession of the early 1970s and the final stages of heightened enrollment brought on by the postwar baby boom (Peterson, 1998). Peterson stated, "The institutional challenge of this redefined postsecondary industry and less supportive environment was to enhance the need for institutional efficiency and to stress a greater market orientation in seeking student enrollments and other resources (p. 7). Management of institutions had not been tested during times of serious adversity until this point. Thelin noted, "The prospect of declining high school graduation populations in some regions of the country, combined with double-digit inflation, rising energy costs, and an expensive intractable campus infrastructure, signaled the need for change" (p. 337). The new management models that emerged were

fact based. Steps to improve management, data-driven decision making, differentiation among institutions, and the collection of standardized data came about through the Carnegie Commission on Higher Education and the federal government's development of the Higher Education General Information Survey (HEGIS) and then the Integrated Postsecondary Education Data System (IPEDS) (Thelin, 2004). Institutions began collecting and storing large amounts of quantitative information as a result of these efforts to standardize data for higher education (Birnbaum, 2000; Peterson, 1998). As a result, these efforts also increased competition between institutions. Furthermore, Birnbaum (2000), warned that "Responsible advocates of quantitative approaches (must) acknowledge that many higher education outcomes are simply not susceptible to description in quantitative terms" (p. 25).

Improved economy and need for planning. In 1979 Mortimer and Tierney wrote a visionary article on the three Rs of the 1980s—reduce, reallocate, and retrench. According to Peterson (1998), Mortimer and Tierney's foretelling came true. Peterson noted, "Despite the improvement of the economy, it was apparent that long-term enrollment and financial constraint would become the key condition of the 1980s" (p. 7). Cohen, March and Olsen (1972) described American universities as organized anarchies. They noted that an organized anarchy consists of an organization where decisions are made without reference to steady and common goals (p. 1). Cohen, March, and Olsen further described their leadership model for organized anarchies as the garbage can model of organization change. These authors wrote, "To understand processes within organizations, one can view a choice opportunity as a garbage can into which various

kinds of problems and solutions are dumped by participants as they are generated" (p. 2). Cohen, March, and Olsen found that the garbage can model for decision making is comprised of an intertwined process involving a variety of factors including "problems, solutions, and participants" (p. 16). Another approach from this era was the creation of strategic models, plans, and/or approaches (Keller, 1983; Peterson, 1998). It was apparent that institutions needed to be more than resourceful; they needed to become adjustable institutions that thought about themselves as strategically planned organizations with a market function within the higher education industry (Peterson, 1998). As a result, a trend towards institutional effectiveness and institutional assessments emerged.

Emergence of business models. In addition to the need to view institutions as academic enterprises and not merely just bureaucratic organizations, institutional culture arose as another facet to measure at colleges and universities (Peterson, 1998). Leaders in higher education began seeking to understand their organizations as a whole. Thus emerged the Total Quality Management (TQM) movement in higher education. Boje and Winsor (1993) examined TQM as a version of Taylorist scientific management principles. One way to improve efficiency and enhance the student experience was for colleges and universities to spend money up front (invest) by way of improving student services that would help students persist and achieve academically (Thelin, 2004).

Emergence of academic restructuring efforts. As a result of this late 1980s school of thought, which stemmed from efficiency efforts, academic restructuring emerged (Gumport, 1997). Academic restructuring came into focus in the 1990s. Peterson (1998) noted, "Institutional performance criteria during the 1990s saw a major shift from the managerial and quantitatively oriented efficiency and effectiveness focus between the mid-1970s to the mid-1980s to a more serious examination of the quality of student learning, faculty performance, and academic outcomes in the early 1990s" (p. 8). Parker (2011) stated, "From the late 20th century onwards, many universities in developed countries have experienced an arguably exponential rate of change in their environments, structures and processes….They have been launched into a global educational market, and required to generate more actively their own constituencies and resources" (p. 434).

By 2000, many universities had persevered through the sometimes flourishing and sometimes difficult decades of the past and had become the largest employers and landowners in the cities and states where they were located (Thelin, 2004.) During this time, institutions had become subject to careful review by federal, state, and local governments as well as regional accrediting organizations. Because of the vast and growing size and breadth of colleges and universities during the first decade of the twenty-first century, government agencies were beginning to ponder why higher education institutions should receive tax exemptions (Thelin, 2004). State support was beginning to wane. Although not accompanied with detailed data "One president of a Big Ten university, for example, noted in the *Chronicle of Higher Education* that the percentage of the university's operating budget borne by the state government was

greater in 1914 than in 2001, having gone from 75 percent just before World War I to about 19 percent at the start of the twenty-first century" (Thelin, p. 360). In 2004, Thelin wrote the following:

> One explanation (of continual complaining about funding by university presidents) that perhaps partially reconciles the paradox of such hunger amid such abundance is that American colleges and universities have wandered into a state of continual expansion characterized by overextension of functions without clarity of purposes, a pattern that has fostered administrative bloat and other spending excesses. (p. 361)

During the first decade of the 2000s, institutions continued to expand. It was not until the recession of the recent 2000s that institutional leaders began to really focus on higher education as an enterprise and on decision-making and funding models, strategic planning, organizational effectiveness, and academic restructuring/change/realignment for higher education. Mayer (2011) noted that "those institutions which elect to embrace organizational change and adopt more financially disciplined management practices will likely flourish and succeed" (p. 3).

Drivers of Realignments in Higher Education

The economic recession of 2007-08 had global effects in both the public and private economic sectors (Middlehurst, 2010). One trend that seems to be occurring in higher education is academic realignments as a result of economic and budget constraints. As university budgets are tightening, administrators are being driven to reevaluate their academic programs, staffing levels, organizational structure, budget

appropriations, and entrepreneurial endeavors. In turn, the weak economy has begun to redefine higher education funding models to be more entrepreneurial and business-like. The economy is one of the major catalysts for change in higher education.

Economy. The amalgamation of a more competitive post-secondary market and heightened pressures from a sluggish economy makes the financial/business case for change vital (Mayer, 2011). Moran and Myringer (1999) examined factors that have caused change in higher education. They found that reduced funding, improving technologies, and an evolving student population caused a shift from elite to mass higher education. These authors noted that this change would cause curriculum and methods of delivery to diversify. One example of the shift they described is academic realignments/restructurings.

According to Facione (2009), universities can survive in this tough economy if they take swift and strong action. Facione noted that leaders need to understand that organizations that cannot adapt will fail. Two key messages that Facione stated are that competition is going to become fierce and that, just as in commercial business, there will be casualties. "If a state's revenues fall by large percentages, given that the priorities of the states are usually public safety, unemployment support, transportation, basic services, and a balanced budget, then something has to go. Often that something is higher education support" (Facione, 2009, p. A36). The issues for higher education institutions that stem from the economic recession are bigger than leadership or administration problems having to do with internal campus challenges and the politics of managing with a reduced budget. Public institutions face the same threats of closing as private sector

businesses (Facione, 2009). "The institutions that will survive, according to Facione, will be those that have built collaborations among internal groups in order to compete externally for students, faculty talent, and financial resources" (p. A36).

Higher education funding. Pressures to restructure academic units from boards of trustees and administrations will continue to rise while financial pressures persist (Mayer, 2011). An increased demand from legislators for colleges to be more "market-sensitive" and "cost-effective" has occurred since the economy weakened in 2008 (Berrett, 2011). Berrett included a response from John W. Curits, director of research and public policy at the American Association of University Professors (AAUP), in his 2011 article. Berrett indicated that Curtis AAUP believed, "that states and administrators are using fiscally challenging times as a pretext to eliminate programs whose positive contributions are not easily quantifiable" (para 7). Furthermore, Berrett included that program reviews are becoming more urgent as a result of the broader economic context of needing to achieve more with less. In an effort to do just that—achieve more with less—higher education funding models are seeing shifts towards becoming more entrepreneurial in nature.

Although cost savings measures seem like wise and obvious steps to take in a financial crisis, Zemsky and Massy (1990) astutely asked, "Who gets the savings when a public institution contains it costs? When public institutions cut costs in response to reduced appropriations, the savings belong to the state. Once the state's budget crisis passes, each institution seeks the restoration of cuts made in its base budget" (p. 16-22). Lawrence and Service (1977) indicated that there are few real incentives to cut costs at

higher education institutions. "Dollar savings may in effect revert to the state treasury rather than being 'freed up' for reallocation to other programs or institution purposes. Implementing cost-saving techniques may jeopardize the operating philosophy or even the survival of an organizational unit" (p. 13). Lawrence and Service also noted that measuring the overall impact of new policies or procedures implemented to create operating efficiencies is often very difficult.

Entrepreneurial shifts. Mayer (2011) wrote, "Many institutional leaders have raised questions about the sustainability of the current higher education business model and are searching for ways of operating their enterprises differently" (p. 16). Leslie and Fretwell (1996) described entrepreneurialism as being critical to colleges and universities. The authors noted that entrepreneurial endeavors "provide new ideas, new markets, and new money. It is also somewhat risky, because it invites failure. But if modulated and directed by a sense of mission and strategy, entrepreneurship might be seen as a form of continuous learning" (p. 231). Tynajala, Valimaa, and Sarja (2003) studied differentiation of market conditions and entrepreneurial responses to the global economy and addressed changes in curriculum as a result of globalization. As a result of reduced state funding, institutional prestige, and the market, institutions within the United States have embraced economic globalization by way of "entrepreneurial partnerships with commercial or nongovernmental organizations" (Williams, 2007, p. 517).

Houghton et al. (2004) noted that higher education institutions are increasingly focusing on "applied research and experimental development" (p. 163). As this type of research grows, attention, funding, and patents might be obtained. In his discussion on

difficult decisions Presidents and Provosts must make during tough times, Aronowitz (2000) wrote, “In some cases, these decisions entail shutting down departments entirely, and then there is the ongoing task of keeping the others on their toes for entrepreneurial openings” (p. 49). Vorley and Nelles (2008) wrote that in addition to teaching and research, the third mission of a university is to be entrepreneurial. “Universities are no longer simply dedicated teaching and research institutions; they are now regarded as the engines of the knowledge economy” (p. 120). These authors indicated that change is required in order for universities to adhere to their third mission. Components of this entrepreneurial shift include economic development as well as ties to the traditional components of higher education teaching and research. Williams (2007) noted, “In the USA some universities take an upbeat view of economic globalization and are embracing change through entrepreneurial partnerships with commercial or non-governmental agencies” (p. 517). Another entrepreneurial trend has resulted by way of partnerships between governments and institutions (Vorley and Nelles, 2008). The authors noted that this third mission has become fundamental to public policy.

Enterprise/business models. The common business model for higher education in the United States (i.e., growing programs and raising tuition) has been challenged and may need to be changed to stabilize its financial foundation (Mayer, 2011). Moody’s (2010, as cited by Mayer, 2011) study on the external conditions and academic institutions revealed the following:

> The current prevailing market conditions in the higher education sector—increased competitive pressures, reduced financial flexibility, instability of net

> tuition and enrollment patterns, reduced endowments, declining population of college age students, and diminished levels of household net worth—have all resulted in the need for colleges and universities to restructure their business models to ensure increased financial stability. (p. 21)

Parker (2011) noted that institutions have become corporatized by way of "top-down corporate framework control mechanisms, by an orientation towards financial short-term targets, and by adapting to private sector business culture" (p. 447). Ahlers-Niemann (2011) discussed the shift in higher education towards business models:

> Anxieties resulting from societal and economic changes, an identity vacuum, and a lack of relatedness have become unconscious driving forces for the restructuring and change of universities. In reaction to increasing economic pressure, which, in the present context, can be seen as a social defense, departments mutate into profit centers, universities into learning factories, and students into customers. (p. 1)

One way to assess institutions as they become more business-like is to measure expenses and revenues. Lawrence and Service (1977) noted, many if not most management practices stem from analyses of costs and outcomes. The authors noted that an organization's costs and or resources are often measured by budget allocations, appropriations, expenses, and budgets. Alternatively, Lawrence and Service noted that outcomes are measured by goals that are translated into measurable objectives.

Higher Education Leadership Issues Associated With Realignments

Clark (1998) wrote, "universities of the world have entered a time of disquieting turmoil that has no end in sight (p. xiii). Middlehurst (2010) indicated that Clark

interpreted this to mean that universities are facing challenging years ahead because of increasing expectations, accommodating more students who are from more diverse backgrounds, with broader specializations, multiple hierarchical levels, and heightened responsibility to stakeholders. Middlehurst stated that Clark predicted that this "demand overload" combined with a lag in institutional response capability, would lead inexorably to systemic crisis unless "adaptive responses" at system and institutional levels were adopted" (p. 75). Increased demand and a poor economy have put pressure on institutional leaders to rethink their university's operations, programs offered, and structure. Solid leadership and sound administrative decision-making are of the utmost importance at this time. Lawrence and Service (1977) discussed the transition of higher education leaders from administrators to managers. In their work, they discussed that changing opinions towards higher education, reduced budgets, increased accountability, competition for resources, and reduced budgets created a shift in how university leaders viewed their institutions and affected the way and types of decisions that they made. The authors noted, in particular, the emergence of using quantitative methods for data-based decision-making in higher education.

Administrative decision-making/leadership. Difficult budgetary times, a weakened economy, and political pressures have made academic realignments a valid agenda item. Gumport (2000) wrote, "Without a doubt, these are difficult times for those who manage higher education institutions…(and) deliberations over academic restructuring and resource allocation seem endless…(but) doing nothing is not an option" (p. 68). The massive economic downturn is pressuring university administrators to "go

beyond the tactical and adaptive and seek potentially generative responses" (Middlehurst, 2010, p. 79). The new political economy of higher education demands that administrators view problems as business-minded leaders to find business-type solutions (Rich, 2006). Rich noted the following:

> Universities require administrators who effectively balance, unite, and integrate business and academic priorities; respond creatively to demands for increased market competitiveness in ways that support long-term academic objectives; and connect the strategies for improvement of institutional infrastructure and fiscal resources with the requirements for strengthening the ingredients of academic progress. (p. 41)

These difficult times call for innovation; however, such revolution involves many complicated leadership issues.

Three common leadership responsibilities of higher education administrators are decision-making, strategic planning, and ensuring organizational effectiveness (Lawrence & Service, 1977; Johnson, Bernard, & Kidwell, 1998). University leaders are faced with many difficult situations regarding personnel, budgets, politics, curriculum, organizational culture, and, when necessary, organizational change or restructuring. A good leader can understand the current environment within his or her organization and can recognize when change, restructuring, or academic realignment is needed. Academic realignment in higher education should involve careful consideration. The decision to realign academic departments or schools can change the culture within an organization. Administrative decision-making is an important skill for any university or college leader.

Eddy (2010) noted that students, faculty, and staff draw their conclusions about what is happening on their campuses by how the institution's president communicates his or her vision and plans. Leaders, such as university presidents, have the ability to frame information for constituents. The way information is conveyed on campuses is becoming more important during the current period of change in higher education as transitions in leaders occur and as strategic planning is implemented. The purpose of Eddy's study was to explore how leaders communicate and frame information on campuses. The central question was "How do leaders frame meaning on their campuses to make sense of ongoing change" (para. 03). The sample for the study was purposefully selected to find participants from various regions of the country who were presidents, faculty, staff, and senior administrators from nine community colleges. The specific sites that were chosen had each undergone a form of organizational change. Eddy used a hermeneutic approach for her case studies. She collected data in the form of semistructured interviews and used the concept of sensemaking to analyze the data collected. The analysis involved looking for patterns in the interviews. Each interview was audiotaped and transcribed for cross-case analysis. Eddy found that framing occurred in many formats and noted how leaders relay their messages.

The flow of communication is crucial to running an efficient and effective institution, especially when attempting to implement a change effort. In addition to effective communication, administrators need to recognize the appropriate time to implement changes within their organizations. Galligan and Burgess (2005) conducted a study based on a change order for arts education issued by the Governor of Rhode Island, Lincoln A. Almond, in 1999—Executive Order 99-2. The purpose of the research was to

discuss whether or not the task force used what well-known policy analyst, John Kingdon, referred to as a policy window to move its recommendations on the impact of arts in education toward decision and action. Galligan and Burgess posed the following questions using Kingdon's model as an analytical framework.

> (1) Did a policy window for arts education open in Rhode Island between 1999 and 2003? (2) What changes actually took place and how so? (3) Were the three separate streams that Kingdon identifies actually in place? (4) And if they were, how and when did they shift into a pattern that resulted in policy change? (5) Is the use of Kingdon's streams the appropriate policy model guiding inquiry into the ALN's formation, or does another framework emerge as more advantageous. (p. 3)

The authors noted that the actions of the task force itself provided the answers to the central questions. The task force conducted field surveys, reviewed scholarly research, met with national leaders, and invited public conversation on the topic. The task force agreed upon four main points and outlined goals for k-12 schools in Rhode Island. The authors concluded that a policy window might not have been utilized by the task force; however, a future policy window may emerge from its recommendations.

Policy windows are an essential aspect of implementing an organizational change or reform. Universities and colleges are typically structured environments where academic faculty and staff identify themselves within their discipline or department. An organizational realignment can result in a change in the way departments are recognized. A sound administrative decision-maker will take note of when his or her institution is ready for such changes and will effectively implement them then. Many institutional

leaders use strategic planning to guide their institution for the years to come and use it as a framework to guide their decision-making.

Academic realignment from the frames of leadership perspectives. Bolman and Deal (2008) offered a theoretical framework for understanding a leadership challenge before deciding on a solution to a problem. Their decision-making model is helpful in understanding how a leader may view or address a dilemma such as deciding whether to academically realign an aspect of his or her campus. The framework consists of "four frames showing how a situation can be viewed in at least four ways" (p. ix). This model may be helpful to leaders in the process of implementing a change or who are in the process of creating or revising a strategic plan.

Bolman and Deal (2008) identified the four frames of organizational leadership as: structural, human resource, political, and symbolic. While discussing the structural frame, Bolman and Deal noted, "Leaders must know when the rules of the game change and redesign the structure accordingly" (p. 116). University leaders have the responsibility of recognizing where change is needed in order to best serve students and to have more efficiency with the budget. Sometimes change comes in the form of an academic realignment.

The second frame identified by Bolman and Deal (2008) is the human resource frame. This frame of leadership focuses on the people within an organization. When reframing an academic realignment as a leader, using the human resource thought process can be helpful in easing the tension that could be generated between faculty and administrators at the school and department levels. Tension could emerge as a result of

fear and anxiety as well as a concern for the people within those levels whose positions may be eliminated. According to Maslow's hierarchy of needs the most basic needs are physiological and safety needs and must be met first (Maslow, 2000). Because of changes as a result of the realignment, individuals at these levels might became apprehensive about the safety of their jobs, employees, tenure, and budget. When reviewing a realignment using the human resource frame, it is easier to understand the personal side of the change. As an administrator, one might look at the few jobs that may shift or be eliminated as an effort to reduce duplication and think of them as a whole as insignificant, because compared to the entire university workforce, only a minimal number of individual jobs were affected. Using the human resource frame is helpful as a decision maker to understand the employee point of view.

Bolman and Deal's (2008) third frame—the political frame—entails the idea of using power, politics, and conflict within an organization to make decisions. It is important as a leader to understand the political framework within one's organization. In regards to academic realignments, internal and external pressures for change need to be recognized or considered.

The basic elements of the political frame are "enduring differences, scarce resources, conflict, and power" (Bolman & Deal, 2008, p. 425). Academic realignments today seem to be triggered by several or all of these political factors. Resources at universities during 2008 to 2012 were scarce because of proration and a nationwide recession. Conflict could emerge over the realignment between the schools involved and the university's administration. Ultimately, the decision makers for a university

realignment should take full responsibility for the changes that occur as a result of an academic realignment.

The final frame discussed by Bolman and Deal (2008) was the symbolic frame. This frame centers on perceptions, symbols, roots, and traditions. DiMaggio and Powell's (1983) symbolically framed idea of mimetic isomorphism was discussed in Bolman and Deal's book. DiMaggio and Powell (as cited in Bolman & Deal) noted, "Mimetic isomorphism occurs when one organization simply copies another, as when a university of modest reputation adopts a set of requirements borrowed from those at Harvard or Yale" (p. 298). Although, it is important to note that structurally aligning an organization to model it after another high achieving institution may not always achieve the desired result. Leaders can establish buy-in and legitimacy during and after a change through symbolically framing the situation. "When production and results are hard to measure, correct appearance and presentation become the prevailing gauges of effectiveness" (Bolman & Deal, p. 297). Perhaps a leader might decide to implement a realignment as an attempt to better align the university or academic unit's organizational structure to that of another peer institution. Using the symbolic frame is helpful to the stakeholders and decision-makers involved with the change in understanding the message that the structural decision, realignment, might send within the university and externally.

Leadership typologies. Effective leadership requires followership. In order to acquire followers, leaders should ensure that they are continuously improving themselves and their stakeholders, thus improving their organizations as a whole. Gill, author of *Theory and Practice of Leadership,* noted that "Mutual respect is not gained by punishing

those responsible for mistakes. It is gained through recognizing what people have to offer and involving them in problem solving and decision making, for example in strategy formulation" (Gill, 2006, p. 13). This quote encompasses many important concepts or facets of effective leadership—creating a shared vision, using transformational leadership, establishing collective trust, and valuation or understanding, as a leader, the values and beliefs of stakeholders and making decisions based on that understanding (Gill, 2006).

According to Berson, Shamir, Avolio, and Popper (2001), "Visions clarify a set of ideals, articulate a sense of purpose, and highlight the uniqueness of an organization" (p. 55). Creating a shared vision is an essential component of effective leadership. Visionary leaders help to move employees and their organizations toward achieving shared goals. Gill (2006) noted, "Vision is not the preserve of top management only, but a feature of effective leadership at any level, in any function, in any organization" (p. 99). While creating a vision is important, leaders should practice and encourage continuous improvement in strategic planning efforts. The strategic plan which contains an organization's vision, mission, goals, and objectives should be revisited regularly in order for followers and leaders to understand where the organization was, where the organization is now, and where the organization is headed. Often leadership style is reflected in vision statements.

There are many theories and styles of leadership found in the literature. Three styles; however, continuously emerged—transactional, transformational, and laissez-faire. Transactional leaders typically expect employee productivity and dedication to be based on employee reward. Laissez-faire style leaders often wait for problems to emerge

or refrain from intervening. Transformational leaders are charismatic leaders who inspire followers to work toward common goals and visions for the good of the organization. Berson et al. (2001) found in their study on the relationship between leadership style and vision strength that "effective transformational leaders may emphasize both instrumental and inspirational themes in their visions" (p. 67).

Involving stakeholders in strategic planning efforts such as creating organizational visions, missions, and goals, by way of a transformational style leadership is critical to establishing collective trust. Forsyth, Adams, and Hoy (2011) noted that trust is established through benevolence, reliability, competence, honesty, and openness. A leader can identify when trust is established by noting whether or not individuals within the group or organization are willing to take risks together or show vulnerability. Collective trust is defined as "a stable group property rooted in the shared perceptions and affect about the trustworthiness of another group or individual that emerges over time out of multiple social exchanges" (Forsyth et al., 2011). Collective trust cannot be established by one act of the leader. A leader must continually improve collective trust by demonstrating trustworthy behavior. An effective leader will model behavior that builds trust.

Valuation is another important aspect of effective leadership. Willower and Licata (1997) noted that a visionary leader is someone with the "ability to imagine desirable future states along with possible paths to their attainment" (p. 29). Valuation is the way in which this type of leader assesses the possible paths to vision attainment. Valuation is "the process of choosing from and implementing conceptions of the desirable with an awareness of and sensitivity to their potential consequences for a

variety of individuals and groups, as well as the multiplicity of values typically affected by implementation" (Willower & Licata, 1997, p. 26).

Strategic planning. One reason institutional complexity and bureaucracy was challenged in the 1960s and 1970s was because colleges and universities were functioning without defined missions (Thelin, 2004). Thelin (2004) noted, "About the only approximation of a mission that the research universities could state in the 1960s was a commitment "to advance knowledge" (p. 314). This era created a rise in the call for strategic planning. Strategic planning is an organized approach used by an organization to plan and adapt to anticipated changes (U.S. Government Accountability Office, 2006). Welsh et al. (2006) examined this type of planning in regards to organization reform and noted that as resources become more constrained, the need for strategic planning in higher education has increased. One factor that has complicated strategic planning is government efforts to reform public higher education. Welsh et al. explored the sources of faculty and administrative support for creating and implementing planning activities in the setting of higher education reform prompted by a governmental entity in the United States. They attempted to answer three research questions: 1.) They wanted to know if faculty and administrators differ in their support of strategic planning activities. 2.) They also explored the variables that affect faculty and administrator support for planning in higher education. 3.) The researchers hoped to answer whether the data suggested any institutional practices that could help to gain the support of faculty and administrators for strategic planning activities in the context of higher education reform. Welsh et al. found that the data did not support the idea that faculty involved in

governance are more likely to support planning efforts. Additionally, they concluded that the depth of implementation, type of institutional decision making, and support for state reform appear to have an important impact on support for strategic planning. Strategic planning is a useful tool to guide administrative decision making in an effort to maintain and/or improve organizational effectiveness. Perhaps one reason large-scale academic realignments or reorganizations occur is because, "traditional strategic planning processes that produce incremental, rather than substantial or transformational, change are no longer relevant" (Johnson et al., 1998, p. 157). Johnson et al. recommended that universities use a more transformational or comprehensive approach planning strategically. Guarasci and Lieberman (2009) noted, "Beginning with analyses of the assets and needs of its host community and of the student population it serves, a college can develop and implement a strategic plan that capitalizes on opportunities uncovered and significantly increases the likelihood that it will maintain momentum in troubled seas that are taking other ships down" (p. 25).

Organizational effectiveness. Institutional leaders at colleges and universities are focusing more on identifying their primary proficiencies and unique areas of distinction such as restricting the program growth, redistributing resources to better match the institutional mission, streamlining operations, and maintaining a balance between existing and impending needs (Chabotar, 2006). Implementing an organizational realignment or change may result in changes in the organization's effectiveness. Lawrence and Service (1977) indicated that "Effectiveness is a measure of the extent to which desired results are achieved given the resources available. To assess

effectiveness it is first necessary to make explicit what is desirable, i.e. to define the goals of the institution and/or its subunits" (p. 47).

Sohail, Daud, and Rajadurai (2006) focused on organizational effectiveness in their study of Business Process Re-engineering (BPR). The authors noted that BPR is a redesign and reorganization of business activities due to questioning the status quo. The researchers pointed out that BPR is not only an effort to improve education, but it is also a paradigm shift. The authors conducted a case study on the restructuring process to meet objectives of high quality education and training at a private college in Malaysia. The findings of the study pointed out that generally the higher education institution was focused on cost-cutting strategies when implementing a restructure. Sohail et al. found an increase in the number of home courses offered and the use of learning centers. They found a decrease in part-time employment of teaching staff. The academic networks and partnerships that provide knowledge were improved.

Intended Outcomes of Realignments Stemming from Planning and Decision-Making in Higher Education

It is illogical to assume that colleges and university leaders would initiate such a large change as an academic realignment on their campuses without having goals or outcomes in mind. The purpose of planning and strategizing is to create a shared vision and to reach institutional/organizational aspirations. Restructuring could be perceived to be an outcome in and of itself. Other outcomes from realigning may also be sought by university administrators. Organizations undergo structural changes or realignments in

order to meet goals or outcomes. This section will provide some understanding on how and why universities restructure.

Organizational/departmental restructuring/change. Public higher education institutions are operating under business models that more closely resemble the private sector. "Many colleges and universities are increasing their efforts to operate their institutions in a more businesslike manner, with greater efficiency, effectiveness, and financial stability" (Mayer, 2011, p. 4). However, Rich (2006) noted the following:

> The most important restructuring of universities will not be in business practices, but rather in the allocation of academic assets, and specifically in the appointment and organization of the faculty. Universities are communities of scholars; how those communities are constituted, how they operate, and what they produce define the character and greatly determine the success of universities. (p. 43)

As a result of reduced budgets, university leaders who are open to reorganization and strict financial management will enable their institutions to prosper (Mayer, 2011). When restructuring or program closures are necessary, university leaders are often faced with the "challenge of not always having the necessary information, particularly financial data, readily available to support timely and responsive decision-making" (Mayer, 2011, p. 6). Creating financial efficiencies at higher education institutions is complicated. "Reducing costs that have been built into multi-faceted complex institutions over many years is one of the most significant challenges facing the U.S. higher education system today" (Mayer, 2011, p. 19).

Implementing a strategic plan usually requires some kind of organizational change. Many studies have focused on some aspect of organizational change. For instance, Al Zboon, Al Ahmad, and Al Zboon (2009) examined an organizational change--the shift towards a knowledge based-economy. The researchers addressed the problem of educators' being unaware of the reasons underlying the knowledge economy shift. The purpose was to identify these rationales associated with the shift as perceived by educational professionals. They examined these perceptions socially, politically, economically, and culturally by asking questions pertaining to the reasons behind the shift towards a knowledge economy-based education as perceived by professionals and how educational professionals attribute their positions and education to the statistical significance of the difference in rationale means to the shift. The study results indicated that the experts were conscious regarding the shift in education. Also revealed, was the variance in the overall reasons to shift towards the knowledge economy which attributed to the experts' positions and educational levels.

Brint, Proctor, Murphy, Turk-Bicakci, and Hanneman (2009) examined the history of general education models and how they changed overtime. The origins of models of general education within higher education have not been studied in depth. The researchers described and analyzed the requirements and organization of general education in the United States between 1975-2000 at four-year colleges and universities. The study identified four models of general education. It revealed that external factors shape general education with their advocacy of required courses. Additionally, the results showed a link between effective advocacy and underlying changes in postsecondary education, which was a result of greater enrollment diversity. Another

finding of the study revealed that change in the course level was attuned with the differences in the institutional commitments to certain models of general education.

An additional study on organizational change in higher education was conducted by Hoz, Kainan, Bowman, Goldstein and Omri (2003). These researchers noted that the term, academic upgrading, referred to a transformation of all teachers' seminaries into teachers' colleges in Israel. This type of reform had significant effects on all institutions with teacher education programs in the country. The authors examined faculty views, opinions, and ideas associated with academic upgrading at one teachers' college in Israel. The study exposed a gap between the intentions of the individuals pushing for academic upgrading reform and the faculty. As this study, the previous studies, and the few studies following in this section suggest, there are many types of change and restructurings that occur in higher education around the globe.

McKinney and Morris (2010) noted issues associated with an organizational change at the community college level in their study. They explained that typically, the highest degree that community colleges award is the associate's degree; however, some community colleges now offer baccalaureate (CCB) degrees. This shift could have long-term effects for all of higher education in the United States. The authors noted a need for empirical research on the topic. The purpose of their study was to explore the nature and degree of institutional changes that occur when two-year colleges offer CCBs. The researchers asked one question pertaining to how executive leaders at community colleges implement the changes associated with the introduction of 4-year degree programs. Additionally, the researchers posed a question regarding the specific changes in policy and practice that take place as a result of the degree introduction. McKinney

and Morris noted that Kotter's (1996) 8-stage model for implementing organizational change was used as a conceptual framework. The findings of the study showed that introducing CCB programs required drastic changes to existing policies and practices.

The shift towards interdisciplinary research and collaboration on university campuses is often the result of organizational and department restructuring. Gornitzka and Larsen (2004) examined the history of a particular restructuring in higher education. They noted that the number of administrative staff at universities is on the rise. One concern in regard to the additional staff is the distribution of resources. Gornitzka and Larsen conducted research based on a Norwegian study on university administrative staff. The authors sought to shed light on a part of non-academic work at universities and to describe significant changes that have occurred in the recent history of higher education. The authors reflected on the question of whether the development of increased administrative staff should be interpreted as a professionalization of university administration. The authors noted some possible explanations for the structuring of the administrative workforce in universities based on theory related to organizational change.

Another study pertaining to the history of organizational change was conducted by McLendon, Deaton, and Hearn (2007). The researchers pointed out that few empirical studies have been conducted on the origins of governance change in public higher education. The purpose of their study was to empirically analyze why states adopt reforms at certain times. The central question the authors explored regarded the extent to which changes in publicly funded institutions might produce policy change in higher education. The researchers reviewed literature on the subject and then used event history analysis to test how factors such as demographics, economics, and organizational and

political characteristics of states coincided with policy pressures. The authors found support for their hypothesis that reform is driven by changes in the macro-political environment of the states, rather than by state economic or demographic climates or by pressures within higher education systems (McLendon et al., 2007).

Findlow's (2008) research further examined change and restructuring by focusing on academic innovation. She noted that higher educational innovation has become program oriented. Institutional policies and initiatives emphasize, in audit-managerial terminology, how funding requirements address strategic objectives and cite the importance of monitoring innovation. Current critical educational literature has identified these values as dissonant with academic ones. Her study's purpose was to explore matters of culture and of cultural congruence associated with two higher education agendas—audit-driven accountability and academic innovation at a university in the United Kingdom. This study found that academic innovation can be undermined by the same things that undermine general professional satisfaction in higher education—mixed messages about transparency, ideological uncertainty and complex attitudes towards risks that produce stress, perception of non-productive overwork, and lack of trust. The study revealed that the perceptions of these barriers were felt most acutely by the newest staff. The researcher found that displacement of schematically funded and managed innovations appears to decrease the chances of such innovative work becoming long-lasting and effective.

A practical example of higher education restructuring was examined by Mills et al. (2005). A reorganization between 1997-1998 at Plains State University (pseudonym) combined six departments in the College of Education. The change resulted in a new set

of colleagues who needed to create a new culture and establish a normalcy and identification. The establishment of the identity of the new unit was important in order to see its culture and to serve as a guide for faculty. The purpose of the authors' study was to examine the conditions of identity construction and organizational identification as faculty members from multiple departments combined in the new unit. The sample involved in the study was comprised of five faculty members who lived through the implementation of the restructuring and the development of the new department. The researchers kept journals and field notes as a means of data collection. Additionally, documents pertaining to the restructuring were used. The journal articles were analyzed and coded. The researchers found that failure to effectively communicate kept the new department from building a social identity.

A second real-life example of organizational and departmental restructuring was examined by Tabulawa (2007). The author wrote that a new structure was implemented from 1998-2000 at the University of Botswana. Academics felt alienated by the new structure. The general opinion on the new formation was that the balance of power among the various administrative entities on campus had shifted. Most felt that the shift was towards a more corporate management style. Little research has been conducted on how and if the restructure encouraged the shift. The article was an attempt to analyze the restructuring process in both a local and international context. Tabulawa’s study addressed questions pertaining to the formation such as what was the motivation for restructuring and how did it lead to the redistribution of power and authority in favor of corporate management. The author found that the restructure was the result of local and global forces. The restructuring did have an effect on the balance of power at the

institution, which resulted in a marginalization of faculty. Tabulawa noted that "far from being a benign exercise, restructuring was a micro-technology of power redistribution coated with the sugary language of cost-saving, streamlining, efficiency, and effectiveness" (p. 478).

Academic leaders can positively impact an organization undergoing a change with their behavior in order to keep individuals who are affected by the change from feeling alienated or from lacking trust, feelings indicated in many of the previously discussed studies. Guarasci and Lieberman (2009) noted that administrators should incorporate positive components of change throughout the transition process. "Characteristics such as authoritarian governing boards and administrations, secretive decision making by cliques of faculty and staff, and a lack of accountability are not conducive to sustainability" (p. 27). Academic restructurings and realignments are one example of a change that is most successful when positive leadership practices are present. "Presidents and provosts should be the most visible champions of shared institutional vision and momentum; their personal, collaborative, and consistent leadership, particularly during periods of financial stress, is the parent of effective and sustained transformation" (p. 27). It is helpful to examine realignments that have occurred at other institutions because difficult and stressful times, "provide powerful impetus to imagine new futures, to seek new partnerships that open opportunities and add mutual value, and to make good and needed decisions that would have been much more difficult in times of affluence" (p. 30). Understanding steps other institutions are taking during times of affluence and during tough economic times may be helpful to academic leaders and decision-makers.

Examples of realignments from other institutions. Universities around the globe have or are experiencing reduced budgets thus creating a need for strategic plans focused on efficiencies and academic realignments. "Virtually all institutions are forced to respond to economic downturns" (Guarasci & Lieberman, 2009, p. 25). According to Middlehurst's (2010) study examining higher education institutions around the globe during the economic downturn, an institution in the UK implemented funding cuts as a result of a depleting budget. The author wrote about an institution that developed a new strategic plan and underwent a planning session with a 2.5% cut in funding. Middlehurst (2010) examined an institution in the United States that faced a 6% reduction in state funding during the 2009-10 academic year. The institution's president noted "key principles" that should be observed while planning for the future: protect the academic core, retain the best faculty, and continue providing exceptional facilities for research and scholarship. This institution's leaders proposed a plan that would lower the operating budget by 29.3 million dollars and would continue to reduce spending by 58.9 million dollars over an 18-month period. The plan included a revised energy sustainability component as well as a promise to appeal to private charities and competitive research grants. Additionally, the university's academic and administrative departments were expected to "look creatively at untapped revenue sources" (Middlehurst, 2010, p.81).

An example of an academic realignment can be found at Arizona State University (ASU). Capaldi (2009) noted that the university underwent an academic reorganization of its programs in an effort to reduce duplicate course offerings, increase interdisciplinary collaboration, create financial efficiencies, and improve advising services to students. One way that ASU encouraged interdisciplinarity among graduate students and faculty

when reorganizing was to adopt a ‘graduate faculty model’ in 2007 that involved all qualified individuals being able to supervise graduate work. This change improved the number of faculty listed as a part of doctoral programs to 72% (Capaldi, 2009). Additionally, Capaldi indicated that “New interdisciplinary Ph.D. programs allow for as many as 70 graduate faculty members from as many as eight departments” to be involved with supervising students (para. 20). Another change at ASU was the merger of six flexible faculties from five different departments within the School of Life Sciences which produced 11 separate degree offerings (Capaldi, 2009). “The creation of the school eliminated inefficiencies and has been praised by recent reviewers” (Capaldi, 2009, para. 25). ASU also changed its undergraduate advising practices as a part of its reorganization in an effort to improve student satisfaction and improve retention and graduation rates (Capaldi, 2009). Capaldi noted, that before the current budget crises ASU “created the School of Family and Social Dynamics with a merger of some departments” (Capaldi, 2009, para. 30). The creation of the new school did not create financial efficiencies. The author pointed out that saving money takes ‘intentionality.’ Instead, the creation of the School of Family and Social Dynamics only combined staffs thus continuing duplication (Capaldi, 2009). Overall, “The elimination of small colleges at ASU saved approximately $500,000 of recurring expenses for each unit eliminated, and the total saved from the reorganizations was $13.4 million” (Capaldi, 2009, para. 37).

An academic restructuring went into effect in January of 2011 at Wentworth Institute of Technology. This institution’s realignment involved placing existing units into five colleges. The reasons provided for the reorganization were “to address the need to provide multi-disciplinary, project-based curricula,…bring a level of balance and

equity to the size of the administration of each new college...and operate with greater efficiency" (Wentworth, 2010, para. 2-3).

Improved student advising was a result of a change at Wagner College. Better student advising and services were a desired outcome of change at this institution in an effort to improve student retention (Guarasci & Leiberman, 2009). The author's indicated that this institution's change was codified by the rewriting of the college's mission. Wagner began its overhaul of its mission before the economic downturn; however, this change continued during this time. The college revised it strategic plan, focused on improving student services, and worked on engaging its Board of Trustees, faculty, and staff. The authors noted, "While the recession that began in late 2008 may well defer progress on campaign and construction agendas, Wagner's transformation has shifted trustee engagement from a focus on year-to-year survival to maintaining momentum for the long term" (Guarasci & Leiberman, 2009, p. 29).

As indicated by the previous examples, interdisciplinarity is frequently a focus of academic realignments occurring today. Collaboration can create efficiencies by reducing duplicated course offerings among multiple departments across a university campus. It can encourage collegiality and innovation. Furthermore, interdisciplinary collaboration can offer students access to a wider range of fields and course offerings.

Interdisciplinarity in higher education. Interdisciplinary collaboration (interdisciplinarity) is often a goal of organizational change and/or restructuring, especially during difficult budgetary times. Middlehurst (2010) observed a study done by McKinsey (2009) that examined strategy and leadership, "looking closely at the impacts

of uncertainty and volatility in the economic environment" (p. 85). Middlehurst noted that "while different labels, such as 'dynamic management' and 'organization agility' are used, both executives and commenters suggest that in the post-crises era – described as 'the new normal' – organizations require far greater flexibility and a different way of working among members of the top team. Furthermore, the more hierarchical and less collaborative the organization, the bigger the challenges of change will be" (Middlehurst, 2010, p. 85). The desire for collaboration or interdisciplinarity seems to be a common thread through academic realignments of this era.

The problems facing universities today are complex. McArthur and Sachs (2009) explained "solutions to these complicated issues will require theoretical knowledge and practical problems-solving sills, including the capacity to build and lead teams drawn from a variety of disciplines" (p. A64). They noted that reorganizations to form more interdisciplinary departments and schools are beneficial. Universities who remain single-discipline focused will have difficulty overcoming today's challenges. McArthur and Sachs also commented on the current financial predicament and its affect on universities, "the common crisis has placed a spotlight on the world's interconnected fate, and the importance of farsighted, cross-disciplinary decision making as a basic need for a more prosperous future" (2009, p. A64).

Brew (2008) noted that distinctions in higher education are typically made by discipline; however, that trend is changing. These changes have been occurring because of discovery of knowledge, subdivisions of thought, and recognition of new areas of inquiry. Brew's study highlighted the difficulty experienced by academics in assigning themselves to a certain discipline. The study offered examples of ways the academics

negotiate an answer as to where they belong in their fields and at their institutions. Brew asked the following research questions: "How do academicians present their disciplinary affiliation? To what extent do they view themselves as a part of a discipline community? And how is academic identity formed?" (Brew, 2008, p. 424). The study findings noted that the various ways in which academics associate themselves with their discipline, offers insight into the rhetorical work of knowledge production in relation to questions of identity within disciplines. According to Brew, only 21 percent of academicians gave a standard 'unpremeditated' response such as history or economics. Others began to describe their discipline with phrases like 'I suppose' or 'I think you could say' (Brew, 2009, p. 429). The struggle for scholars to identify themselves among a particular field presents evidence that interdisciplinary research is already prevalent and that new disciplines or fields are continuing to emerge.

As a result of increased interdisciplinary work, curriculum is being crossed between disciplines as well. Dannels and Housley Gaffney (2009) conducted a study on this issue. Communication-across-curriculum (CXC) investigation plays a significant role in current academic conversations about communication instruction within and outside of communication and in informing cross-curricular programmatic and administrative decisions. Their project was a systematic thematic analysis that provided a synopsis of CXC inquiry. The study focused on three specific areas: cross-curricular proactiveness, skepticism, and curiosity. Dannels and Housley Gaffney found that CXC scholarship could "expand its relevance and impact by regaining the scholarly proactiveness reminiscent of early research. However, it must do so with a more focused emphasis on empirical rigor, theoretical sophistication, and reflective scholarly

partnerships" (Dannels & Housley Gaffney, 2009, p. 139). Teaching communication across disciplines is an example of interdisciplinary collaboration among faculty. "The importance of communication instruction in other disciplines is no longer questionable; many are beginning to explore the teaching and learning of communication in other disciplines in a scholarly way" (Dannels & Housley Gaffney, 2009, p. 142). The CXC concept involved faculty members from multiple disciplines incorporating communication studies into their own departments or fields.

A study associated with an increase in interdisciplinarity was conducted by Hart and Mars (2009). They noted that interdisciplinary work in higher education over the past 10 years has increased. The professional implications for faculty involved in this type of research and instruction remain uncertain. Faculty members who conduct interdisciplinary work are often pulled between their home departments and those associated with interdisciplinary activities. These dual roles require these faculty members to meet the demands of two otherwise separate departments. In this study, Hart and Mars considered the tensions of interdisciplinary work through an exploration of faculty members who were mutually appointed in education and science. Hart and Mars concluded that jointly appointed faculty members in the two disciplines, science and education, felt an extra burden to be a bridge between the two scholarly cultures, as well as to be an advocate for every aspect of their professional work. This study revealed a challenge associated with interdisciplinary collaboration. Although interdisciplinarity can be beneficial it can also place faculty in stressful situations when working among multiple departments or academic units.

Karal and Bahcekapili (2010) also examined the relationship between work among the science and arts and humanities disciplines. They noted that advances in technology are changing educational approaches. Technological and societal developments over the past 10 years have created a shift towards interdisciplinary cooperation in academia. The purpose of their study was to determine the views of academicians from the faculties of engineering and education at Turkish universities on the subject of interdisciplinary studies. Karal and Bahcekapili sought to answer to what extent interdisciplinary studies should complement each other. Karal and Bahcekapili found that cooperation between the two academic disciplines and each disciplines' participation in improving the quality of education is crucial for interdisciplinary cooperation.

Additionally, Tucker (2008) examined interdisciplinary collaboration between the arts and sciences, specifically, in doctoral social work education. He noted that an observation by British scientist and novelist C.P. Snow revealed that there is a split in educational systems between two forms of intellectual inquiry—the arts and humanities and the sciences. Snow raised important questions about the structure and adequacy of curricula in schools and universities but also about the prospects of applying advances in knowledge to the requirements of solving social and economic problems in the world (Tucker, 2008). In recent times, interdisciplinarity between the arts and sciences has become progressively more emphasized as a feature of research in both undergraduate and graduate programs. Tucker's purpose was to address the question of efficacy in doctoral education in social work in the United States. The question asked in the study was "is it viable to ask how the difference between graduate students who have

interdisciplinary training and those who do not affects scholarly orientation and productivity" (Tucker, 2008, p. 118). Tucker's hypothesis noted that the variation in level of interdisciplinarity in doctoral social work education would result in variation in the orientation and performance of graduates. Tucker's research measured for differences and trends across groups in interdisciplinary orientation as measured by publication overlaps in journal use patterns and numbers of related records. The findings supported Tucker's hypothesis and suggested other factors besides how interdisciplinary training affects scholarly orientation and performance.

Interdisciplinary collaboration had been a part of higher education for quite some time. However, during difficult economic times, it often becomes more prevalent when planning strategically at the institutional level. As indicated in this section, increased interdiscplinarity often translates into federal backing in terms of grants and contracts. Interdisciplinarity collaboration can occur at any level (undergraduate or graduate) and has many forms from crossing curriculum, research, and communication between different disciplines.

Impact of organizational change on employees. Organizational shifts and academic restructurings are a part of any growing or evolving institution. It is important to change in order for an organization to stay current or relevant within its given context. While change is necessary and inevitable, it can often have an effect on the individuals it is imposed upon. Bull (2002) noted, "the word 'change' evokes emotional responses in the workplace (p. 11). This author suggested that with solid communication, individuals within the workplace can be positively led in the new direction. Bull indicated that fear

of change can drain employees of motivation and can have other consequences that may develop over time. One way for change makers to alleviate fear of modification among employees is to positively communicate and provide reinforcement. "Employees have nothing to aim for when they are asked to make changes, but they do not know why, or what is expected of them, or how it will benefit them as an individual" (Bull, 2002, p. 11).

Layoffs, downsizing, organizational shifts, restructurings, realignments, the changing of daily operations, and program evaluations are some ways that changes occur in the workplace. All of these types of transitions have the potential to create stress for the affected employees. Brockner, Spreitzer, and Mishra (2004) noted that "the more employees experience stress in the workplace, the more likely they may be to conclude that the organization is not treating them well, by contributing to their experience of stress" (p. 77). The researchers noted that often this conclusion results in employees having less commitment and/or poorer job performance. Brockner et al. (2004) noted that individuals who feel that they have less control on their workplace environments experience the greatest amounts of stress. This concept would suggest, considering that most decisions for change are made by a select few who are top level university administrators, many individuals probably experience higher stress during a realignment or restructuring.

Devos, Buelens, and Bouckenooghe (2007) wrote that many studies show that there is a high rate of failure for organizational change efforts. The authors noted that change efforts often do not succeed because they create high levels of anxiety and insecurity. Through their empirical study, the authors found that "openness to change

decreased dramatically only when history of change and trust in executive management were low" (Devos et al., 2007, p. 607). Borgen, Butterfield, and Amundson (2010) found that "even those workers who report doing well with change experience a myriad of work-related, personal life, attitude and approach, and professional life changes" (p. 2). Change is not always easy, but it is unavoidable for employees at institutions and organizations that want to grow or progress.

Theoretical Framework

The theoretical framework for this research was based on the second edition (2003) of Kingdon's *Agendas, Alternatives, and Public Policies* theory of "shifting streams." Kingdon's initial publication in 1984 had far reaching applicability to policy-making. He proposed a model of "identifiable forces that drive agenda setting" (2003, p. vii). While Kingdon's theory was originated through empirical field research in the political science/public administration/public policy realm, his findings apply to many bureaucratic organizations—a public higher education institution being one of them.

Kingdon noted that often research has offered suggestions as to how administrative decisions or legislative actions are sanctioned or implemented. His research helped to close a gap in the literature on the "pre-decision processes" and how issues emerge on agendas at certain times (Kingdon, 2003, p. 1). Kingdon (2003) defined an *agenda* as "the list of subjects or problems to which governmental officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time" (p. 3).

The research from which Kingdon's (2003) shifting streams theory emerged was based on the "development of public policy over time, concentrating on the areas of health and transportation in the federal government of the United States" (p. 4). Kingdon (2003) gathered data by conducting "247 interviews and by developing 23 case studies of policy initiation and noninitiation" (p. 4-5). The interviews took place during 1976, 1977, 1978, and 1979. Two public policy arenas were selected, health and transportation, in order to improve generalizability.

From his findings, Kingdon (2003) theorized that three types of processes—problems, policies, and politics—influence agendas, each of which—"can serve as an impetus or as a constraint" (p. 18). Kingdon used a variation of the Cohen-March-Olsen (1972) garbage can model of organization choice when considering agenda formulation and creating alternatives to problems. The garbage can model of organization choice helped to explain the myriad of processes with an organization. This model described a choice as a waste receptacle into which answers to problems and challenges are placed when they emerge. Cohen et al. (1972) found that the garbage can model for decision making is comprised of an intertwined process involving a variety of factors including "problems, solutions, and participants" (p. 16). Kingdon suggested that three process streams (the problem, policy, and political streams) flow through the system (organization). The author theorized that the three streams operate mainly "independent of one another, and each develops according to its own dynamic and rules. But at some critical junctures the three streams are joined, and the greatest policy changes grow out of that coupling of problems, policy proposals, and politics" (Kingdon, 2003, p. 19). Kingdon noted that this joining, or as he calls it "coupling," is most likely to occur when

a policy window is opened. The author wrote that policy windows are "opportunities for pushing pet proposals or conceptions of problems" on the agenda (Kingdon, 2003, p. 20). Kingdon (2003) suggested that policy windows are opened by either emerging problems or political goings-on and "thus alternatives are generated in the policy stream" (Kingdon, 2003, p. 20). Kingdon (2003) further described that "while agendas are set in the problems or political streams, the chances of items rising on a *decision agenda*—a list of items up for actual decision—are enhanced if all three streams are coupled together" (p. 20).

For the purposes of this study, an agenda was defined as certain internal and external factors for which university administrators and external constituents deem as pressing issues for the institution in some way. For this study, certain agenda-type issues arose, thus bringing the idea of an academic realignment to the forefront. The agenda items that sparked the idea of an academic realignment can be determined from the intended outcomes stated by UAB's top administrators: improve interdisciplinarity, enhance student services/strategic investments, and create financial efficiencies (Caygle, 2009). One can deduce from the stated outcomes of the realignment that both internal (academic and research agendas) as well as external (economic recession/proration/budget agendas) factors sparked discussion and further investigation into alternatives for realignment. This thought regarding academic realignment ties into the work posed by Kingdon (2003) because he noted that once an agenda is set a number of alternatives for action are posed.

A policy window appears to have opened for administrators at UAB for pushing the academic realignment agenda towards becoming a decision agenda, which, in turn,

ultimately led to the implementation of the restructuring. In UAB's case, based on the three overarching goals articulated by university administrators, one could perceive that Kingdon's streams do flow throughout the organization and did converge for the opening of a policy window. The problem stream for UAB was a reduced budget, the need to improve student services through strategic investments, and the need to improve curricula and research through interdisciplinary collaboration. These needs were determined by the President and Provost. They were determined based on the needs to improve efficiency, retain students, and improve research, all of which could be tied back to institutional funding. One might infer that institutional leaders delved into the political stream by creating efficiencies by way of "downsizing" the number of administrators and faculty. Additionally, the institution's leaders may have seen the realignment as an opportunity to provide more political power for what was originally four schools if these schools were merged or realigned into one large college. The policy stream, in this instance, may have been the idea of an academic realignment all together. Perhaps with the coupling of the political and problem streams the policy proposal idea for an academic realignment emerged, for as Galligan and Burgess (2005) noted, "When a problem is identified and the political environment is favorable, it is vital that the policy stream produce viable alternatives" (p. 3). This study examined the impact of the realignment to determine if it was indeed a viable alternative.

Summary

A review of the literature resulted in the emergence of several major themes—drivers of realignments in higher education, leadership issues associated with

realignments, and intended outcomes of realignments. The research revealed the importance of administrative decision-making in higher education. Because of cost constraints and the need for organizational improvement, many administrative decisions have been made at universities and colleges to implement some form of academic restructuring or realignment. As a result, there has been a trend towards more interdisciplinary research and teaching. The increase in interdisciplinary work has prompted revision in many academic and departmental structures.

Another theme, strategic planning and reform in higher education, emerged from the literature. The articles included noted strategic planning often results in some kind of organizational change as an effort to improve and meet goals set in the plan. An additional subtheme, organizational effectiveness, emerged during the literature review. The effectiveness of institutions and departments can vary when reform or realignment occurs. A review of literature on leadership typologies and styles revealed that some forms of leadership work better than others when attempting to implement a change within an organization.

The studies associated with the topic of academic realignment in higher education revealed several chief findings. Eddy (2010) found, as a result of her study on administrative decision-making in higher education that the ways in which leaders relay their messages makes an impact on cultural identity. Hart and Mars (2009) concluded in their study on interdisciplinarity that jointly appointed faculty members in the two disciplines, science and education, felt an extra burden to be a bridge between the two scholarly cultures as well as to be an advocate for every aspect of their professional work. Additionally, Welsh et al. (2006) found that the depth of implementation, type of

institutional decision making, and support for state reform appear to have an important impact on support for strategic planning. A review of literature on the impact of organizational change on employees revealed that change often creates anxiety and fear among employees and efforts to change are often squandered by the consequences of fear among employees such as poorer performance or low morale. Effective communication from those in leadership positions and other affirmative behaviors can positively impact change initiatives.

This study examined an academic realignment at an institution of higher education during difficult budgetary times. This study may aid university decision makers in answering whether or not this type of change has an impact on the newly formed academic unit. It may also help to establish a common language among university employees at all levels by answering questions pertaining to academic realignments. Additionally, little research has been conducted on steps universities are taking to weather the financial crisis in terms of efficiencies. The study attempted to add to the discussion on this topic.

Chapter 3

Methods

Introduction

In January of 2010 the UAB began experiencing a significant amount of change. The university underwent an academic realignment that consisted of three schools merging (School of Arts and Humanities, School of Social and Behavioral Sciences, and School of Natural Sciences and Mathematics) to form one college: College of Arts and Sciences (CAS). The School of Education retained its school identity as a distinct unit within the new college (Davis-Hill, 2009). Examining the impact of academic restructuring on the newly realigned CAS at the UAB provided a foundation for understanding the effects of realignments at the site institution. Additionally, it shed light on ways to assess change for academic units at the UAB and at other institutions. The study provided insight into the administrative decision for the realignment and the outcomes of the academic realignment which occurred during difficult economic times.

Purpose of the Study

The purpose of this proposed pre-experimental quantitative study was to gain an understanding of the results of the realignment of an academic unit at the UAB during a period of economic hardship by examining changes over time (independent variable) that were tied to the stated purposes for realignment (dependent variables) for administrators, faculty, staff, and students within the newly formed CAS. Administrators at the site

institution noted three main justifications for realignment: to improve interdisciplinarity, enhance student services/strategic investments, and create financial efficiencies.

Data Collection Plan

Information for this study was obtained through archival data that was regularly collected each semester for institutional research purposes. The existing datasets pertaining to administrators, faculty, staff, and students that were used for the purposes of this research included no identifiers. The student data were originally captured as snapshots on the university census day (the last day for students to drop/add a course) each semester. It was originally captured in a student operating system storage/database called Banner. Then, the data were compiled, cleaned, and sorted into multiple securely stored Microsoft Access databases housed within the Office of Planning and Analysis at the site institution. The researcher exported the necessary data from Microsoft Access to Microsoft Excel when needed in order to conduct statistical analyses. The datasets used for the purposes of this research included information on administrators, faculty, staff, and students. The researcher, an IR employee in the Office of Planning and Analysis at the site institution, sought special permission from the Associate Provost for Planning and Analysis to use the necessary datasets (Appendix B). Proper Institutional Review Board (IRB) approval was obtained before the researcher collected or analyzed any data (Appendix C and D).

For the purposes of this study, all data were de-identified by employees within the Office of Planning and Analysis at UAB prior to conducting research. The data were analyzed and reported/published in aggregated form only. Each individual's records

currently stored within the archived datasets were made anonymous with no identifiers linked to participants. Additionally, existing institutional and state public higher education documents and resources that contained no personal identifiers were used during the analysis process for this study.

Variables and Measures

The variables for this research were developed after a review of the literature pertaining to academic realignments during economic downturn and after reviewing literature and personal communications from the site institution (Appendix E). The three main reasons cited for academic realignment were defined as follows:

1. Improve Interdisciplinarity, or the extent to which individuals from different disciplines/programs/departments scholastically collaborate and the extent to which multi-disciplinary instructional opportunities for undergraduate students are heightened.
2. Enhance Student Services/Improve Strategic Investments, or the extent to which resources and amenities for student success are improved.
3. Create Financial Efficiency, or the extent to which duplicated efforts are reduced and budgets are managed more resourcefully.

The independent variable was time, with two levels—before and after academic realignment. It was measured in two ways, academic year fall semesters and fiscal years. For interdisciplinarity and student services/strategic investments, time was measured using fall 2008 as the before realignment timeframe and fall 2011 as the after realignment timeframe. Additionally, when analyzing the student services/strategic investments

variable, fall 2010 was also assessed as the post-realignment timeframe for this second outcome. For financial efficiency, time was measured using institutional student and workforce records for fall 2008 through fall 2011 and financial data for fiscal year 2007-08 as the before realignment timeframe and fiscal year 2010-11 as the after realignment timeframe. The first dependent variable, interdisciplinarity, was assessed by reviewing records and documents pertaining to newly created interdisciplinary programs offered as a result of the realignment by way of tables of the programs offered before and after the realignment. Additionally, undergraduate student headcount enrollment by major was assessed to compare the impact of the realignment over time. The second dependent variable, student services/strategic investments, was measured using chi-square tests for the proportion of entering freshman students who persisted from the fall semester to the spring semester for academic years 2008-09 and 2011-12 and who persisted from fall 2008 to fall 2009 and fall 2010 to fall 2011 in the school/s that made up the CAS. Additional chi-square tests were conducted to measure persistence in the same way for two other non-health schools at UAB – the School of Business and the School of Engineering. These three schools, the CAS, Business, and Engineering make up the non-health related schools at UAB. The Schools of Business and Engineering were included in the analyses to provide context when measuring change in the CAS. Chi-square tests of proportions measure associations between variables (Hopkins and Glass, 1978). The premise for measuring student persistence was that as student services were changed (i.e., student advising as a service) the proportion of students who persisted may or may not have been impacted. The third dependent variable, financial efficiency, was measured in several ways. This variable was measured by proportions of administrators, faculty, staff,

and students both before and after the realignment. Shown as a decimal fraction, a proportion is the ratio of a number to another number (Hopkins and Glass, 1978). Additional descriptive statistics were used to assess the academic unit's overall actual expenditures data for the timespan covered in the study. Actual expenditures for the other non-health schools and for the total of all schools at UAB were examined to provide context. A comparison of state appropriations during the years of inquiry was also conducted.

IR officers often work with data pertaining to the administrators, faculty, staff, and students. In addition to reviewing the literature, the researcher, an IR officer at the site institution, discussed her study and the institutional research data available with her colleagues when deciding on which variables to analyze. These individuals offered insight as to whether or not these variables best fit the researcher's study, research questions, and the research/assessment needs of the site institution. The variables selected for the study reflect the institution's goals for its academic realignment as articulated by university administrators. At the time of this study, the site institution was like many other universities in the country in that it was facing demands for improvement and achievement while at the same time facing a shrinking budget. In 1998, Johnson, et al. noted that there were "visible signs that competitive forces may soon cause massive structural changes in the higher education industry" (p. xviii). With increasing demands, rising costs, technological changes, a weakened economy, and shrinking budgets universities have been forced to rethink the way they operate and the way they are structured. Similarly as Dickeson (1999) noted in his comments about the fundamental need for reform:

> Academic programs are not only the heart of the collegiate institution (but) they constitute the real drivers of cost to the entire enterprise, academic and non-academic; academic programs have been permitted to grow over time, and in some cases calcify, on the institutional body, without regard for their relative worth; most institutions are unrealistically striving to be all things to all people in their quest for students, reputation, and support rather than focusing their resources on the mission and programs that they can accomplish with distinction; there is growing incongruence between the academic programs offered and the resources required to mount them with quality, and most institutions are thus over programmed for their available resources; traditional approaches like across-the-board cuts (which) tend (to bring) mediocrity for all programs (where) the most likely source for needed resources is reallocation of existing resources—from weakest to strongest programs; reallocation cannot be appropriately accomplished without rigorous, effective, and academically responsible prioritization. (p. 10)

The intended outcomes articulated by the site institution's top level administrators seem to have aligned with the research stated above. Improving interdisciplinary collaboration, enhancing student services/strategic investments, and creating financial efficiencies appeared to correspond with Johnson et al. (1998) and Dickeson's (1999) research. The stated outcomes for the realignment that were provided by the UAB decision-makers revealed that the university administration had prioritization, customer service, reallocation, effectiveness, and fiscal accountability in mind when planning and implementing the academic restructuring.

The first research question, “Did the interdisciplinarity within the CAS increase following the academic realignment?” could potentially have been measured in many ways. The researcher initially considered examining grants and contracts data to understand how faculty members collaborated across disciplines before and after the realignment. However, this assessment did not seem appropriate given that the current study was being conducted only two academic years out from the realignment. Given the time consuming process of finding, planning, writing, and submitting grants, not enough time had passed to really understand if faculty members were collaborating amongst disciplines on grant funded research. Another option to explore this research question was to assess the number of interdisciplinary programs created as a result of the realignment.

The second research question, “Did services for students/strategic investments at the UAB improve within the CAS following the academic realignment?” could have been assessed by examining graduation rates, degrees awarded, changes in advising/number of student advising visits since the realignment, applied/accepted/enrolled admissions statistics, and/or the number of entering freshman students who persisted (were retained) from term to term or year to year. For the purposes of this study, student persistence from fall to spring and fall to fall was assessed with an assumption that a link existed between enhanced services for students/strategic investments and student persistence. The academic realignment at the UAB resulted in a shift of moving all general undergraduate advising to the CAS. The researcher considered this shift a service for students because if students persisted as a result of better advisement/improved services, then the university’s retention and graduation rates would be likely to improve. The

same premise existed for enhanced strategic investments. An example of a strategic investment at the UAB during this time was the implementation of an early alert warning system where faculty could relay warning messages to struggling students early in the semester while there was still time for a student to improve his or her performance. While this system was in place for the entire university, not just in the CAS, it was implemented in hopes of improving retention. This system was particularly relevant for CAS student persistence because most undergraduate students took their core coursework in the College. At the time this study was conducted, persistence and retention figures were important factors in numerous college rankings scales including *U.S. News and World Report's* Best Colleges calculation. Additionally, by improving persistence, the institution would benefit financially in terms of tuition dollars. It is important to note that this variable or the study's other variables could not explicitly be explained by the academic realignment. Universities are complex human organizations. Any number of internal and external factors could affect each variable.

The third research question, "Did financial efficiency for administrators, faculty, staff, and students at the UAB improve within the CAS following the academic realignment?" was measured by analyzing actual expenditures for the College and the numbers of administrators, faculty, staff, and students before and after the realignment. This study included chi-square statistical analyses of the proportion of administrators, faculty, staff, and students to understand changes in workforce and enrollment levels before and after the realignment. Additionally, descriptive statistics were used to assess the academic unit's expenditures to measure for financial efficiencies. State appropriations were also analyzed.

Table 1 below summarizes the research questions, variables, and forms of measurement for the study.

Table 1

Research Questions, Variables, and Measurement Type

Research Question	Reason for Realignment	Specific variable(s)	Form(s) of Measurement
1. Did the interdisciplinarity within the CAS increase following the academic realignment?	Interdisciplinarity	Time (2008/ 2011); Interdisciplinary Programs Offered	Descriptive Assessment (descriptive text, charts, and/or tables to demonstrate the level of interdisciplinarity after the realignment)
2 Did services for students/ strategic investments at the UAB improve within the CAS following the academic realignment?	Services for Students/ Strategic Investments	Time (fall 2008-spring 2009/fall 2011-spring 2012 and fall 2008-fall 2009/fall 2010-fall 2011); Entering Freshman Student Persistence	Chi-square tests (proportion of entering freshman students who persisted in the College of Arts and Sciences before and after the realignment and proportion of entering freshman students in all other non-health schools at UAB before and after the realignment)
3. Did financial efficiency for administrators, faculty, staff, and students at the UAB improve within the CAS following the academic realignment?	Financial Efficiency	Time (fall 2008/fall 2011 and FY 2007-08/FY 2010-11); Proportion of Administrators, Faculty, Staff, and Students; Financial Records/Budgets/ Appropriations	Chi-square tests (proportion of Administrators, Faculty, Staff, and Students in the College of Arts and Sciences); Descriptive Statistics (Expenditures and Appropriations for the College of Arts and Sciences, the other non-health schools, and the totals for all schools)

The study was restricted to archival student, workforce, and financial data collected through the fall semester of 2011. For the purposes of this study, the researcher did not have access to any personally identifiable information found in the existing datasets. No data other than the archival-type data and the information from existing institutional and state documents described in the above sections were collected as a part of this study.

Study Population

In this study, changes were assessed in the areas of interdisciplinary collaboration, student services, and financial efficiency following the academic realignment two years after the creation of the CAS at the UAB. During the time of this study, the UAB served more than 17,000 students and had approximately 326 executive/administrative employees and roughly 2,289 faculty members (Office of Planning and Analysis, 2012). The academic realignment at the research site took effect on January 1, 2010. It consisted of a merger of three schools—the School of Arts and Humanities, the School of Social and Behavioral Sciences, and the School of Natural Sciences and Mathematics—to form one CAS. The School of Education retained its school identity as a distinct unit within the new college (Davis-Hill, 2009). Davis-Hill (2009) documented the UAB's president's comment:

> The institution's president noted "that nineteen of the nation's top twenty-five research universities use the college organization and nomenclature for the assembled disciplines in arts, humanities, and sciences that form the core of a liberal arts education. While many universities have colleges of arts and sciences,

so far as to be determined, the site institution will be the first major research university to integrate a school of education within such a college.

The target population for the study was administrators, faculty, staff, and students within the realigned CAS. No formal sampling procedures were necessary for this study because the data used for analysis were de-identified data from regularly collected archival-type institutional research records and reports collected between the fall term of 2008 and the fall term of 2011. Data was drawn from institutional research and budget records from the Office of Planning and Analysis.

Method of Analysis/Design

The de-identified information provided by the Office of Planning and Analysis was used to answer the research questions. Additionally, existing published institutional and state public higher education documents and resources that contained no personal identifiers were included to corroborate the research for this study. Level of interdisciplinarity was assessed using charts/tables of programs for before and after realignment. Enhanced student services/strategic investments were measured using chi-square tests to understand entering freshman student persistence from semester to semester and from year to year within the realigned academic unit before and after the academic realignment. Financial efficiency was measured by chi-square tests comparing proportions of administrators, faculty, staff, and students within the CAS both before and after the realignment. Additional descriptive statistics were used to assess the academic unit's actual expenditures and the institution's state appropriations. Fink (2006) noted, "Descriptive statistics are the most commonly used analysis methods, and they are the basis for more advanced techniques" (p. 69). Contingent on the dependent variables, the

independent variable (time) was measured using either semester, fall 2008 as the before realignment timeframe and fall 2011 as the after realignment timeframe, or fiscal year 2007-08 as the before realignment timeframe and fiscal year 2010-11 as the after realignment timeframe. No data before the fall term of the 2008 academic year or after the fall term of the 2011 academic year were used for the study. The fiscal years mentioned above correspond to the previously stated timeframe.

Ethical Considerations

There was no potential for harm to the participants, other than that which they would normally have encountered in their daily lives. Data for this study was obtained through archival data that was regularly collected each semester for institutional research purposes at the UAB. For the purposes of this study, all data were de-identified, analyzed, and reported/published in aggregated form only.

Several ethical issues can arise when conducting research. A researcher should assume full responsibility for protecting the confidentiality of participants (Czaja & Blair, 2005). Often, institutions require researchers proposing to conduct a research study to have their study design/protocol reviewed and approved by an institutional review board (Dillman, Smyth, & Christian, 2009). Although this study's research design did not include the collection of data directly from human participants, it did utilize de-identified archival administrative, faculty, staff, and student data. In the study, data from the university's institutional research entity, the Office of Planning and Analysis, were obtained after permission was granted to the researcher by her direct supervisor (the Associate Provost for Planning and Analysis) and after the researcher acquired formal

approval of the processes used for research involving human subjects from the UAB's Institutional Review Board. Furthermore, all data were de-identified by employees within the Office of Planning and Analysis at the UAB prior to the investigator conducting her research. The researcher protected the data by securely storing the datasets on the UAB servers in password protected electronic files/databases on secure-password protected computers. As the Coordinator for Institutional Research in the Office of Planning and Analysis at the UAB, the researcher was familiar with Family Educational Rights and Privacy Act (FERPA) laws. Additionally, the datasets used in this study were information to which the researcher already had access as a part of her job function; although, all identifiers were removed from the records used for the purposes of this study. Special permission was granted by the Associate Provost for Planning and Analysis in order to use these datasets and records in a dissertation study (See Appendix B).

Chapter 4

Results

Introduction

The findings for this study are presented in this chapter. The results are discussed in the order posed for each research question. Archival-type data was analyzed using descriptive statistics, review of existing documents and reports, and inferential statistics to find the results needed to answer the research questions and test the study's hypotheses.

The purpose of the pre-experimental study was to acquire insight on the results of an academic realignment that created a new academic unit, the CAS, at the UAB, a public doctorate-granting research university. The realignment occurred during a time of state and national budget constraints and economic crisis. Changes over time, before and after the realignment, were analyzed. Specifically, changes in interdisciplinarity, student services/strategic investments, and financial efficiencies were studied. These variables were selected because UAB administrators indicated that these three outcomes were the driving goals for realignment. The newly formed academic unit was created in January of 2010 by a merger of three schools—School of Arts and Humanities, School of Natural Science and Mathematics, and the School of Social and Behavioral Sciences. The School of Education was also placed under the new college umbrella, however, it was also considered by the university administration as an autonomous unit.

Characteristics of the Population

The population for this study included administrators, faculty, staff, and students at the UAB. No sampling procedures were necessary for this study because the data for analysis was archived. The data were de-identified and provided by institutional researchers in the Office of Planning and Analysis at the UAB. Table 2 below shows the UAB's total unduplicated student headcount enrollment for both of the years that were examined, 2008 and 2011.

Table 2

UAB Headcount Enrollment – Fall 2008 and Fall 2011

Program Level	Fall 2008	Fall 2011	Change	% Change
Undergraduate	10,369	11,128	759	7.32%
Graduate	4,755	5,402	647	13.61%
D.M.D., M.D., and O.D.	1,025	1,045	20	1.95%
Total	16,149	17,575	1,426	8.83%

Specifically, this study involved the entire student population from the schools that were merged into the CAS in 2008 and the entire student population enrolled in the CAS in 2011. In Tables 3 and 4, the student enrollment for these schools is presented. The institution provides an official headcount enrollment report each fall semester; thus, fall enrollment for 2008 (pre-academic realignment) and 2011 (post-academic realignment) were included. Appendix F, G, H, I , J, and K provide more enrollment

detail for each UAB school and provide demographic information for enrolled students in the school/s merged or created by the realignment.

Table 3

UAB Pre-Academic Realignment Enrollment - Fall 2008

Program Level	School of Arts & Humanities	School of Natural Sciences & Mathematics	School of Social & Behavioral Sciences	School of Education	Total
Undergraduate	1,327	1,509	1,563	782	5,181
Graduate	83	190	220	792	1,285
Total	1,410	1,699	1,783	1,574	6,466

Table 4

UAB Post-Academic Realignment Enrollment – Fall 2011

Program Level	College of Arts & Sciences
Undergraduate	5,564
Graduate	1,380
Total	6,944

In addition to student-related data, information pertaining to UAB's workforce was analyzed. Workforce data captured on October 31st of 2008 and 2011 are shown in

Tables 5 and 6. These data were de-identified and provided by institutional researchers in the Office of Planning and Analysis at the UAB. Presented in Table 5 is workforce data for the entire institutional population including hospital employees. Appendix L provides additional trend data for UAB's workforce in more detail and provides demographic information for employees who work at the university. Workforce data for all four pre-realignment schools were aggregated and were included in Table 6. Additionally, this table includes employment information for the CAS post-realignment.

Table 5

UAB Workforce by Area - Fall 2008 and Fall 2011

Area	Fall 2008	Fall 2011
University	11,564	11,240
Hospital	7,086	7,744
Total	18,650	18,984

Table 6

CAS Workforce by Job Category - Fall 2008 and Fall 2011

Job Category	Fall 2008	Fall 2011
Executive/Administrative	8	6
Faculty	374	352
Professional Nonfaculty	331	414
Secretarial/Clerical	353	337
Technical/Paraprofessional	23	21
Service Maintenance	-	3
Skilled Crafts	1	1
Total	1,090	1,134

Analysis of the Data

Analyses were conducted to understand the impact of the academic realignment that occurred at the UAB and resulted in the creation of the CAS based on goals for the reorganization stated by administrators. Three research questions were formed around the three articulated outcomes and from reasons presented in the literature regarding academic realignments. The first research question asked, "Did the interdisciplinarity within the CAS increase following the academic realignment?"

Results related to Research Question 1. To answer this question the researcher conducted a review of university documents and reports regarding interdisciplinary programs existing in 2008 and new programs that emerged after 2008 until 2011. Specifically, a review of UAB programmatic action items approved by the Alabama Commission on Higher Education during the years of inquiry were assessed as well as data pertaining to UAB's student enrollment for major programs within the school/s involved. The level of interdisciplinarity was assessed using charts/tables pertaining to newly created interdisciplinary programs offered as a result of the realignment.

It is important to note that interdisciplinarity is not by nature limited to one school such as the CAS. Additionally, as a result of the realignment the university shifted its honors college and undergraduate student advising services into the new CAS (Appendix A). The UAB's honors program and other majors had offered interdisciplinary courses for over a decade and continued to do so pre- and post-academic realignment.

Levels of interdisciplinarity were not easily measured at the UAB. Interdisciplinary collaboration is not a required criterion for program offerings, research activities, or university centers. When attempting to analyze interdisciplinary program offerings to answer this research question, it became apparent that, given the limited post-academic realignment timespan, not much change could be determined for this stated outcome. It takes time for programs to be planned, proposed to the proper governing boards, approved, and implemented (Appendix M). Thus, the researcher included some brief excerpts from an index of action items pertaining to new programs and to interdisciplinary programs at the university during the years of inquiry; however, no determination could be made regarding whether there was an increase in the level of

interdisciplinarity within the CAS at the programmatic level following the academic realignment. Table 7 contains a list of the UAB action items pertaining to new or interdisciplinary programs that were discussed at meetings of the Alabama Commission on Higher Education (Office of Planning & Analysis, 2012, *ACHE Index*). Programs that the researcher or other institutional research officers at the UAB knew to be interdisciplinary were highlighted in the table. Other programmatic offerings for fall 2008 through fall 2011 for the schools that were a part of the merger that created the CAS were included in Appendix N and O – Enrollment by Major. Known interdisciplinary programs are also highlighted in Appendices N and O. While it cannot yet be determined whether interdisciplinarity increased with the CAS as a result of the realignment, one concrete indication that interdisciplinarity was a central focus after the academic realignment stemmed from the fall 2011 creation of a position for an Associate Dean for Interdisciplinary and Creative Innovation within the CAS.

Table 7

Programs Emerging as UAB Action Items from Alabama Commission on Higher Education Meetings

	Date	UAB Item
2008	3/28/2008	Approval of Ph.D. in Interdisciplinary Engineering
	3/28/2008	Articulation agreement between M.P.H. and D.V.M. at Auburn University (info item)
	6/27/2008	Joint DNP - UAB, U of AL, U of AL Huntsville (final approval)
	6/27/2008	Merger of Dept. of Critical Care with Dept. of Diagnostic and Therapeutic Science
	9/19/2008	B.S. in Neuroscience approval

	9/19/2008	Approval to amend Post-implementation Condition for UAB/UAH Joint Ph.D. in Civil Engineering
	9/19/2008	UAB/UAH Shared Ph.D. in Computer Engineering - post-implementation conditions met

Table 7 Continued

	9/19/2008	B.A. in African American Studies - post-implementation conditions met
2009	3/13/2009	Track in Biotechnology in MSCLS (Clinical Laboratory Science)
	9/11/2009	Track in Real Estate to BS in Finance
	9/11/2009	Concentration in Computed Tomography to BS in Nuclear Medicine Technology
2010	3/12/2010	College of Arts & Sciences
	6/18/2010	Concentration in Internal Auditing to M.Acc.
	6/18/2010	Concentration in Human Services to BSEd in Health Education
	6/18/2010	Track in Advanced Safety Engineering and management to Master of Engineering
	6/18/2010	Graduate Certificate in Clinical Research Management (Nursing) - Info Item
	9/10/2010	Establishment of a Dual MPA and MS in Criminal Justice - (info item)
2011	6/10/2011	Leonardo Art & Engineering Graduate Certificate
	9/9/2011	Concentration in Biomaterials/Tissue Engineering in BSBME in Biomedical Engineering
	9/9/2011	Concentration in Biomechanics to BSBME in Biomedical Engineering
	9/9/2011	Concentration in Biomaterials to BSMtE in Materials Engineering
	9/9/2011	Concentration in Polymer Matrix Composites in BSMtE in Materials Engineering
	9/9/2011	Concentration in Metallurgy to BSMtE in Materials Engineering
	9/9/2011	Concentration in Sustainable Engineering Design and Construction to BSCE in Civil Engineering
	12/9/2011	Joint Ph.D. in Civil Engineering (UAB and UAH) – post-implementation conditions met (second report)

Results related to Research Question 2. In order to understand more about the second stated outcome for the organizational change that created the CAS (whether or not student services/strategic investments were enhanced post-realignment) student persistence from fall to spring and from fall to fall was examined. Originally, term to term persistence rather than year to year retention was selected as the timeframe for analyses as there were only two years of post-realignment data available at the time of data collection. In order to have a clearer understanding of year to year retention, based on the fall 2008 and fall 2011 premises for this entire study, the post-academic realignment fall 2012 data would needed to have been collected to measure students who persisted from fall 2011 on to the beginning of the next school year, fall 2012. All data for this study were collected prior to fall of 2012. While there may have been other factors besides the academic realignment that affected student persistence such as the depressed economy, persistence was selected as the best assessment metric for the stated goal of enhanced student services/strategic investments in the newly realigned college. The proportion of entering freshman students who persisted term to term post-academic realignment was compared to the proportion who persisted before realignment. Student persistence was selected as the best metric for this variable based on the premise that as student services were changed (i.e., student advising as a service and the acquisition of early warning programs to notify students with low grades in an effort to improve retention as a strategic investment) the proportion of students who persisted may or may not have been impacted.

Based on fall to spring persistence data for both years examined, tables 8, 9, 10, and 11 indicate that the answer is "no" for the second research question, "Did services for students/strategic investments at the UAB improve within the CAS following the academic realignment?" No statistically significant improvements for student services/strategic investments were found when measuring persistence from the fall to spring semesters. Table 8 reflects the persistence of entering freshman in the CAS from fall to spring semesters for academic year 2008-09 and academic year 2011-12. Students reported as entering freshman for the fall started at the UAB either the summer semester or fall semester of each academic year. Chi-square tests for proportions at alpha = .01 were conducted to explore the first hypothesis (H_0), there was no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment. Multiple chi-square tests were conducted; therefore, an alpha of .01 was selected to reduce risks of error. No statistical significance was found for the proportion of entering freshman students who persisted in the CAS from the fall to spring semesters; thus, this finding did not reveal an improvement in student services/strategic investments. The critical chi-square χ^2 (α = .01, df = 1) was 6.63. The observed chi-square value was 2.20 for the CAS student persistence during these years.

Table 8

Chi-Square Analysis - UAB CAS Entering Freshman Persistence Fall to Spring

	Fall 2008 - Spring 2009		Fall 2011 - Spring 2012		Total
	N	(Prop)	N	(Prop)	N
Persisted	511	(.95)	645	(.93)	1,156

Left	25	(.05)	46	(.07)	71
Total	536		691		1,227

Similar results were found when analyzing semester to semester entering freshman persistence for the other non-health related schools at the UAB, the School of Business and the School of Engineering. No statistical significance was found for the proportion of entering freshman students who persisted in the School of Business. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was 2.39. Additionally, no statistical significance was found for the proportion of entering freshman students who persisted for either timeframe in the School of Engineering. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was .60. Caution when making any assumptions about these three non-health schools should be taken. Each school has a distinct mission and these schools are not entirely comparable to the others. Furthermore, in addition to hosting students with declared CAS majors, the CAS is the hub for most students with an undeclared major.

Table 9

Chi-Square Analysis - UAB School of Business Entering Freshman Persistence Fall to Spring

	Fall 2008 - Spring 2009		Fall 2011 - Spring 2012		Total
	N	(Prop)	N	(Prop)	N
Persisted	110	(.96)	123	(.92)	233
Left	4	(.04)	11	(.08)	15
Total	114		134		248

Table 10

Chi-Square Analysis - UAB School of Engineering Entering Freshman Persistence Fall to Spring

	Fall 2008 - Spring 2009		Fall 2011 - Spring 2012		Total
	N	(Prop)	N	(Prop)	N
Persisted	132	(.95)	183	(.93)	315
Left	7	(.05)	14	(.07)	21
Total	139		197		336

Table 11 contains the chi-square results for each school examined. In addition to the CAS, proportions of persistence in the two other non-health related schools at the UAB, the School of Business and School of Engineering, were examined during the same time periods to provide context.

Table 11

Chi-square Results for Entering Freshman Fall to Spring Persistence for CAS, School of Business, and School of Engineering

School	*df*	α	Critical χ_2	Observed χ_2	Result
CAS	1	.01	6.63	2.20	Not Significant
Business	1	.01	6.63	2.39	Not Significant

Engineering	1	.01	6.63	0.60	Not Significant

Second, retention from fall to fall terms was analyzed to provide further understanding about student persistence; although, because of the timeframe of data collection for this study resulting in a lack of persistence data for fall 2011 to fall 2012, the years had to differ from the pre and post-realignment timeframes analyzed for research questions one and three when looking at retention from fall to fall terms. Fall 2012 retention data were not available at the time of data collection for this research. Therefore, persistence measurements for fall 2011 (the standard post-realignment timeframe of analysis throughout this research) to fall 2012 could not be assessed. Instead, for fall to fall pre-academic realignment persistence, comparisons were made between entering freshman students who persisted from fall 2008 to fall 2009; and post-academic realignment comparisons were made measuring persistence from fall 2010 to fall 2011. Fall to fall comparisons are a traditional way to measure student persistence longitudinally at the site institution. The academic realignment occurred during the spring semester of the 2009-2010 academic year. Fall 2010 was the first fall with the new CAS organizational structure. Tables 12, 13, 14, and 15 below further corroborate that the answer was "no" for the second research question, "Did services for students/strategic investments at the UAB improve within the CAS following the academic realignment?" No statistically significant improvement for students/strategic investments was found when measuring persistence from the fall to fall semesters. Table 12 reflects the persistence of entering freshman in the CAS from fall 2008 to fall 2009 and fall 2010 to fall 2011. Chi-square tests for proportions at alpha = .01 were conducted

to further explore the first hypothesis, (H_0) "There was no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment?" Multiple chi-square tests were conducted; therefore, an alpha = .01 was selected to reduce risks of error. No statistical significance was found for the proportion of entering freshman students who persisted in the CAS from fall to fall. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was 2.95.

Table 12

Chi-Square Analysis - UAB CAS Entering Freshman Persistence Fall to Fall

	Fall 2008 - Fall 2009		Fall 2010 – Fall 2011		Total
	N	(Prop)	N	(Prop)	N
Persisted	441	(.82)	565	(.78)	1006
Left	95	(.18)	156	(.22)	251
Total	536		721		1257

Similar results were found when analyzing fall to fall entering freshman persistence for the other non-health related schools at UAB, the School of Business and the School of Engineering. No statistical significance was found for the proportion of entering freshman students who persisted in the School of Business when measured fall to fall. Table 13 shows the proportions of fall to fall persistence used to calculate the chi-square test in the School of Business. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was 0.08. Additionally, no statistical significance

was found for the proportion of entering freshman students who persisted fall to fall in the School of Engineering. Table 14 indicates the proportions for the chi-square tests of persistence from fall to fall for the School of Engineering. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was 1.11.

Table 13

Chi-Square Analysis - UAB School of Business Entering Freshman Persistence Fall to Fall

	Fall 2008 - Fall 2009		Fall 2010 – Fall 2011		Total
	N	(Prop)	N	(Prop)	N
Persisted	93	(.82)	107	(.83)	200
Left	21	(.18)	22	(.17)	43
Total	114		129		243

Table 14

Chi-Square Analysis - UAB School of Engineering Entering Freshman Persistence Fall to Fall

	Fall 2008 - Fall 2009		Fall 2010 – Fall 2011		Total
	N	(Prop)	N	(Prop)	N
Persisted	116	(.83)	133	(.79)	249
Left	23	(.17)	36	(.21)	59
Total	139		169		308

Table 15 contains the fall to fall chi-square results for the same schools as examined in the fall to spring comparisons. The same contextual comparisons from the

fall to spring persistence analyses were made for the fall to fall measurements including the CAS, School of Business, and School of Engineering.

Table 15

Chi-square Results for Entering Freshman Fall to Fall Persistence for CAS, School of Business, and School of Engineering

School	*df*	α	Critical χ_2	Observed χ_2	Result
CAS	1	.01	6.63	2.95	Not Significant
Business	1	.01	6.63	0.08	Not Significant
Engineering	1	.01	6.63	1.11	Not Significant

Results related to Research Question 3. In an attempt to answer the third research question, "Did financial efficiency for administrators, faculty, staff, and students at the UAB improve within the CAS following the academic realignment?", actual expenditures data and the numbers of administrators, faculty, staff, and students from before and after the realignment were collected and analyzed. Statistical analyses for this research question involved finding the proportions of administrators, faculty, staff and students for both 2008 and 2011. Additional descriptive statistics for institutional and college/school level actual expenditures were used to assess financial efficiencies. State appropriations were also analyzed.

Chi-square tests of proportions at alpha = .01 were conducted to test the hypothesis posited for the third research question: *(H_0)* There is no significant improvement in financial efficiency for administrators, faculty, staff, and students within

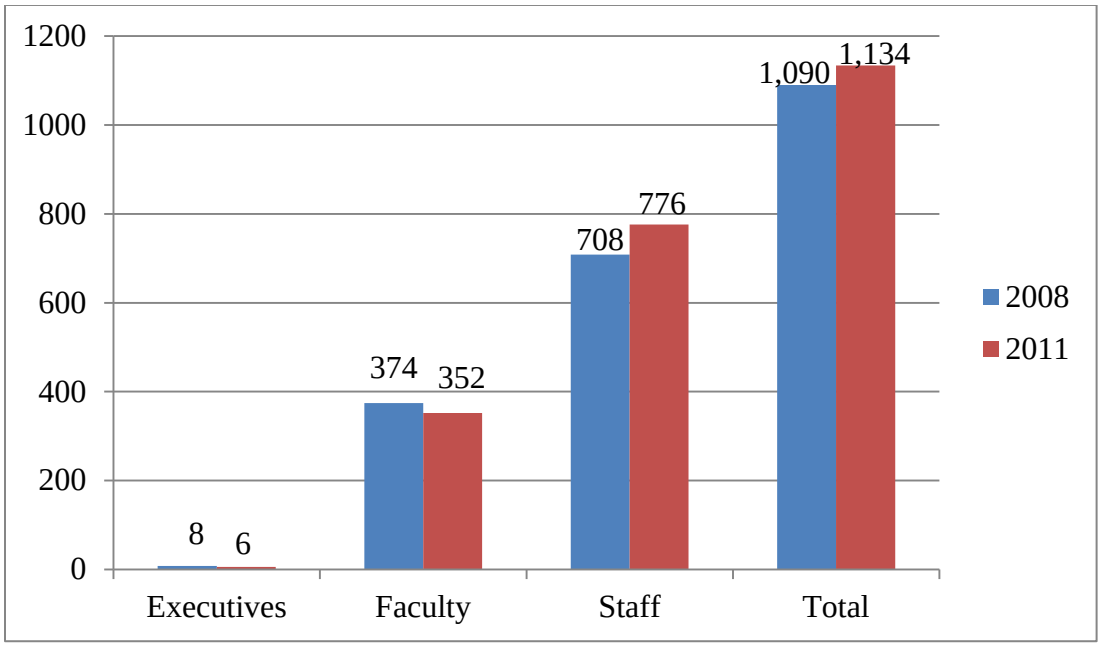
the CAS at the UAB following the academic realignment. First, chi-square tests were conducted to understand if there was a statistical significance between the proportions of workforce totals, full-time, and part-time administrators (called executives in the corresponding tables), faculty, staff, and students using all possible combinations for each time-status category of total, full-time, and part-time. Table 6 included details about each workforce category recognized by the UAB. For clarity, these chi-square tests were conducted using the same labeling for administrators and faculty as the site institution as shown in Table 6; however, the grouping entitled "staff" in Figure 2 and Table 16 included these workforce job categories: professional nonfaculty, secretarial/clerical, technical/paraprofessional, service maintenance, and skilled crafts. Professional nonfaculty consisted of individuals with titles such as Teacher, Graduate Assistant, Program Coordinator, etc. Secretarial/Clerical included workers with titles such as Administrative Associate and Student Assistant. Technical/paraprofessional consisted of employee titles such as Coordinator for Data Collection, Props Master, and Stage Electronics. Service Maintenance was comprised of titles for Receiving and Shipping Clerk and Storeroom Supervisor. Finally, Skilled Crafts included one person in the position of Shop Administrator.

Initial analyses were conducted using all groups; however, due to low staffing levels, administrators were excluded from further chi-square tests. In 2008 the four schools that were eventually merged to create the CAS had a total of eight persons employed full-time in an administrative capacity; whereas, in 2011 the CAS had a total of 6 full-time administrators. No part-time administrators were employed for either year.

Figure 2 below shows a reduction in the number of executives and faculty in the CAS between 2008 and 2011 and an increase in staff.

Figure 2

UAB CAS Personnel Count by Employee Status – 2008 and 2011



Although a reduction was evident for staffing levels at the administrative tier from fall 2008 to fall 2011 (-0.25%) there were not enough administrators within the population to conduct meaningful statistical analyses. Thus, all further chi-square tests were conducted comparing only total numbers of students, faculty, and staff for 2008 and 2011. A decision was made by the researcher to further analyze only the total numbers of faculty and staff in proportion to the total number of students for the purposes of consistency. The faculty and staff counts included all full- and part-time workers in the CAS and the student counts included all students within the CAS at both the

undergraduate and graduate levels. Table 16 shows proportions between CAS faculty, staff, and students for fall 2008 and fall 2011. The chi-square analyses revealed no statistically significant difference at alpha level = .01. An observed chi-square value of 3.23 was found when conducting a chi-square test of proportions for faculty, staff, and students at the UAB with a critical chi-square χ^2 (α = .01, *df* = 2) value of 9.21. Thus, there was no significant difference between the groupings during the years analyzed.

Table 16

Chi-Square Analysis - UAB CAS Students, Faculty, and Staff

	2008	2011	Total
Group	N (Prop)	N (Prop)	N
Students	6,470 (.86)	6,944 (.86)	13,414
Faculty	374 (.05)	352 (.04)	726
Staff	708 (.09)	776 (.10)	1,484
Total	7,552	8,072	15,624

It is important to note, however, that the total number of students enrolled in the schools involved in the realignment increased (7.33%) between fall 2008 and 2011 while the percentage of faculty decreased (-5.88%) and staff increased (9.60%).

The chi-square results provided only part of the picture needed to understand if there were improvements in financial efficiencies. While some changes in student enrollment and workforce levels did occur, an analysis of actual expenditures for UAB

and for the CAS was necessary in order to determine if improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment occurred. The following analyses were conducted to understand what the changing personnel numbers at the three workforce levels of administrative, faculty, and staff meant in terms of salary savings.

Table 17 contains actual expenditures for the CAS. Table 18 contains actual expenditures for the School of Business. The School of Engineering's actual expenditures were included in Table 19. Cost data for the Schools of Business and Engineering were also analyzed to provide context for possible financial efficiencies within the CAS. Table 20 includes total actual expenditures for the UAB. The categories of actual expenditures included in the tables can be defined in the following ways. In addition to consulting with the Financial Analyst within the Office of Planning and Analysis who provided the actual expenditures data, the researcher used the university's Oracle Official Object Code Listings to help define each of these categories (Financial Affairs, 2012). Salaries were defined as wages reported on the IRS W2. Benefits were defined as employee paid expenses for fringe benefits and mandatory taxes, insurances, and other programs. For the purposes of this study Department Expenses were defined as expenses above and beyond salaries and benefits that were deemed necessary by the department for daily operation. Capital Expenses could have included capital construction costs, software, lab equipment, etc. Transfers were defined as funds reserved for transfers out that were within the legal entity of the UAB. Table 21 indicates the funds appropriated to the UAB by the state of Alabama.

Table 17

UAB CAS Actual Expenditures for FY 2007-08 and FY 2010-11

	FY 2007-08	FY 2010-11	Change	% Change
Salaries	$35,624,194	$36,833,938	$1,209,745	3%
Benefits	8,947,298	10,661,403	1,714,105	19%
Dept Expenses	7,089,660	6,553,987	-535,673	-8%
Capital Expenses	185,998	10,545	-175,454	-94%
Transfers	5,271,667	53,521,598	48,249,930	915%
Total	$57,118,817	$107,581,471	$50,462,654	88%

FY 07-08 Salary data as of September 30, 2008
FY 2010-11 Salary data as of September 30, 2011

Between FY 2007-08 (before the academic realignment) and FY 2010-11 (after the academic realignment) there was an increase of 3% in salaries and a 19% increase in benefits with the four pre-academic realignment schools and the merged CAS. Thus, financial efficiencies based on salary and benefits data were not created as a result of the creation of the CAS. There did appear to be a reduction in departmental expenses (-8%) and capital expenses (-94%).

Table 18

UAB School of Business Actual Expenditures for FY 2007-08 and FY 2010-11

Type	FY 2007-08	FY 2010-11	Change	% Change
Salaries	$8,430,084	$8,807,616	$377,532	4%
Benefits	2,234,529	2,764,485	529,956	24%
Dept Expenses	805,930	886,811	80,882	10%
Capital Expenses	0	11,444	11,444	NA
Transfers	485,836	246,233	-239,602	-49%
Total	$11,956,378	$12,716,589	$760,211	6%

FY 07-08 Salary data as of September 30, 2008
FY 2010-11 Salary data as of September 30, 2011

While salaries and benefits did not decrease in the CAS or the School of Business during this time, salaries for the School of Engineering and for the total of all the UAB schools decreased. Based on these contextual comparisons, it was difficult to determine if the realignment created improved efficiencies for administrators, faculty, staff, and students at the UAB. It does not appear that there was a savings in salary and benefits data for the CAS; however, it is apparent that there was an effort to increase the numbers of staff while decreasing the number of faculty and administrators.

Table 19

UAB School of Engineering Actual Expenditures for FY 2007-08 and FY 2010-11

Type	FY 2007-08	FY 2010-11	Change	% Change
Salaries	$6,814,604	$6,066,359	-$748,245	-11%
Benefits	1,813,252	1,890,688	77,436	4%
Dept Expenses	1,585,326	1,177,676	-407,650	-26%
Capital Expenses	12,479	15,399	2,920	23%
Transfers	387,350	459,725	72,375	19%
Total	$10,613,012	$9,609,846	-$1,003,165	-9%

FY 07-08 Salary data as of September 30, 2008
FY 2010-11 Salary data as of September 30, 2011

Table 20

Total UAB School Actual Expenditures for FY 2007-08 and FY 2010-11

Type	FY 2007-08	FY 2010-11	Change	% Change
Salaries	$164,899,214	$160,791,389	-$4,107,824	-2%
Benefits	43,280,131	49,269,404	5,989,273	14%
Dept Expenses	69,035,889	72,163,851	3,127,962	5%
Capital Expenses	5,596,705	3,198,786	-2,397,919	-43%
Transfers	81,418,288	107,855,457	26,437,169	32%
Total	$364,230,227	$393,278,888	$29,048,660	8%

FY 07-08 Salary data as of September 30, 2008
FY 2010-11 Salary data as of September 30, 2011
Includes Graduate School, libraries, and all academic schools

The chi-square tests of proportions of administrators, faculty, staff, and students revealed the hypothesis for the study's third research question should be retained. There was no significant improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment because the salary and benefits actual expenditures for these years did not reveal any cost savings. Savings did emerge for non-personnel related expenditures. As indicated in Table 21, perhaps these reductions in expenses were a result of the reduced and prorated state appropriation operations and maintenance amounts awarded to the UAB during these years (-29.5%). The stated outcome for financial efficiencies originated during very difficult budgetary years for the university (House Bill 213, 2007; House Bill 274, 2010.

Table 21

UAB State Appropriations for FY 2007-08 and FY 2010-11

Ares of Funding	2007-08 State Appropriation	2010-11 Budgeted Appropriation (Original Appropriation Prorated 3%)	Change	% Change
O&M w/ earmarks	$ 349,829,308	$ 246,578,145	$ (103,251,163)	-29.5%
Mental Health	4,132,177	3,406,977	(725,200)	-17.6%
Cancer Center	-	4,052,527	4,052,527	NA
Total UAB:	$353,961,485	$ 254,037,649	$ (99,923,836)	-28.2%

Summary

In summary, the main purposes of analyzing information pertaining to the three stated outcomes for the academic realignment, increased interdisciplinarity, enhanced student services/strategic investments, and financial efficiencies, was to measure some of the changes that occurred before and after the realignment to understand if the goals for the realignment were achieved or were progressing towards achievement. The research questions and hypotheses served as guides for determining the appropriate method/s for analysis. Not enough time had passed to understand fully if there was an increase in interdisicplinarity within the CAS. Additionally, no statistically significant results were identified for either of the other two stated outcomes of the academic realignment, enhanced student services/strategic investments or financial efficiencies for administrators, faculty, staff, and students.

Chapter 5

Discussion

Introduction

This chapter addresses the findings for each research question and hypothesis in order. The research questions were derived from literature on academic realignments and from the stated outcomes for the academic realignment expressed by administrators at the site institution. The metrics and results for each research question were summarized and were related to or evaluated against literature on this topic. The chapter discusses the findings and implications of the research for the field of higher education administration. In addition, recommendations for future research are discussed.

Study Overview

The purpose of the study was to gain an understanding of the results of the realignment of an academic unit at the UAB during a period of economic hardship by examining changes over time that follow the realignment and can be tied to the stated purposes of the realignment. The UAB is a public doctorate-granting university with very high research activity in the southeastern United States of America. Administrators at the site institution noted three main justifications for realignment: to improve interdisciplinarity, enhance student services/strategic investments, and create financial efficiencies. The newly formed academic unit (the College of Arts and Sciences or CAS) was created in January of 2010 by a merger of three schools—School of Arts and Humanities, School of Natural Science and Mathematics, and the School of Social and

Behavioral Sciences. The School of Education was also placed under the new college umbrella, but it was considered by the university administration as an autonomous unit (Appendix A).

Research Questions

To better understand the impact of an academic realignment, on the College of Arts and Sciences at UAB, which occurred during times of financial constraint, the following questions were posed:

1. Did the interdisciplinarity within the CAS increase following the academic realignment?
2. Did services for students/strategic investments at the UAB improve within the CAS following the academic realignment?
3. Did financial efficiency for administrators, faculty, staff, and students at the UAB improve within the CAS following the academic realignment?

Hypotheses

The following null hypotheses were formed. It is important to note that no null hypothesis was formed for the first stated cause of the realignment (to increase interdisciplinarity) because this variable was not assessed through inferential statistics. Instead, descriptive statistics were used to relate the impact of academic realignment on the level of interdisciplinarity within the realigned academic unit.

1. There is no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment. (H_0)
2. There is no significant improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment. (H_0)

Summary of Findings

Findings related to Research Question 1. Research Question 1, "Did the interdisciplinarity within the CAS increase following the academic realignment?" was addressed by examining university documents and reports regarding interdisciplinary programs present in 2008 or programs that were implemented after 2008 through 2011. Interdisciplinarity was defined as the extent to which individuals from different disciplines/programs/departments scholastically collaborate and the extent to which multi-disciplinary instructional opportunities for undergraduate students are heightened. For this study, interdisciplinarity was operationally defined as interdisciplinary programs, course offerings, and interdisciplinary majors. To gain information on interdisciplinarity, programmatic action items decided on by the Alabama Commission on Higher Education were analyzed for these years, 2008-2011. Additionally, the UAB's enrollments by major for the appropriate school/s were analyzed.

The researcher concluded the following, based on these analyses. Identifying the level of interdisciplinarity within an academic unit such as the CAS was murky. There are many types of interdisciplinary collaborations (i.e., classroom curriculum, research,

publications, grant writing, and programmatic/degree offerings). Each type of collaboration might use a different definition for interdisciplinarity. Furthermore, interdisciplinarity was not a required component in any of these areas before or after the realignment. Gathering data to measure interdisciplinarity at the time surrounding the academic realignment was a challenge. Many of these types of collaboration involve great amounts of time to implement or to bring to fruition. In the case of examining programmatic offerings, large amounts of time are required to see a proposed program become approved and realized. Program proposals at the site institution are reviewed by the Dean of the school seeking the new program, the faculty, the President, the Board of Trustees, the University of Alabama System's Chancellor, the Alabama Commission on Higher Education, etc. (Appendix M). Some of these groups hold meetings only a few times a year. Often program planning begins well before the proposal is submitted through these formal channels. Planning for new programs and program approval are lengthy processes. Therefore, it was a challenge to determine if interdisciplinary programs approved during this timeframe were really caused by the academic realignment. When attempting to analyze interdisciplinary program offerings to answer this research question, it became apparent that, given the limited post-academic realignment timespan of two years, not much change could be determined for this stated outcome. It was concluded that no determination could be made regarding whether there was an increase in the level of interdisciplinarity within the CAS at the programmatic level following the academic realignment. While it cannot yet be determined whether interdisciplinarity increased with the CAS as a result of the realignment, one concrete indication that interdisciplinarity was a central focus after the academic realignment

stemmed from the fall 2011 creation of a position for an Associate Dean for Interdisciplinary and Creative Innovation within the CAS. More time was needed to assess whether the interdisciplinarity within the CAS increased following the academic realignment.

Findings related to Research Question 2. The second research question, "Did services for students/strategic investments at UAB improve within the CAS following the academic realignment?" was analyzed by measuring proportions of student persistence before and after the academic realignment by way of chi-square tests. Enhancing student services and improving strategic investments was defined as the extent to which resources and amenities for student success were improved (e.g., student advising). The following hypothesis was posed for this research question: (H_0) There is no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment. Student persistence was selected as the best metric for this variable based on the premise that as student services were changed (i.e., student advising as a service and the acquisition of early warning programs to notify students with low grades in an effort to improve retention as a strategic investment) the proportion of students who persisted may or may not have been impacted. Although there may have been other factors besides the academic realignment that affected student persistence such as the depressed economy, persistence was selected as the best assessment metric for the stated goal of enhanced student services/strategic investments in the newly realigned college.

The analyses for this research question revealed that the answer is "no" for the question: "Did services for students/strategic investments at the UAB improve within the CAS following the academic realignment?" No statistically significant improvement for students/strategic investments was found when measuring persistence from the fall to spring semesters for the CAS χ^2 (α = .01, *df* = 1) = 6.63. The observed chi-square value was ρ = 2.20. Similarly, no significance was found in the proportions of fall to spring persistence for the other non-health schools included in the analysis for contextual purposes: School of Business χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was ρ = 2.39 and School of Engineering χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was ρ = .60). Likewise, there was no significant difference for these schools when measuring persistence from fall to fall. The CAS chi-square test for fall to fall persistence revealed an observed chi-square value of ρ = 2.95. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. Additionally, no statistical significance was found for the proportion of entering freshman students who persisted in the School of Business when measured fall to fall. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63. The observed chi-square value was ρ = 0.08. The chi-square test for the School of Engineering had an observed chi-square value of ρ = 1.11. The critical chi-square χ^2 (α = .01, *df* = 1) was 6.63.

Although no statistically significant results were found in the proportions for these schools levels of persistence for these periods, fall to spring and fall to fall, the results suggested that student persistence was better from fall to spring than from fall to fall. Proportions of CAS persistence decreased from .95 to .93 when measured fall to spring for fall 2008-spring 2009 to fall 2011-spring 2012. When analyzed using fall-to-

fall persistence, the CAS had lower proportions ranging from .82 from fall 2008-fall 2009 to .78 from fall 2010-fall 2011. The reduction in persistence from either time period cannot be explicitly tied to the academic realignment that created the CAS. However, for the purposes of this research, one can conclude that student services/strategic investments, at the times of measurement, had not improved entering freshman persistence. This study had a short timeframe for data collection post-academic realignment. Perhaps, over time, student persistence will improve as a result of the academic realignment as well as from other internal and external factors. Based on the analysis and findings for this study, the null hypothesis, "There is no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment" was retained. There was no statistically significant difference in proportions of persistence before and after the realignment, when improved persistence was viewed as a result tied to improved services for students by way of enhanced strategic investments.

Findings related to Research Question 3. Research Question 3, "Did financial efficiency for administrators, faculty, staff, and students at the UAB improve within the CAS following the academic realignment?" was addressed by analyzing actual expenditures data, appropriations, and the numbers of administrators, faculty, staff, and students before and after the realignment. Proportions of administrators, faculty, staff and students for both 2008 and 2011 were calculated to statistically measure changes over time for these groups using chi-square tests. The chi-square tests were used to test the following null hypothesis: "(H_0) There is no significant improvement in financial

efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment." Administrators (executives) were eventually excluded from statistical testing because there were only eight administrators in fall 2008 and six administrators in fall 2011, not enough to conduct meaningful statistical analyses.

The chi-square test of proportions between CAS faculty, staff, and students for fall 2008 and fall 2011 did not reveal any statistically significant difference at alpha level = .01. An observed chi-square value of $\rho = 3.23$ was found when conducting a chi-square test of proportions for faculty, staff, and students at the UAB with a critical chi-square $\chi^2 (\alpha = .01, df = 2)$ value of 9.21. Thus, there was no significant difference between the groupings during the years analyzed. The analysis did reveal an increase in students during these years and indicated a reduction in faculty during the same time periods. Staffing levels were increased during this period. It was speculated that perhaps this greater student enrollment and smaller faculty workforce was an effort towards efficiency.

The chi-square test conducted for the proportions of individuals including both students and faculty and staff only provided a portion of the information needed to understand if there were improvements in financial efficiencies. Although some changes in student enrollment and workforce levels did occur, an analysis of expenditures for the UAB and for the CAS was necessary in order to determine if improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment occurred. Analyses were conducted to understand what the changing personnel numbers at the three workforce levels (administrative, faculty, and staff) translated to in terms of salary savings. Costs data for the Schools of

Business and Engineering were also analyzed to provide context for possible financial efficiencies within the CAS.

Between FY 2007-08 (before the academic realignment) and FY 2010-11 (after the academic realignment) there was an increase of 3% in salaries and a 19% increase in benefits with the four pre-academic realignment schools and the merged CAS. Thus, financial efficiencies based on salary and benefits data were not created as a result of the creation of the CAS. There did appear to be a reduction in departmental expenses (-8%) and capital expenses (-94%). The hypothesis for the study's third research question was retained. There was (no) significant improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment because the salary and benefits actual expenditures for these years did not reveal any cost savings.

Savings did emerge for non-personnel related expenditures. These reductions in expenses were a result of the reduced and prorated state appropriation operations and maintenance amounts awarded to the UAB during these years (-29.5%). The stated outcome for financial efficiencies originated during very difficult budgetary years for the university (House Bill 213, 2007; House Bill 274, 2010).

While salaries and benefits did not decrease in the CAS or the School of Business during this time, salaries for the School of Engineering and for the total of all of the UAB schools did decrease. Based on these contextual comparisons, it was difficult to determine if the realignment created efficiencies for administrators, faculty, staff, and students at the UAB. It does not appear that there was a savings in salary and benefits data for the CAS; however, it is apparent that there was an effort to increase the numbers

of students and staff while decreasing the number of faculty and administrators. The researcher found that the null hypothesis for this research question: (H_0) There is no significant improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment, was retained. There was no significant improvement in financial efficiency for these groups.

Discussion

This study was conducted to reduce a gap in the body of knowledge regarding university academic realignments. Few studies were identified that measured the impact of change caused by the realignment of an academic unit at universities by way of institutional outcomes. Additionally, there are few precedents for university administrators to follow in leading organizations during situations such as the current economic downturn. Little research has been conducted on the effectiveness of steps that universities are taking, such as academic realignment, to weather financial crises. This study was needed because, without evidenced-based methods of inquiry and self-assessment, institutional leaders and stakeholders may find it difficult to track the progress of realignments, refine implementations, and evaluate successes. Additionally, this study was needed locally at the site institution in order to give an initial picture of the results of the academic realignment that formed the CAS even though no plans were shared for evaluation prior to the implementation of the organizational change.

The overarching topics or variables analyzed in this study stemmed from themes found in higher education literature and from the stated outcomes for the realignment articulated by the UAB's administrators. In their discussion regarding the value attached

to specific outcomes, Lawrence and Service (1977) noted that outcomes by contrast to cost measurement techniques require, “a determination of what constitutes goodness and must be explicitly established through some priority-setting exercise” (p. 45). While some determination was made by the UAB administrators regarding the outcomes for the academic realignment, a plan for assessing whether the goals or outcomes were met post-realignment was not discussed publicly. In lieu of a known priority-setting exercise where assessment measurements were discussed, the researcher had to apply commonsense assessment measures to gather data on the stated outcomes for interdisciplinarity, enhanced student services/strategic investments, and financial efficiencies.

As indicated in the theoretical framework for this study, one could determine, using Kingdon’s (2003) shifting streams theory, a model of “identifiable forces that drive agenda setting,” that the problem stream for the UAB was a reduced budget, the need to improve student services through strategic investments, and the need to improve curricula and research through interdisciplinary collaboration (p. vii). These areas were identified as problems based on the needs to improve efficiency, retain students, and improve interdisciplinary research and course offerings, all of which could be tied back to institutional funding. The institution’s President and Provost articulated outcomes of the realignment that provided the basis needed for the researcher to determine these variables as components of the problem stream. Kingdon’s theory offered a model for how issues find their way on an organization’s agenda at a particular time. Kingdon (2003) theorized that three types of processes—problems, policies, and politics—influence agendas, each of which—“can serve as an impetus or as a constraint” (p. 18). The

theory suggests that the three streams flow through the organization and the that most significant policy changes emerge from the joining of the three streams, creating a policy window. When a policy window is open, the opportunity is presented for implementing a change. As Galligan and Burgess (2005) noted, "When a problem is identified and the political environment is favorable, it is vital that the policy stream produce viable alternatives" (p. 3). A policy window was opened at the UAB during this time (2009 and 2010) by synergies created from the problems stream (variables/stated outcomes of realignment used in this study), policy stream (idea for the realignment), and political stream (downsizing number of administrators and faculty and amassing greater political power for the merged college through realignment).

The first research question was centered on interdisciplinary collaboration. Interdisciplinarity appeared to have been a topic of great discussion at the time of this research study. Perhaps this was due to the national economic crisis which was impacting all American colleges and universities. Budgets and endowments were shrinking during this time. Capaldi (2009) suggested that times of reduced resources often create the need for changes to academic organizations, and often these changes result in broader, more individualistic, and more interdisciplinary colleges and universities. The UAB was not experiencing the desire for increased interdisciplinarity from its leadership for the first time. In fact, the UAB's past leaders used strategic planning, interdisciplinary collaboration, and reorganizations to shape and reshape the institution as it developed from its founding in 1969 (Fisher et al, 1995). This pattern of change and collaboration is important for the UAB's continued success because

universities that remain single-discipline focused will have difficulty overcoming today's challenges (McArthur & Sachs, 2009).

Dickeson (1999) noted that academic programs are not only the heart of the collegiate institution (but) they constitute the real drivers of cost to the entire enterprise. Perhaps this is why the UAB administrators chose to emphasize interdisciplinarity as a focus of academic realignment. However, no determination could be made for the first research question, "Did the interdisciplinarity within the CAS increase following the academic realignment?" Perhaps with more time post-academic realignment changes in this area will become apparent, as there is now an administrative position for the Associate Dean for Interdisciplinary and Creative Innovation within the new CAS. Additionally, administrative changes at the institution may impact the continued emphasis on interdisciplinary collaboration. If the administration's focus changes because of top-level leadership attrition, increased interdisciplinarity and the other stated goals may no longer be intended priorities.

The second research question revolved around student services and strategic investments. In addition to this outcome having been articulated by the UAB administrators, student services and strategic investments were analyzed because these concepts were recurring themes when reviewing the literature on academic realignments. One way to improve efficiency and enhance the student experience was for colleges and universities to spend money up front (invest) by way of improving student services that would help students persist and achieve academically (Thelin, 2004). This effort, the researcher speculated, was to seek practical results. If more students were retained, more tuition and fees would be collected. External pressures and a weakened economy have

caused colleges and universities to reorganize their business plans to continue and/or improve their revenue streams (Moody's 2010, as cited by Mayer, 2011). Examples of this kind of investment put into practice were found when reading about realignments at other institutions—notably at ASU.

Capaldi (2009) noted that ASU underwent an academic reorganization of its programs in an effort to reduce duplicate course offerings, increase interdisciplinary collaboration, create financial efficiencies, and improve advising services to students. ASU also changed its undergraduate advising practices as a part of its reorganization in an effort to improve student satisfaction and improve retention and graduation rates. Similarly, improved student advising was a result of a change at Wagner College. Better student advising and services were desired outcomes of change at this institution in an effort to improve student retention (Guarasci & Leiberman, 2009).

Retention, or as in the terminology for this study, persistence, was selected as the appropriate measure for the realignment outcome of enhanced student services and strategic investments. The premise that enhanced student services would help retention was based on literature surrounding this topic. No statistically significant findings were revealed during the analysis for this research question. Based on the analysis and findings for this study, the null hypothesis: "There is no significant improvement in services for students/enhanced strategic investments within the CAS at the UAB following the academic realignment" was retained. The chi-square tests for the proportions of entering freshman students who persisted before and after the realignment, measured both fall to spring and fall to fall, did not reveal any statistically significant findings, although the proportions themselves revealed a slight decrease in the number of

students who persisted (fall 2008 to spring 2009 and fall 2011 to spring 2012 (-.02); and fall semesters 2008-2009 and fall semesters 2010-2011 (-.04).) This slight decrease and the lack of statistically significant findings could be attributed to the short period of time between the implementation of the academic realignment and the data collection. Additionally, other factors such as tuition costs rising while the American national economic recession was happening could have had an impact on gains being made in this area. Furthermore, another possible reason for the decrease in student persistence was that the realignment was not beneficial to students or that the CAS employees did not buy-in to the academic realignment and therefore did not diligently attempt to implement the new concepts surrounding this stated outcome.

The third research question was derived from the stated outcome mentioned by the UAB administrators for the creation of financial efficiencies and by the recurring theme revealed in the literature of restructurings tied to cost savings. During difficult economic times institutions of higher education, particularly public institutions, often seek ways to save on costs. Peterson (1998) stated, “The institutional challenge of the redefined postsecondary industry and less supportive environment was to enhance the need for institutional efficiency and to stress a greater market orientation in seeking student enrollments and other resources” (p. 7). One way for colleges and universities to create efficiencies and generate new revenue is to become more business-minded. “Many colleges and universities are increasing their efforts to operate their institutions in a more businesslike manner, with greater efficiency, effectiveness, and financial stability” (Mayer, 2011, p. 4).

Tabulawa (2007) noted that "far from being a benign exercise, restructuring was a micro-technology of power redistribution coated with the sugary language of cost-saving, streamlining, efficiency, and effectiveness" (p. 478). An example of a realignment being implemented with the intention to create efficiencies can be found at Wentworth Institute of Technology. The reasons provided for the reorganization at Wentworth were "to address the need to provide multi-disciplinary, project-based curricula…bring a level of balance and equity to the size of the administration of each new college...and operate with greater efficiency" (Wentworth, 2010, para. 2-3).

In an effort to understand if financial efficiency improved for administrators, faculty, staff, and students within the CAS after the realignment, workforce and enrollment numbers, actual expenditures, and state appropriations were examined. Lawrence and Service (1977) noted that, many if not most management practices stem from analyses of costs and outcomes. The authors noted that an organization's costs and resources are often measured by budget allocations, appropriations, expenses, and budgets. The null hypothesis, "(H_0) There is no significant improvement in financial efficiency for administrators, faculty, staff, and students within the CAS at the UAB following the academic realignment" was retained. Based on the contextual comparisons made between UAB's CAS, the School of Business, and the School of Engineering, it was difficult to determine if the realignment created efficiencies for administrators, faculty, staff, and students at the UAB. There was no evidence of savings in salary and benefits data for the CAS; however, it was apparent that there was an effort to increase the numbers of students and staff while decreasing the number of faculty and administrators. The researcher speculated that an attempt towards creating efficiencies

was made because: (a) the timing was right for implementing reorganization on a large scale by way of the opening of what Kingdon (2003) referred to as policy window; (b) the state appropriations and funding awarded to the university by the federal government were being reduced causing the institution's budget to shrink; and (c) the need to educate the growing number of enrolled students, while at the same time, reducing the number of faculty and administrators.

In summary, the researcher sought to assess the intended outcomes of an academic realignment at the UAB, in comparison with the stated goals of the realignment, as articulated by university administrators. It appears that there was no change in interdisciplinarity, no change in student persistence as a result of enhanced student services/strategic investments, and no improved financial efficiency.

Limitations

Overall, while the variables and forms of measurement for this study were derived from both the institutional outcomes and the literature, no significant results were found. The study was conducted only two academic years out from the implementation of the realignment that formed the CAS. More time is needed to understand the impact of this change for the outcomes that were analyzed.

There are several additional limitations.

1. The first limitation was the study's method of analysis. Although quantitative research is useful, its use in this study would not comprehensively answer all facets regarding the impact of realignment.

2. Multiple internal and external factors aside from the realignment could have impacted the variables for this study. For example, an internal factor such as higher tuition rates would not be a result of the realignment, yet could still potentially affect the data.
3. The academic realignment at the UAB that sparked the creation of the CAS occurred only a few academic years before this study was conducted. More time was needed to fully deduce the full impact of the realignment.
4. The results of the research were not fully generalizable to other institutions of different types and in different regions because the study was conducted at one public doctoral-granting research-intensive institution in the southeastern United States. The data collected came from internal databases and reports from a variety of sources that are housed at the UAB in the Office of Planning and Analysis and maintained by IR officers.
5. In addition to the limitation of time in this study, one key drawback when conducting analyses was trying to quantitatively measure outcomes of the realignment after the change had occurred.

Implications

This study has implications for individuals at all levels of the university structure from students to administrators and all staffing levels in between. However, it most particularly relates to the issues and work associated with being a university administrator. Making difficult choices is a part of the job description for these

individuals. Leading a university through times of prosperity and times of crisis is inevitable. This study provided an example of what kind of change was taking place at a research intensive university during a time of financial constraint. It demonstrated the need for a plan to assess outcomes at the onset of any organizational change. The findings, or lack thereof, suggested that leaders need to understand realistic timeframes in which they can expect to see significant changes based on their decisions to implement and execute realignments.

The researcher's findings and the literature review demonstrated the need to plan for change in higher education and the need to openly communicate change efforts with the individuals affected, especially during times of reduced budgets (Welsh et al., 2006). There should always be a stated plan for when and how to effectively implement a change effort and a timeline and methodology for evaluating the successes or failures of a change. "Staff members serve on the college's front lines. In lean years as well as plentiful, they can facilitate or obstruct any attempts at institutional improvement. Engaging the staff in transformational efforts is a critical element in sustaining momentum" (Guarasci & Lieberman, 2009, p. 28). As Leslie and Fretwell (1996) explained, continued and successful transformation requires individuals to join forces to make difficult decisions in an intelligent manner. One way for leaders to establish trust and buy-in is to participate in strategic planning efforts themselves while also encouraging others to participate. This establishment of trust will help to empower subordinates. Tull (2007) noted, "Research indicates that some broad goals that successful leaders need to acquire are competing for students, empowering others to

make decisions, assessing the work of educators, providing professional development, and most importantly becoming proficient at strategic planning" (p. 13).

Strategic planning and acquiring methods to evaluate changes are ways to build trust with stakeholders and others impacted by change, in addition to serving as components of a roadmap for where the institution is and the direction it hopes to take in the future. As Bull (2002) noted, "the word 'change' evokes emotional responses in the workplace (p. 11). Including those affected by change in the planning process and maintaining clear lines of communication with these individuals can help to reduce this level of anxiety. Bull indicated, "Employees have nothing to aim for when they are asked to make changes but they do not know why, or what is expected of them, or how it will benefit them as an individual" (p. 11). Thus, it is imperative that university administrators understand the nature of change within the organization and how it might impact the individuals involved. These leaders should maintain dialogue about change with constituents and plan strategically, using goals and intended outcomes, and preemptively incorporate ways to evaluate changes such as an academic realignment. In their discussion on how to attain what they called "enlightened change," Leslie and Fretwell (1996) suggested to "generate good information, share it widely, and cooperate responsibly in framing new directions" (p. 25).

Additionally this study has implications for institutional researchers and institutional research offices at colleges and universities. This study revealed that including an IR or assessment office at the initial planning phases of the realignment and throughout its implementation was necessary. One role of institutional research offices is to support university administrators in their efforts to make decisions based on

institutional data. IR staff are skilled in planning and implementing projects with measurable outcomes. In addition to the limitation of time in this study, one key limitation was trying to quantitatively measure outcomes after the implementation of the change. The use of archived data, documents, and reports had to be the source of data for this study. If the university administrators had included the IR office on the front end of the realignment process, data could have been collected before, during, and after the realignment in ways that were more appropriate, concise, and telling.

A final implication became evident after the data for this study was analyzed. Even at the conclusion of this study, it is still not clear whether academic realignments achieve the stated goals or desired results of institutional decision-makers. Care should be taken by university administrators when choosing this type of action, as it is not yet supported in research as a proven method of improving interdisciplinarity, enhancing student services/strategic investments, or creating cost efficiencies.

Recommendations for Future Study

Seven recommendations can be made for further investigation:

1. A longitudinal study continuing the collection of the types of data used in this study is needed. A longitudinal study would provide the impact of change to be assessed at multiple post-academic realignment intervals for the CAS at the UAB
2. Once enough time has passed to effectively examine interdisciplinary collaboration in other ways, further studies should be conducted to measure whether there were increases in interdisciplinarity in the CAS after the realignment. Some other ways to analyze changes in interdisciplinary

collaboration include examining grants and contracts, publications across disciplines, and communications between faculty members across disciplines.

3. Qualitative studies are needed to understand the impact of change on humans within the organization before, during, and after an academic realignment. As Lawrence and Service (1977) noted "quantitative information (in higher education) cannot and should not replace any of these other sources or types of information—experience, intuition, judgment, and plain old gut-level feeling" (p. 69). A qualitative study would reveal findings for the three measured outcomes in ways that could not be assessed quantitatively.
4. The administration of a survey to faculty members measuring their perceptions of interdisciplinary collaboration, student services, and financial efficiencies would be helpful in understanding more about academic realignments in higher education.
5. A study on organizational climate and culture during times of change would bring added knowledge towards understanding change more holistically.
6. A comparison study measuring changes at one institution compared to changes at other institutions might be helpful in understanding trends in restructuring, particularly during times of economic crisis.
7. A study examining the different definitions of interdisciplinary collaboration would be helpful to administrators and institutional researchers when they are articulating or measuring an institution's vision or goal for increased interdisciplinarity.

Summary

In summary, this study examined a change phenomenon at a doctorate-granting research university in the southeastern United States that responded to the economic crisis by realigning four academic schools into one large college. Scholarly inquiry was needed to understand the impact of this realignment based on stated outcomes for the restructuring. The main purposes of analyzing information pertaining to the three stated outcomes for the academic realignment (increased interdisciplinarity, enhanced student services/strategic investments, and financial efficiencies) was to measure some of the changes that occurred before and after the realignment to understand if the goals for the realignment were achieved or were progressing towards achievement. The research questions and hypotheses, derived from the literature and the stated outcomes of the realignment, served as guides for determining the appropriate method/s for analysis. Not enough time had passed to understand fully if there was an increased level of interdisicplinarity within the CAS. Additionally, no statistically significant results were identified for either of the other two stated outcomes of the academic realignment, enhanced student services/strategic investments or financial efficiencies for administrators, faculty, staff, and students.

When enough time has passed, further research is needed to determine if the academic realignment had an impact on the three outcomes. Eckel and Kezar (2011) noted that structural evidence of transformation consists of the following: a new curriculum, enhanced student outcomes, administrative policies and budgets that are more responsive to constituents' needs, a climate that generates entrepreneurial initiative and decision-making that fosters creativity and efficiency. This study offers academic

leaders insight into the importance of giving thought to these areas at the beginning of the realignment planning process as well as the need to incorporate assessment measurements into the plan in order to understand if goals were met for outcomes. Additionally, this study provided a framework for understanding the impact of change on a new academic unit at a research university. Understanding outcomes is important as they provide insight on advances and losses. Leslie and Fretwell (1996) noted that outcomes "focus scarce resources on what makes for a high-quality undergraduate experience—not just on how to put more resources into undergraduate education" (p. 270).

Researcher's Note

It is important to note that since this study concluded, a decision to remove the School of Education from the CAS was made by the UAB administrators. As of the fall semester of the 2012-2013 academic year, the School of Education and the CAS were reported separately in all areas. This change will present a challenge when conducting longitudinal research to investigate the change within this new academic unit based on the stated outcomes for the realignment.

Additionally, during this study one key leader in the implementation of the realignment, the institution's Provost, left the UAB to become the President at the University of Kentucky. Shortly after data were collected for this study, the UAB's President, another important figure in the realization of the academic realignment, left the institution. Just over two years since the merged schools created the CAS, the new College has had three different deans: an interim dean when the CAS was first created, an individual who was hired to lead the entire CAS, and an interim dean once again.

Furthermore, the University of Alabama System, of which the UAB is a member, acquired a new Chancellor. Change on four of the top levels of the institution's administration occurred: the Chancellor, the President, the Provost, and the CAS Dean. As attrition occurs among university leaders, certain agenda items, goals, and outcomes may change. It is inevitable that administrators will have to lead universities in both times of prosperity and crisis. This study helped to provide an example of what kinds of change were taking place at a research intensive university during a time of financial constraint, and its researcher investigated the impact of the change. As indicated by the multiple transitions in leadership in just a few short years, change at colleges and universities is unavoidable. The researcher's findings will prove helpful to institutional administrators planning or undergoing many types of organizational change.

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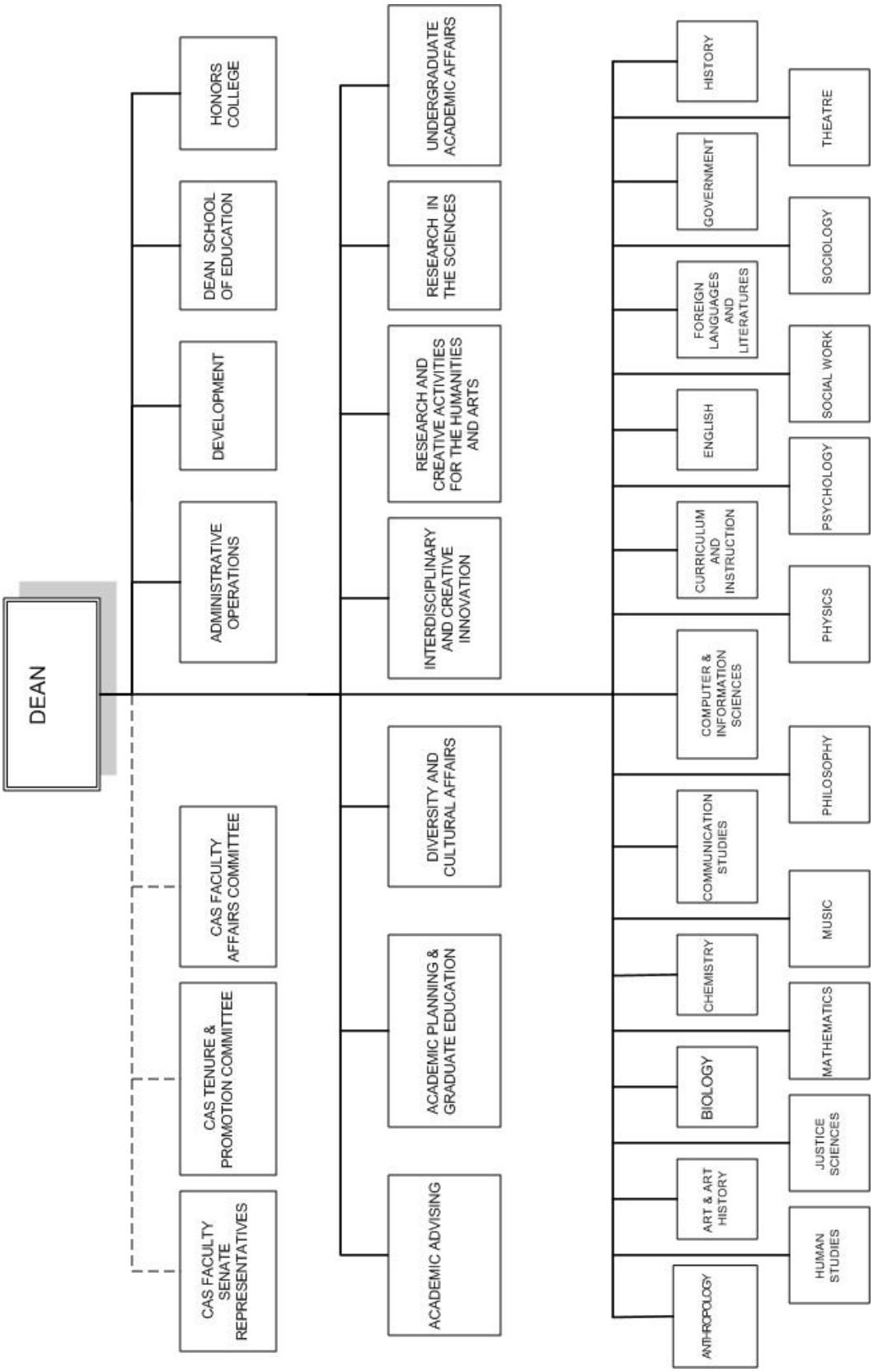
Appendices

Appendix A

College of Arts and Sciences Organizational Chart

(University of Alabama at Birmingham College of Arts and Sciences, n.d.)



University of Alabama at Birmingham College of Arts and Sciences (n.d.).Retrieved from: http://www.uab.edu/cas/images/FINAL_FINAL.jpg

Appendix B

Use of Data Permission Letter

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
Office of Planning and Analysis

July 23, 2012

UAB Institutional Review Board
Room 470, Administration Building (AB)
701 20th Street South, Birmingham, AL 35294-0104

To whom it may concern,

I, Glenna Brown, as Associate Provost for Planning and Analysis at UAB, agree for Abbygail T. Langham to use institutional records, documents, and datasets housed within the Office of Planning and Analysis for her Ph.D. dissertation research on the impact of an academic realignment on the College of Arts and Sciences at UAB as measured by the three main justifications mentioned by the university's administrators--to improve interdisciplinarity, enhance student services/strategic investments, and create financial efficiencies. The information gathered for her study will come from already existing regularly collected data securely stored in databases and electronic files within the office. The Office of Planning and Analysis staff uses the existing data for institutional research, publication and press release purposes as well as for internal communication purposes. The information used for Abbygail's study will be de-identified by Office of Planning and Analysis employees prior to her performing any analyses.

No data before the fall term of the 2008 academic year or after the fall term of the 2011 academic year will be used in her research. Data for the study will be obtained through archival-type data that are regularly collected each semester for institutional research purposes. The existing datasets pertaining to faculty, staff, and students that are to be used for the purposes of Abbygail's research will include no identifiers.

I acknowledge that the dissertation research will be conducted outside of the researcher's professional full-time responsibilities as the Coordinator of Institutional Research in the Office of Planning and Analysis at UAB. The data to be used in this study are information to which Abbygail already has access as a part of her job function although, for the purposes of her independent research study, all identifiers will be removed from the datasets used.

The data will be analyzed and reported/published in aggregated form only. Each individual's records currently stored within the archived records will be made confidential with no identifiers linked to participants. There is no potential for harm to the participants, other than that which they would normally encounter in their daily lives.

Glenna Brown

Glenna Brown, Ph.D.

July 23, 2012

Date

420 Administration Building
701 20th Street South
205.934.2384
Fax 205.934.3179

Mailing Address:
AB 420
1530 3RD AVE S
BIRMINGHAM AL 35294-0104

Appendix C

IRB Approval Letter

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Institutional Review Board for Human Use

Form 4: IRB Approval Form
Identification and Certification of Research
Projects Involving Human Subjects

UAB's Institutional Review Boards for Human Use (IRBs) have an approved Federalwide Assurance with the Office for Human Research Protections (OHRP). The Assurance number is FWA00005960 and it expires on January 24, 2017. The UAB IRBs are also in compliance with 21 CFR Parts 50 and 56.

Principal Investigator:	LANGHAM, ABBYGAIL T
Co-Investigator(s):	
Protocol Number:	**E120508002**
Protocol Title:	*Managing Change: Academic Realignment in Higher Education During a Time of Economic Hardship: An Investigation of the Impact Within a Realigned Academic Unit*

The above project was reviewed on 5/14/12. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services. This project qualifies as an exemption as defined in 45CF46.101, paragraph 4.

This project received EXEMPT review.

IRB Approval Date: 5/14/12

Date IRB Approval Issued: 5/15/12

Cari Oliver
Assistant Director, Office of the
Institutional Review Board for Human
Use (IRB)

Investigators please note:

IRB approval is given for one year unless otherwise noted. For projects subject to annual review research activities may not continue past the one year anniversary of the IRB approval date.

Any modifications in the study methodology, protocol and/or consent form must be submitted for review and approval to the IRB prior to implementation.

Adverse Events and/or unanticipated risks to subjects or others at UAB or other participating institutions must be reported promptly to the IRB.

470 Administration Building
701 20th Street South
205.934.3789
Fax 205.934.1301
irb@uab.edu

The University of
Alabama at Birmingham
Mailing Address:
AB 470
1530 3RD AVE S
BIRMINGHAM AL 35294-0104

Appendix D

IRB Amendment Approval Form

Project Revision/Amendment Form

Form version: June 26, 2012

In MS Word, click in the white boxes and type your text; double-click checkboxes to check/uncheck.

- **Federal regulations require IRB approval before implementing proposed changes. See Section 14 of the IRB Guidebook for investigators for additional information.**
- **Change means any change, in content or form, to the protocol, consent form, or any supportive materials (such as the Investigator's Brochure, questionnaires, surveys, advertisements, etc.). See Item 4 for more examples.**

1. Today's Date	7/23/2012

2. Principal Investigator (PI)

Name (with degree)	Abbygail T. Langham, Ph.D. candidate	**Blazer ID**	B00681266
Department	Human Studies – Educational Leadership	**Division (if applicable)**	
Office Address	AB 420 - 0104	**Office Phone**	205-934-3254
E-mail	langhat@uab.edu	**Fax Number**	205-934-3179

Contact person who should receive copies of IRB correspondence (Optional)

Name		**E-Mail**	
Phone		**Fax Number**	
Office Address (if different from PI)			

3. UAB IRB Protocol Identification

3.a. Protocol Number	E120508002
3.b. Protocol Title	*Managing Change: Academic Realignment in Higher Education During a Time of Economic Hardship: An Investigation of the Impact Within a Realigned Academic Unit*

3.c. Current Status of Protocol—Check ONE box at left; provide numbers and dates where applicable

- ☒ **Study has not yet begun** — **No participants, data, or specimens have been entered.**
- ☐ **In progress, open to accrual** — **Number of participants, data, or specimens entered:**
- ☐ **Enrollment temporarily suspended by sponsor**
- ☐ **Closed to accrual, but procedures continue as defined in the protocol (therapy, intervention, follow-up visits, etc.)**
  - **Date closed:**
  - **Number of participants receiving interventions:**
  - **Number of participants in long-term follow-up only:**
- ☐ **Closed to accrual, and only data analysis continues**
  - **Date closed:**
  - **Total number of participants entered:**

4. Types of Change

Check all types of change that apply, and describe the changes in Item 5.c. or 5.d. as applicable. To help avoid delay in IRB review, please ensure that you provide the required materials and/or information for each type of change checked.

- ☒ **Protocol revision (change in the IRB-approved protocol)**
  In Item 5.c., if applicable, provide sponsor's protocol version number, amendment number, update number, etc.
- ☐ **Protocol amendment (addition to the IRB-approved protocol)**
  In Item 5.c., if applicable, provide funding application document from sponsor, as well as sponsor's protocol version number, amendment number, update number, etc.
- ☐ **Add or remove personnel**
  In Item 5.c., include name, title/degree, department/division, institutional affiliation, and role(s) in research, and address whether new personnel have any conflict of interest. See "Change in Principal Investigator" in the IRB Guidebook if the principal investigator is being changed.
  - ☐ **Add graduate student(s) or postdoctoral fellow(s) working toward thesis, dissertation, or publication**
    In Item 5.c., (a) identify these individuals by name; (b) provide the working title of the thesis, dissertation, or publication; and (c) indicate whether or not the student's analysis differs in any way from the purpose of the research described in the IRB-approved HSP (e.g., a secondary analysis of data obtained under this HSP).
- ☐ **Change in source of funding; change or add funding**
  In Item 5.c., describe the change or addition in detail, include the applicable OSP proposal number(s), and provide a copy of the application as funded (or as submitted to the sponsor if pending). Note that some changes in funding may require a new IRB application.

☐	**Add or remove performance sites** In Item 5.c., identify the site and location, and describe the research-related procedures performed there. If adding site(s), attach notification of permission or IRB approval to perform research there. Also include copy of subcontract, if applicable. If this protocol includes acting as the Coordinating Center for a study, attach IRB approval from any non-UAB site added.
☐	**Add or change a genetic component or storage of samples and/or data component—this could include data submissions for Genome-Wide Association Studies (GWAS)** To assist you in revising or preparing your submission, please see the IRB Guidebook for Investigators or call the IRB office at 934-3789.
☐	**Suspend, re-open, or permanently close protocol to accrual of individuals, data, or samples (IRB approval to remain active)** In Item 5.c., indicate the action, provide applicable dates and reasons for action; attach supporting documentation.
☐	**Report being forwarded to IRB (e.g., DSMB, sponsor or other monitor)** In Item 5.c., include date and source of report, summarize findings, and indicate any recommendations.
☐	**Revise or amend consent, assent form(s)** Complete Item 5.d.
☒	**Addendum (new) consent form** Complete Item 5.d.
☐	**Add or revise recruitment materials** Complete Item 5.d.
☐	**Other (e.g., investigator brochure)** Indicate the type of change in the space below, and provide details in Item 5.c. or 5.d. as applicable. Include a copy of all affected documents, with revisions highlighted as applicable.

▶

5. Description and Rationale

In Item 5.a. and 5.b, check Yes **or** No **and see instructions for** Yes **responses.**
In Item 5.c. and 5.d, describe—and explain the reason for—the change(s) noted in Item 4.

☐Yes ☒No	**5.a. Are any of the participants enrolled as normal, healthy controls?** If yes, describe in detail in Item 5.c. how this change will affect those participants.
☐Yes ☒No	**5.b. Does the change affect subject participation, such as procedures, risks, costs, location of services, etc.?** If yes, FAP-designated units complete a FAP submission and send to fap@uab.edu. Identify the FAP-designated unit in Item 5.c. For more details on the UAB FAP, see www.uab.edu/cto.

5.c. Protocol Changes: In the space below, briefly describe—and explain the reason for—all change(s) to the protocol.

▶ Protocol Number: E120508002

▶ Reason for change - Change of dissertation title was recommended by dissertation committee. The new title will be: *Academic Realignment: An Investigation of Change Within a New Academic Unit at a Research University.*

▶ Reason for change - Additional year of de-identified archived data to be collected at the recommendation of dissertation committee members. The original IRB exemption application only mentioned data for the following years: 2009, 2010, and 2011. I now plan to include 2008.

▶ Reason for change – Dissertation committee recommended that an additional statistical test be performed using the de-identified archived data. In addition to calculating the proportion of staff to students, staff to faculty, and administrators to faculty, I will now also be calculating the proportion of faculty to students. This will not change my data collection at all. The same original archived data will be used. I will just be looking at it in an additional way.

▶ Reason for change – Dissertation committee recommended changing the statistical method for the study from from *t*-tests *to* z-tests.

▶ Reason for change – A data collection request memo has now been drafted to ask for de-identified datasets from employees in UAB's Office of Planning and Analysis. See question 5.d.

- Reason for change – A revised letter of consent from the Associate Provost for Planning and Analysis was drafted and signed to reflect the additional year of data to be collected.

- Reason for change- Removal of research questions and hypotheses from IRB exemption review application was suggested by dissertation committee.

5.d. Consent and Recruitment Changes: In the space below,
(a) describe all changes to IRB-approved forms or recruitment materials and the reasons for them;
(b) describe the reasons for the addition of any materials (e.g., addendum consent, recruitment); and
(c) indicate either how and when you will reconsent enrolled participants or why reconsenting is not necessary (not applicable for recruitment materials).

Also, indicate the number of forms changed or added. For new forms, provide 1 copy. For revised documents, provide 3 copies:
• a copy of the currently approved document (showing the IRB approval stamp, if applicable)
• a revised copy highlighting all proposed changes with "tracked" changes
• a revised copy for the IRB approval stamp.

- (a) Changes to the IRB-approved forms and materials will include the addition of a data collection request memo that has been drafted to ask for de-identified datasets from employees in UAB's Office of Planning and Analysis, a revised letter of consent from the Associate Provost for Planning and Analysis, and the revisions noted by Microsoft Word's tracked changes in the amended IRB exemption application. The reasons for the changes are described in question 5.c.

- (b) Reason for additional material – A formal data collection request memo was drafted in order to verify that a formal request was made by the PI to obtain the archived datasets housed in the Office of Planning and Analysis.

- (c) Reconsenting was necessary. The original signed letter of consent from the Associate Provost of Planning and Analysis did not include the additional year of data to be collected (2008). The revised consent form is signed and attached.

- **Please see attached documents.**

Signature of Principal Investigator Abigail T. Langston Date 7/23/2012

FOR IRB USE ONLY

☑ Received & Noted ☐ Approved Expedited* ☐ To Convened IRB

C. Olsen 7/24/12
Signature (Chair, Vice-Chair, Designee) Date

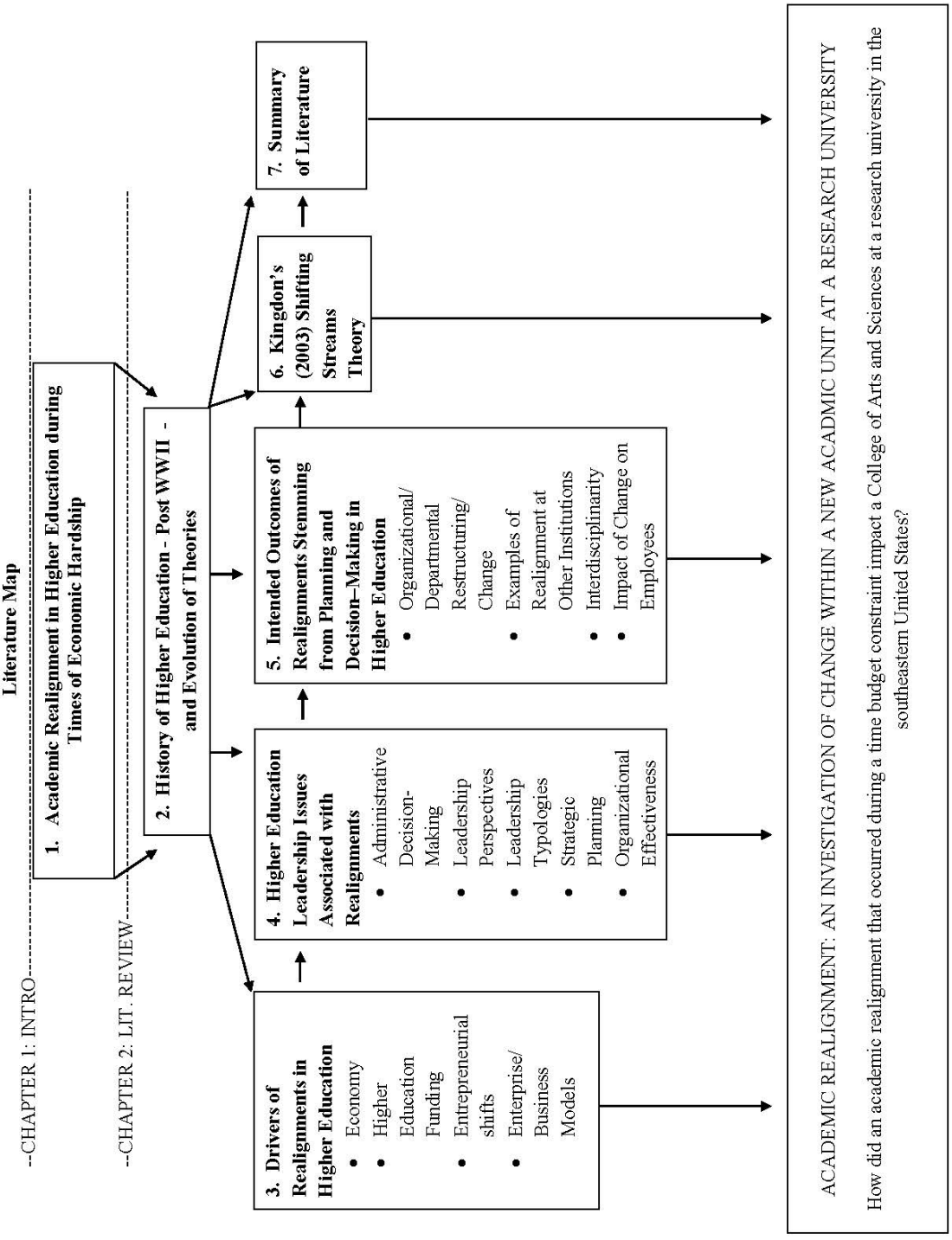
DOLA 5/14/12

Change to Expedited Category Y / N / (NA)

*No change to IRB's previous determination of approval criteria at 45 CFR 46.111 or 21 CFR 56.111

Appendix E

Literature Review Map


Literature Map
--CHAPTER 1: INTRO--
--CHAPTER 2: LIT. REVIEW--
1. Academic Realignment in Higher Education during Times of Economic Hardship
2. History of Higher Education - Post WWII - and Evolution of Theories
3. Drivers of Realignments in Higher Education
Economy
Higher Education Funding
Entrepreneurial shifts
Enterprise/ Business Models
4. Higher Education Leadership Issues Associated with Realignments
Administrative Decision-Making
Leadership Perspectives
Leadership Typologies
Strategic Planning
Organizational Effectiveness
5. Intended Outcomes of Realignments Stemming from Planning and Decision–Making in Higher Education
Organizational/ Departmental Restructuring/ Change
Examples of Realignment at Other Institutions
Interdisciplinarity
Impact of Change on Employees
6. Kingdon's (2003) Shifting Streams Theory
7. Summary of Literature
ACADEMIC REALIGNMENT: AN INVESTIGATION OF CHANGE WITHIN A NEW ACADMIC UNIT AT A RESEARCH UNIVERSITY
How did an academic realignment that occurred during a time budget constraint impact a College of Arts and Sciences at a research university in the southeastern United States?

Appendix F

UAB Headcount Enrollment Fall 2008

(Office of Planning and Analysis, 2009)

UAB FALL SEMESTER 2008 ENROLLMENT
BY SCHOOL AND LEVEL

School	Under-graduate	Graduate	First Profes-sional	Total for Reporting[1]	Advanced Profes-sional[2]	Total incl. Adv. Prof.
Arts and Humanities	1,327	83		1,410		1,410
Business[3]	1,525	345		1,870		1,870
Dentistry	21	2	228	251	93	344
Education	782	792		1,574		1,574
Engineering	728	304		1,032	5	1,037
Health Professions[3]	987	792		1,779	15	1,794
Joint Health Sciences		449		449		449
Medicine			623	623	973	1,596
Natural Sciences and Mathematics	1,509	190		1,699	16	1,715
Nursing	473	776		1,249		1,249
Optometry		27	174	201	13	214
Public Health		409		409	14	423
Social and Behavioral Sciences	1,563	220		1,783	3	1,786
Unclassified[4]	1,454	366		1,820		1,820
TOTAL	10,369	4,755	1,025	16,149	1,132	17,281

[1]This total is reported to state and federal agencies and is included in documents such as surveys and questionnaires.
[2]Advanced Professionals are interns, residents, and postdoctoral fellows plus students in postgraduate programs in dentistry and optometry.
[3]Included in the School of Health Professions graduate count are 31 students enrolled in the Administration Health Services program offered jointly by the School of Business and the School of Health Professions.
[4]Unclassified includes undergraduate students in General Studies and nondegree graduate students.

Source: UAB Headcount Enrollment Report, Fall Semester 2008

Appendix G

UAB Headcount Enrollment Fall 2011

(Office of Planning and Analysis, 2012, *UAB Facts & Figures 2011-2012*)

UAB FALL SEMESTER 2011 ENROLLMENT
BY SCHOOL AND LEVEL

ACADEMIC UNIT	UNDER-GRADUATE	MASTERS/ POST-MASTERS/ CERT.	DOCTORAL-RESEARCH/ SCHOLARSHIP[1]	DOCTORAL-PROFESSIONAL PRACTICE[1]	DOCTORAL-OTHER[1]	TOTAL FOR REPORTING[2]	ADV. PROF.	GRAND TOTAL
Arts and Sciences Total	5,564	1,039	315	26		6,944	11	6,955
Arts and Sciences (excl. Ed.)	4,589	301	240			5,130	11	5,141
Education	975	738	75	26		1,814		1,814
Business	1,675	361				2,036		2,036
Dentistry	25	2		237		264	96	360
Engineering	858	273	109			1,240	2	1,242
Health Professions	967	741	52	112	35	1,907	11	1,918
Joint Health Sciences		3	396			399		399
Medicine				635		635	1,043	1,678
Nursing	546	1,132	48	154		1,880	1	1,881
Optometry		3	20	173		196	16	212
Public Health		194	88	28		310	22	332
Unclassified[3]	1,493	271				1,764		1,764
TOTAL	11,128	4,019	1,028	1,365	35	17,575	1,202	18,777

Graduate Total (Excluding D.M.D., M.D., and O.D.)	5,402
D.M.D., M.D, and O.D. Total	1,045

[1]Starting in fall 2010, the U.S. Department of Education divided the classification of doctoral degrees into the following categories:
Doctor's degree - research/scholarship - A Ph.D. or other doctor's degree that requires advanced work beyond the master's level, including the preparation and defense of a dissertation based on original research, or the planning and execution of an original project demonstrating substantial artistic or scholarly achievement. At UAB, this category includes the Ph.D.

Doctor's degree - professional practice - A doctor's degree that is conferred upon completion of a program providing the knowledge and skills for the recognition, credential, or license required for professional practice. The degree is awarded after a period of study such that the total time to the degree, including both pre-professional and professional preparation, equals at least six full-time equivalent academic years. Some of these degrees were formerly classified as "first-professional." At UAB, this category includes the following degrees: D.M.D., D.N.P., D.P.T., Dr.P.H., Ed.D., M.D., O.D.

Doctor's degree - other - A doctor's degree that does not meet the definition of a doctor's degree - research/scholarship or a doctor's degree - professional practice. At UAB, this category includes the D.Sc. and D.Sc.P.T.

[2]This total is reported to state and federal agencies and is included in documents such as surveys and questionnaires.

[3]Unclassified includes undergraduate students in General Studies and nondegree graduate students not assigned to a school or college.

Note:
All counts are as of August 23, 2011, the end of the drop/add period for the fall 2011 semester. All counts are for students enrolled in credit courses. Excluded from the count are students who are only auditing courses and persons taking only continuing education or other noncredit courses.

Advanced Professionals are interns, residents, and postdoctoral fellows who are here at UAB to participate in specialized training beyond their academic or professional degrees. For the Schools of Dentistry, Medicine, and Optometry, figures are obtained directly from those schools. The source of the data for Arts and Sciences, Engineering, Health Professions, and Public Health is the Office of Postdoctoral Education.

Source: UAB Headcount Enrollment Report, Fall Semester 2011

Appendix H

Pre-CAS Demographics Fall 2008

(Office of Planning and Analysis, 2008)

SCHOOL OF ARTS & HUMANITIES, NATURAL SCIENCES & MATHEMATICS, AND SOCIAL & BEHAVIORAL SCIENCES (EXCLUDING SCHOOL OF EDUCATION)
TOTAL STUDENT DEMOGRAPHICS*
FALL 2008

		Full-time		Part-time		Total	
		Number	Percent	Number	Percent	Number	Percent
Total		3,647	74.6%	1,245	25.4%	4,892	100.0%
Gender	Female	2,139	43.7%	742	15.2%	2,881	58.9%
	Male	1,508	30.8%	503	10.3%	2,011	41.1%
Race	White	2,139	43.7%	748	15.3%	2,887	59.0%
	Black	909	18.6%	365	7.5%	1,274	26.0%
	Asian / Pacific Islander	198	4.0%	37	0.8%	235	4.8%
	Hispanic	65	1.3%	18	0.4%	83	1.7%
	American Indian	18	0.4%	5	0.1%	23	0.5%
	Non-Resident Alien	145	3.0%	22	0.4%	167	3.4%
	Other / Multicultural	68	1.4%	11	0.2%	79	1.6%
	Unknown	105	2.1%	39	0.8%	144	2.9%
Class	Freshman	656	13.4%	50	1.0%	706	14.4%
	Sophomore	729	14.9%	123	2.5%	852	17.4%
	Junior	841	17.2%	207	4.2%	1,048	21.4%
	Senior	989	20.2%	510	10.4%	1,499	30.6%
	Post Baccalaureate	63	1.3%	194	4.0%	257	5.3%
	Other Undergraduate	19	0.4%	18	0.4%	37	0.8%
	Master's	164	3.4%	115	2.4%	279	5.7%
	Post Masters	0	0.0%	0	0.0%	0	0.0%
	Doctoral	186	3.8%	28	0.6%	214	4.4%
	Post Doctoral	0	0.0%	0	0.0%	0	0.0%
	Non-Degree Graduate	0	0.0%	0	0.0%	0	0.0%
Age	Under 19	459	9.4%	10	0.2%	469	9.6%
	19-21	1,762	36.0%	119	2.4%	1,881	38.5%
	22-25	967	19.8%	446	9.1%	1,413	28.9%
	26-30	286	5.8%	281	5.7%	567	11.6%
	31-35	82	1.7%	149	3.0%	231	4.7%
	Over 35	91	1.9%	238	4.9%	329	6.7%
	Unknown	0	0.0%	2	0.0%	2	0.0%
Source	Jefferson County	1,314	26.9%	748	15.3%	2,062	42.2%
	Other Metro Area Counties**	478	9.8%	202	4.1%	680	13.9%
	Other AL Counties	1,379	28.2%	209	4.3%	1,588	32.5%
	Other States	331	6.8%	64	1.3%	395	8.1%
	Other Countries	145	3.0%	22	0.4%	167	3.4%
	Unknown	0	0.0%	0	0.0%	0	0.0%

SCHOOL OF ARTS & HUMANITIES, NATURAL SCIENCES & MATHEMATICS, AND SOCIAL & BEHAVIORAL SCIENCES (EXCLUDING SCHOOL OF EDUCATION)
TOTAL STUDENT DEMOGRAPHICS*
FALL 2008

		Full-time		Part-time		Total	
		Number	Percent	Number	Percent	Number	Percent
Major	African American Studies	7	0.1%	10	0.2%	17	0.3%
	Anthropology	31	0.6%	15	0.3%	46	0.9%
	Applied Math	18	0.4%	0	0.0%	18	0.4%
	Art	157	3.2%	109	2.2%	266	5.4%
	Art History	6	0.1%	8	0.2%	14	0.3%
	Biology	799	16.3%	173	3.5%	972	19.9%
	Chemistry	225	4.6%	38	0.8%	263	5.4%
	Communication Studies	293	6.0%	104	2.1%	397	8.1%
	Computer & Info Sci	172	3.5%	93	1.9%	265	5.4%
	Criminal Justice	202	4.1%	100	2.0%	302	6.2%
	Economics (B.A.)	10	0.2%	2	0.0%	12	0.2%
	English	149	3.0%	92	1.9%	241	4.9%
	Foreign Lang. & Lit.	58	1.2%	31	0.6%	89	1.8%
	Forensic Science	15	0.3%	2	0.0%	17	0.3%
	French	1	0.0%	0	0.0%	1	0.0%
	History	157	3.2%	73	1.5%	230	4.7%
	Individually Designed Major	2	0.0%	1	0.0%	3	0.1%
	Internat'l Studies	69	1.4%	4	0.1%	73	1.5%
	Mathematics	67	1.4%	22	0.4%	89	1.8%
	Medical Sociology	15	0.3%	7	0.1%	22	0.4%
	Music	82	1.7%	17	0.3%	99	2.0%
	Natural Science	3	0.1%	5	0.1%	8	0.2%
	Philosophy	67	1.4%	21	0.4%	88	1.8%
	Physics	46	0.9%	7	0.1%	53	1.1%
	Political Science	100	2.0%	23	0.5%	123	2.5%
	Pre-Music	39	0.8%	4	0.1%	43	0.9%
	Psychology	511	10.4%	139	2.8%	650	13.3%
	Public Administration	38	0.8%	32	0.7%	70	1.4%
	Social Work	102	2.1%	32	0.7%	134	2.7%
	Sociology	52	1.1%	34	0.7%	86	1.8%
	Spanish	14	0.3%	3	0.1%	17	0.3%
	Studio Art	1	0.0%	3	0.1%	4	0.1%
	Theatre	73	1.5%	14	0.3%	87	1.8%
	Undecided	66	1.3%	27	0.6%	93	1.9%

*The existing fall 2008 totals for these schools were aggregated for comparison purposes on this report.

**Blount, Shelby, St. Clair, & Walker counties

Source: Planning and Analysis

Appendix I

CAS Demographics Fall 2011

(Office of Planning and Analysis, 2011)

COLLEGE OF ARTS AND SCIENCES (EXCLUDING SCHOOL OF EDUCATION)
TOTAL STUDENT DEMOGRAPHICS*
FALL 2011

		Full-time		Part-time		Total	
		Number	Percent	Number	Percent	Number	Percent
Total		3,868	75.4%	1,262	24.6%	5,130	100.0%
Gender	Female	2,203	42.9%	741	14.4%	2,944	57.4%
	Male	1,665	32.5%	521	10.2%	2,186	42.6%
Race	Non-Resident Alien	140	2.7%	23	0.4%	163	3.2%
	Hispanic/Latino	105	2.0%	29	0.6%	134	2.6%
	American Indian or Alaskan Native	15	0.3%	3	0.1%	18	0.4%
	Asian	220	4.3%	44	0.9%	264	5.1%
	Black or African American	915	17.8%	329	6.4%	1,244	24.2%
	Hawaiian or Pacific Islander	1	0.0%	0	0.0%	1	0.0%
	White	2,263	44.1%	774	15.1%	3,037	59.2%
	Two or More Races	97	1.9%	21	0.4%	118	2.3%
	Unknown	112	2.2%	39	0.8%	151	2.9%
Class	Freshman	812	15.8%	50	1.0%	862	16.8%
	Sophomore	765	14.9%	118	2.3%	883	17.2%
	Junior	903	17.6%	211	4.1%	1,114	21.7%
	Senior	951	18.5%	488	9.5%	1,439	28.1%
	Post Baccalaureate Degree Seeking	46	0.9%	158	3.1%	204	4.0%
	Post Baccalaureate Non-Degree	5	0.1%	53	1.0%	58	1.1%
	Other Undergraduate	14	0.3%	15	0.3%	29	0.6%
	Graduate Certificate	0	0.0%	0	0.0%	0	0.0%
	Master's	163	3.2%	138	2.7%	301	5.9%
	Post Masters	0	0.0%	0	0.0%	0	0.0%
	Doctoral	209	4.1%	31	0.6%	240	4.7%
	Post Doctoral	0	0.0%	0	0.0%	0	0.0%
	Non-Degree Graduate	0	0.0%	0	0.0%	0	0.0%
Age	Under 19	609	11.9%	7	0.1%	616	12.0%
	19-21	1,835	35.8%	159	3.1%	1,994	38.9%
	22-25	908	17.7%	460	9.0%	1,368	26.7%
	26-30	302	5.9%	270	5.3%	572	11.2%
	31-35	100	1.9%	114	2.2%	214	4.2%
	Over 35	114	2.2%	252	4.9%	366	7.1%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Source	Jefferson County	1,393	27.2%	714	13.9%	2,107	41.1%
	Other Metro Area Counties**	551	10.7%	240	4.7%	791	15.4%
	Other AL Counties	1,427	27.8%	225	4.4%	1,652	32.2%
	Other States	356	6.9%	60	1.2%	416	8.1%
	Other Countries	140	2.7%	23	0.4%	163	3.2%
	Unknown	1	0.0%	0	0.0%	1	0.0%

COLLEGE OF ARTS AND SCIENCES (EXCLUDING SCHOOL OF EDUCATION)
TOTAL STUDENT DEMOGRAPHICS*
FALL 2011

		Full-time		Part-time		Total	
		Number	Percent	Number	Percent	Number	Percent
Major	African American Studies	5	0.1%	6	0.1%	11	0.2%
	Anthropology	69	1.3%	18	0.4%	87	1.7%
	Applied Math	20	0.4%	5	0.1%	25	0.5%
	Art	182	3.5%	78	1.5%	260	5.1%
	Art History	7	0.1%	6	0.1%	13	0.3%
	Biology	846	16.5%	209	4.1%	1,055	20.6%
	Chemistry	257	5.0%	44	0.9%	301	5.9%
	Communication Mgt.	5	0.1%	14	0.3%	19	0.4%
	Communication Studies	261	5.1%	70	1.4%	331	6.5%
	Computer & Info Sci	187	3.6%	99	1.9%	286	5.6%
	Computer Forensic Sec. Mgt.	3	0.1%	0	0.0%	3	0.1%
	Criminal Justice	216	4.2%	92	1.8%	308	6.0%
	Economics (B.A.)	8	0.2%	8	0.2%	16	0.3%
	English	163	3.2%	67	1.3%	230	4.5%
	Foreign Lang. & Lit.	39	0.8%	25	0.5%	64	1.2%
	Forensic Science	16	0.3%	1	0.0%	17	0.3%
	History	128	2.5%	64	1.2%	192	3.7%
	Individually Designed Major	22	0.4%	9	0.2%	31	0.6%
	International Studies	85	1.7%	13	0.3%	98	1.9%
	Mathematics	80	1.6%	31	0.6%	111	2.2%
	Medical Sociology	14	0.3%	7	0.1%	21	0.4%
	Music	47	0.9%	14	0.3%	61	1.2%
	Natural Science	8	0.2%	5	0.1%	13	0.3%
	Neuroscience	45	0.9%	0	0.0%	45	0.9%
	Philosophy	51	1.0%	14	0.3%	65	1.3%
	Physics	80	1.6%	7	0.1%	87	1.7%
	Political Science	72	1.4%	15	0.3%	87	1.7%
	Pre-Music	30	0.6%	7	0.1%	37	0.7%
	Pre-Neuroscience	35	0.7%	0	0.0%	35	0.7%
	Psychology	549	10.7%	176	3.4%	725	14.1%
	Public Administration	47	0.9%	54	1.1%	101	2.0%
	Social Work	137	2.7%	53	1.0%	190	3.7%
	Sociology	79	1.5%	32	0.6%	111	2.2%
	Theatre	73	1.4%	14	0.3%	87	1.7%
	Undecided	2	0.0%	5	0.1%	7	0.1%

*Does not include 11 advanced professionals

**Blount, Shelby, St. Clair, & Walker counties

Source: Planning and Analysis

Appendix J

School of Education Demographics Fall 2008

(Office of Planning and Analysis, 2008)

SCHOOL OF EDUCATION
TOTAL STUDENT DEMOGRAPHICS
FALL 2008

		Full-time		Part-time		Total	
		Number	Percent	Number	Percent	Number	Percent
Total		834	53.0%	740	47.0%	1,574	100.0%
Gender	Female	670	42.6%	577	36.7%	1,247	79.2%
	Male	164	10.4%	163	10.4%	327	20.8%
Race	White	596	37.9%	526	33.4%	1,122	71.3%
	Black	192	12.2%	188	11.9%	380	24.1%
	Asian / Pacific Islander	6	0.4%	3	0.2%	9	0.6%
	Hispanic	7	0.4%	6	0.4%	13	0.8%
	American Indian	3	0.2%	2	0.1%	5	0.3%
	Non-Resident Alien	15	1.0%	6	0.4%	21	1.3%
	Other / Multicultural	2	0.1%	3	0.2%	5	0.3%
	Unknown	13	0.8%	6	0.4%	19	1.2%
Class	Freshman	76	4.8%	8	0.5%	84	5.3%
	Sophomore	109	6.9%	26	1.7%	135	8.6%
	Junior	155	9.8%	44	2.8%	199	12.6%
	Senior	204	13.0%	75	4.8%	279	17.7%
	Post Baccalaureate	18	1.1%	61	3.9%	79	5.0%
	Other Undergraduate	3	0.2%	3	0.2%	6	0.4%
	Master's	245	15.6%	373	23.7%	618	39.3%
	Post Masters	9	0.6%	64	4.1%	73	4.6%
	Doctoral	15	1.0%	86	5.5%	101	6.4%
	Post Doctoral	0	0.0%	0	0.0%	0	0.0%
	Non-Degree Graduate	0	0.0%	0	0.0%	0	0.0%
Age	Under 19	46	2.9%	4	0.3%	50	3.2%
	19-21	266	16.9%	26	1.7%	292	18.6%
	22-25	290	18.4%	169	10.7%	459	29.2%
	26-30	106	6.7%	201	12.8%	307	19.5%
	31-35	45	2.9%	97	6.2%	142	9.0%
	Over 35	81	5.1%	243	15.4%	324	20.6%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Source	Jefferson County	436	27.7%	445	28.3%	881	56.0%
	Other Metro Area Counties*	138	8.8%	119	7.6%	257	16.3%
	Other AL Counties	196	12.5%	141	9.0%	337	21.4%
	Other States	49	3.1%	29	1.8%	78	5.0%
	Other Countries	15	1.0%	6	0.4%	21	1.3%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Major	Arts Education	18	1.1%	75	4.8%	93	5.9%
	Counseling	21	1.3%	49	3.1%	70	4.4%
	Early Childhood Education	132	8.4%	70	4.4%	202	12.8%
	Elementary Education	234	14.9%	105	6.7%	339	21.5%
	High School Education	165	10.5%	122	7.8%	287	18.2%
	Educational Leadership	8	0.5%	86	5.5%	94	6.0%
	Education (Ed.S.)	5	0.3%	39	2.5%	44	2.8%
	Special Education	62	3.9%	87	5.5%	149	9.5%
	Health Education	52	3.3%	26	1.7%	78	5.0%
	Health Ed/Promotion**	6	0.4%	20	1.3%	26	1.7%
	Music Education	0	0.0%	0	0.0%	0	0.0%
	Physical Education	118	7.5%	46	2.9%	164	10.4%
	School Psych	0	0.0%	0	0.0%	0	0.0%
	Indiv. Designed	0	0.0%	0	0.0%	0	0.0%
	Undecided	13	0.8%	15	1.0%	28	1.8%

*Blount, Shelby, St. Clair, & Walker counties

**Joint Program with School of Public Health. Students with this major appear in either the School of Education or the School of Public Health (but not in both schools).

Source: Planning and Analysis

Appendix K

School of Education Demographics Fall 2011

(Office of Planning and Analysis, 2011)

SCHOOL OF EDUCATION
TOTAL STUDENT DEMOGRAPHICS
FALL 2011

		Full-time		Part-time		Total	
		Number	Percent	Number	Percent	Number	Percent
Total		1,012	55.8%	802	44.2%	1,814	100.0%
Gender	Female	760	41.9%	602	33.2%	1,362	75.1%
	Male	252	13.9%	200	11.0%	452	24.9%
Race	Non-Resident Alien	6	0.3%	4	0.2%	10	0.6%
	Hispanic/Latino	15	0.8%	12	0.7%	27	1.5%
	American Indian or Alaskan Native	2	0.1%	2	0.1%	4	0.2%
	Asian	13	0.7%	3	0.2%	16	0.9%
	Black or African American	236	13.0%	224	12.3%	460	25.4%
	Hawaiian or Pacific Islander	0	0.0%	0	0.0%	0	0.0%
	White	716	39.5%	545	30.0%	1,261	69.5%
	Two or More Races	10	0.6%	6	0.3%	16	0.9%
	Unknown	14	0.8%	6	0.3%	20	1.1%
Class	Freshman	96	5.3%	4	0.2%	100	5.5%
	Sophomore	157	8.7%	28	1.5%	185	10.2%
	Junior	194	10.7%	54	3.0%	248	13.7%
	Senior	265	14.6%	103	5.7%	368	20.3%
	Post Baccalaureate Degree Seeking	21	1.2%	45	2.5%	66	3.6%
	Post Baccalaureate Non-Degree	1	0.1%	5	0.3%	6	0.3%
	Other Undergraduate	0	0.0%	2	0.1%	2	0.1%
	Graduate Certificate	0	0.0%	0	0.0%	0	0.0%
	Master's	259	14.3%	420	23.2%	679	37.4%
	Post Masters	3	0.2%	56	3.1%	59	3.3%
	Doctoral	16	0.9%	85	4.7%	101	5.6%
	Post Doctoral	0	0.0%	0	0.0%	0	0.0%
	Non-Degree Graduate	0	0.0%	0	0.0%	0	0.0%
Age	Under 19	54	3.0%	1	0.1%	55	3.0%
	19-21	372	20.5%	25	1.4%	397	21.9%
	22-25	307	16.9%	166	9.2%	473	26.1%
	26-30	138	7.6%	189	10.4%	327	18.0%
	31-35	45	2.5%	110	6.1%	155	8.5%
	Over 35	96	5.3%	311	17.1%	407	22.4%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Source	Jefferson County	491	27.1%	475	26.2%	966	53.3%
	Other Metro Area Counties*	190	10.5%	149	8.2%	339	18.7%
	Other AL Counties	252	13.9%	149	8.2%	401	22.1%
	Other States	73	4.0%	25	1.4%	98	5.4%
	Other Countries	6	0.3%	4	0.2%	10	0.6%
	Unknown	0	0.0%	0	0.0%	0	0.0%
Major	Arts Education	9	0.5%	4	0.2%	13	0.7%
	Counseling	28	1.5%	61	3.4%	89	4.9%
	Early Childhood Education	280	15.4%	134	7.4%	414	22.8%
	Education	3	0.2%	19	1.0%	22	1.2%
	Educational Leadership	8	0.4%	142	7.8%	150	8.3%
	Elementary Education	84	4.6%	46	2.5%	130	7.2%
	English as a Second Language	22	1.2%	80	4.4%	102	5.6%
	Health Ed/Promotion**	4	0.2%	15	0.8%	19	1.0%
	Health Education	71	3.9%	46	2.5%	117	6.4%
	High School Education	204	11.2%	111	6.1%	315	17.4%
	Indiv. Designed	2	0.1%	0	0.0%	2	0.1%
	Physical Education	222	12.2%	67	3.7%	289	15.9%
	Reading Education	0	0.0%	3	0.2%	3	0.2%
	Special Education	53	2.9%	62	3.4%	115	6.3%
	Undecided	22	1.2%	12	0.7%	34	1.9%

*Blount, Shelby, St. Clair, & Walker counties
**Joint Program with School of Public Health. Students with this major appear in either the School of Education or the School of Public Health (but not in both schools).

Source: Planning and Analysis

Appendix L

UAB Workforce Trend

(Office of Planning and Analysis, 2012, *UAB Facts & figures 2011-2012)*

UAB WORK FORCE BY AREA, STATUS, GENDER, AND JOB CATEGORY*
2005-06 through 2011-12

	2005-06**	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
By Area**							
University	11,887	11,895	11,739	11,564	11,257	11,210	11,240
Hospital	6,650	6,870	7,069	7,086	7,182	7,409	7,744
Total	18,537	18,765	18,808	18,650	18,439	18,619	18,984
By Status							
Full-time	13,028	13,423	13,608	13,722	13,562	13,689	13,865
Part-time	5,509	5,342	5,200	4,928	4,877	4,930	5,119
Total	18,537	18,765	18,808	18,650	18,439	18,619	18,984
By Gender							
Men	6,568	6,521	6,640	6,661	6,554	6,593	6,683
Women	11,969	12,244	12,168	11,989	11,885	12,026	12,301
Total	18,537	18,765	18,808	18,650	18,439	18,619	18,984
By Job Category							
Executive/Administrative	280	294	334	340	345	318	326
Faculty***	2,118	2,212	2,248	2,249	2,224	2,244	2,289
Professional Nonfaculty	7,537	7,722	7,981	8,069	8,265	8,467	8,673
Secretarial/Clerical	4,782	4,707	4,446	4,246	3,807	3,751	3,765
Technical/Paraprofessional	1,708	1,665	1,648	1,621	1,670	1,767	1,779
Service Maintenance	1,701	1,799	1,770	1,750	1,762	1,707	1,776
Skilled Crafts	411	366	381	375	366	365	376
Total	18,537	18,765	18,808	18,650	18,439	18,619	18,984

*Figures include student workers, graduate assistants, hospital residents, postdoctoral employees, and adjunct instructors.
**In 2005-06, employees of the Health System were included in Hospital counts.
***Employees who also have faculty appointments are included in their primary occupational classification.

Source: Office of Human Resource Management Data Systems, data as of October of each year

Appendix M

UAB New Program Approval Process

(Office of Planning and Analysis, 2012, *UAB new program approval process)*

UAB New Program Approval Process

NOTIFICATION OF INTENT TO SUBMIT A PROPOSAL (NISP)

School-level

Approved by appropriate school-level committee and dean.

Undergraduate Programs

Institution-level

Reviewed by Vice Provost for Student and Faculty Success.
Reviewed by Faculty Senate Curriculum Committee.
Reviewed and approved by Provost.
Reviewed and approved by President.

External

Reviewed and approved for submission to ACHE by Board of Trustees.
Forwarded to ACHE.
Distributed to Provosts/Chief Academic Officers of state institutions for comments.
Comments forwarded to UAB for consideration.

Graduate Programs

Institution-level

Reviewed by the Graduate Council Advisory Committee or Ad Hoc New Programs Committee [meets 2nd Wednesday of each month; NISP due two weeks prior to meeting]
Reviewed and approved by Provost.
Reviewed and approved by President.

External

Reviewed and approved for submission to ACHE by Board of Trustees.
Forwarded to ACHE.
Distributed to Ala. Council of Graduate Deans (state-level) for comments.
Comments forwarded to UAB for consideration.

PROPOSAL

School-level

Approved by appropriate school-level committee and dean.

Undergraduate Programs

Institution-level

Reviewed by Vice Provost for Student and Faculty Success.
Reviewed by Faculty Senate Curriculum Committee.
Reviewed and approved by Provost.
Reviewed and approved by President.

External

Reviewed and approved for submission to ACHE by Board of Trustees.
Forwarded to ACHE.
Distributed to Provosts/Chief Academic Officers of state institutions for comments.
Reviewed by ACHE staff; recommendation developed.
Reviewed and approved by ACHE.
Approved by Board of Trustees.

Graduate Programs

Institution-level

Review by the Graduate Council Advisory Committee or Ad Hoc New Programs Committee [meets 2nd Wednesday of each month; proposal due one month prior to meeting].
Reviewed and approved by Provost.
Reviewed and approved by President.

External

Reviewed and approved for submission to ACHE by Board of Trustees.
Forwarded to ACHE.
Distributed to Ala. Council of Graduate Deans (state-level) for comments.
Reviewed by ACHE staff; recommendation developed.
Reviewed and approved by ACHE.
Approved by Board of Trustees.

Dates of Board of Trustees meetings and UAB internal deadlines for submission of items available at:
http://www.uab.edu/boardliaison/

Maintained by Office of Planning and Analysis
11/9/11

Appendix N

CAS Undergraduate Enrollment by Fall 2008-2011

Note: Highlighting indicates an interdisciplinary program

(Office of Planning and Analysis, 2011, *Enrollment by Major)*

UNIVERSITY OF ALABAMA AT BIRMINGHAM
COLLEGE OF ARTS & SCIENCES UNDERGRADUATE ENROLLMENT BY MAJOR
FALL TERMS 2008 THROUGH 2011

	Fall 2008	Fall 2009	Fall 2010	Fall 2011	% Change, 2008-2011
Arts and Sciences (Excl. Ed.)*					
African American Studies	17	17	11	11	-35.3%
Anthropology	41	43	64	76	85.4%
Art	254	250	262	260	2.4%
Art History	0	0	0	-	-
Biology	920	986	983	997	8.4%
Chemistry	232	295	293	263	13.4%
Comm. Studies	388	348	308	331	-14.7%
Computer & Info. Sci.	218	194	236	240	10.1%
Criminal Justice	287	244	276	297	3.5%
Economics (B. A.)	12	17	10	16	33.3%
English	193	200	204	195	1.0%
Foreign Lang. & Lit.	89	102	77	64	-28.1%
French	1	-	-		-
History	207	187	185	165	-20.3%
Individually Designed (A&H)	1	0	-	-	-
Individually Designed (A&S)	-	-	12	31	NA
Individually Designed (NSM)	0	0	-	-	-
Individually Designed (SBS)	2	1	-	-	-
International Studies	73	88	109	98	34.2%
Mathematics	76	77	93	105	38.2%
Music	99	83	89	61	-38.4%
Natural Science	8	11	14	13	62.5%
Neuroscience	-	3	17	45	NA
Philosophy	88	84	85	65	-26.1%
Physics	24	35	35	50	108.3%
Political Science	123	112	102	87	-29.3%
Pre-Music	43	35	30	37	-14.0%
Pre-Neuroscience	-	-	25	35	NA
Psychology	582	578	630	655	12.5%
Social Work	134	145	159	190	41.8%
Sociology	86	88	101	108	25.6%
Spanish	17	11	-	-	-
Spanish-Specific Purposes (Cert.)	-	1	0	0	NA
Studio Art	4	2	4	-	-
Theatre	87	94	87	87	0.0%
Undecided (A&H)	46	55	-	-	-
Undecided (A&S)	-	-	34	7	NA
Undecided (NSM)	31	27	-	-	-
Undecided (SBS)	16	20	-	-	-
A&S TOTAL	4,399	4,433	4,535	4,589	4.3%

UNIVERSITY OF ALABAMA AT BIRMINGHAM
COLLEGE OF ARTS & SCIENCES UNDERGRADUATE ENROLLMENT BY MAJOR
FALL TERMS 2008 THROUGH 2011

Education					
Early Childhood Education	149	194	299	350	134.9%
Elementary Education	229	225	117	42	-81.7%
High School Education	146	181	193	179	22.6%
Special Education	36	37	52	14	-61.1%
Health Education	48	50	60	86	79.2%
Physical Education	146	170	225	268	83.6%
Individually Designed	0	2	1	2	NA
Undecided - Education	28	41	25	34	21.4%
EDU TOTAL	782	900	972	975	24.7%

*Reported within the Schools of Arts and Humanities, Natural Sciences and Mathematics, and Social and Behavioral Sciences through fall 2009. Effective January 1, 2010, the Schools of Arts and Humanities, Education, Natural Sciences and Mathematics, and Social and Behavioral Sciences merged and realigned as the College of Arts and Sciences. While a part of the College of Arts and Sciences, the School of Education retained its school identity as a distinct unit.

- Indicates that major had not begun or has been discontinued.

Appendix O

CAS Graduate Enrollment by Major Fall 2008-2011

Note: Highlighting indicates an interdisciplinary program

(Office of Planning and Analysis, 2011, *Enrollment by Major)*

UNIVERSITY OF ALABAMA AT BIRMINGHAM
COLLEGE OF ARTS & SCIENCES GRADUATE ENROLLMENT BY MAJOR
FALL TERMS 2008 THROUGH 2011

	Fall 2008	Fall 2009	Fall 2010	Fall 2011	% Change, 2008-2011
Arts and Sciences (Excl. Ed.)*					
Anthropology	5	5	2	11	120.0%
Applied Mathematics	18	15	23	25	38.9%
Art History	14	16	13	13	-7.1%
Biology	52	45	45	58	11.5%
Chemistry	31	36	39	38	22.6%
Communications Management	21	26	24	19	-9.5%
Computer Forensic and Sec. Mngmt.	-	-	-	3	NA
Computer and Info. Sciences	47	54	48	46	-2.1%
Criminal Justice	15	18	11	11	-26.7%
English	48	41	45	35	-27.1%
Forensic Science	17	20	17	17	0.0%
History	23	28	26	27	17.4%
Mathematics	13	20	11	6	-53.8%
Medical Sociology	22	26	25	21	-4.5%
Physics	29	34	37	37	27.6%
Psychology	68	67	71	70	2.9%
Public Administration	70	78	60	101	44.3%
Sociology	0	0	2	3	NA
A&S TOTAL	493	529	499	541	9.7%
Education					
Arts Education	93	107	107	13	-86.0%
Counseling	70	70	83	89	27.1%
Early Childhood Education	53	48	48	64	20.8%
Education (Ed.S.)	44	56	49	22	-50.0%
Educational Leadership	94	109	145	150	59.6%
Elementary Education	110	100	116	88	-20.0%
English as a Second Language	-	-	-	102	NA
Health Education	30	31	26	31	3.3%
Health Education/Promotion**	26	23	21	19	-26.9%
High School Education	141	145	176	136	-3.5%
Physical Education	18	22	24	21	16.7%
Reading Education	-	-	-	3	NA
Special Education	113	109	99	101	-10.6%
EDU Total	792	820	894	839	5.9%

*Reported within the Schools of Arts and Humanities, Natural Sciences and Mathematics, and Social and Behavioral Sciences through fall 2009. Effective January 1, 2010, the Schools of Arts and Humanities, Education, Natural Sciences and Mathematics, and Social and Behavioral Sciences merged and realigned as the College of Arts and Sciences. While a part of the College of Arts and Sciences, the School of Education retained its school identity as a distinct unit.

**Joint program between School of Education and School of Public Health. Students with this major appear in either the School of Education or the School of Public Health.

- Indicates that the major had not begun or has been discontinued.