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A Study of Organizational Structures Impacting Noncredit Workforce Education and their Effects on Determining Workforce Development Strategies in Louisiana's Community and Technical Colleges

Dissertation

Submitted to the Graduate Faculty of the University of New Orleans in partial fulfillment of the requirements of the degree of Doctor of Philosophy in Educational Administration

By William S. Wainwright B.S., University of Louisiana Lafayette, 1995 M. Ed., Northwestern State University, 1998

December 2011

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ABSTRACT

The Lumina Foundation (2007) indicates that 54 million adults in the workforce are seeking noncredit education opportunities in a credit course/program delivery system designed to meet the needs of traditional college students. Working adults seeking continuing education coupled with dislocated workers as a result of changing economic situations represents this growing population. Community and technical colleges in Louisiana benefit from a for-credit formula funding model and do not benefit from a formula funding mechanism that supports noncredit education enrollments. As Louisiana's community and technical colleges face continuous budget challenges resulting from economic recession, college leaders are making critical decisions in restructuring college business models. These models are becoming increasingly important as they support increased revenues and sustainable ventures that will carry the college through difficult times.

The significance of this study and contributions associated with findings provide important insights into decision making, organizational change, and policy factors considered in determining workforce development strategies. Utilizing Multiple Criteria Decision Making by (Zeleny) 1981 in addition to Mintzberg's Five Basic Parts of an organization (1979) as a conceptual framework, causes and effects of decision making on organizational structures and workforce development strategies were examined and analyzed providing insight and recommendations for future consideration. Findings in this study suggest that as organizational structures are challenged due to simultaneous issues related to economic recovery and reduced budgets, noncredit education is impacting strategic decision making by college leaders evidenced by current college reorganization efforts, joint credit and noncredit curriculum development activities, and innovation associated with enhanced workforce development strategies.

Keywords: Noncredit Education, Workforce Training, Organization, Structure, College

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Chapter 1 Introduction

Noncredit education enrollments are rising and higher education institutions are taking notice (Boggs, 2004). Van Noy (2008) suggests that the primary response to noncredit enrollment growth over the last several years is attributed to workforce training and education. Surges in noncredit enrollments are resulting in the potential for increased revenues and heightened awareness of the role, scope, and mission of colleges and universities. Industry demand, diverse occupations, and an employment culture that lends itself to multiple job changes for individuals are only a few of the economic conditions fueling the increase in noncredit education enrollments (Boggs). These economic conditions coupled with increasing noncredit enrollments, have positioned Louisiana's community and technical colleges to play a pivotal role in expanding noncredit workforce training to address business and industry needs within organizational structures designed to support for credit education. In addition, colleges struggle to sustain noncredit education without formula funding policy and related data to document success at meeting the training needs of the workforce.

Current Louisiana state funding mechanisms do not support funding for noncredit workforce education. However, demand for noncredit workforce training continues to increase while organizational structures are challenged to respond to environmental changes related to economic recession. Organizational change in most cases is a result of a series of processes directly attributed to college environment rather than resulting from innovation or effective organizational planning and structure (March, 1981). In response to increasing demand for noncredit workforce education as evidenced by increases in noncredit safety training within Louisiana's community and technical colleges, sustainable financial mechanisms supportive of noncredit workforce education may be necessary to satisfy the mission of community and

technical colleges and prompt corresponding changes in organizational structures while supporting the economy of the State of Louisiana.

Noncredit workforce education course offerings vary from leisure learning to industrybased certifications necessary for continued employment or increased employability skills. Noncredit workforce education is defined as a course or series of courses that support industry demand such as industry-based certifications or entry-level training, and do not carry credit applicable to a two or four year degree (Van Noy, 2008). For the purposes of this study, noncredit workforce education is differentiated from contract training or customized training which includes either credit or noncredit training and is developed under a specific set of terms and conditions mutually agreed upon by the institution and employer.

Noncredit Enrollment Trends

According to the National Center for Educational Statistics (1998) noncredit enrollment increased 90% in 1995 and continued to increase to exceed credit enrollment by 8% in 1999. Due to varying tracking systems accounting for noncredit education, it is difficult to determine the scale of the most recent increases in noncredit enrollment (Van Noy, 2008). The growth of noncredit education enrollment to a level that surpasses credit courses suggests the importance of noncredit education in serving a specific training need. The Lumina Foundation (2007) indicates that there are 54 million working adults seeking continuing and/or noncredit education in a postsecondary system structure that is designed around the traditional college student. For example, admissions processes for traditional students require transcripts whereas for noncredit enrollment, prior academic performance may not be required for admission to the college. With continued increases in enrollment and demand for noncredit training courses, higher education institutions are required to exercise flexibility and practice innovation to manage growth while

responding to shifts in local and regional economies. This circumstance may lead to challenges within the college organizational structure related to existing policy and procedure centered on credit enrollment for the traditional college student. Processes designed for traditional credit college coursework such as admissions, teaching methodology, and tuition and fee structure are challenged when noncredit education students enroll within a system solely designed for credit enrolled students. For example, elements within an academic program application for credit may require additional information such as course transcripts as opposed to a short-term noncredit course where there is no qualifying admissions requirement.

The Role of Decision Making and Organizational Structure in Noncredit Education

Weick (1976) describes 'loose coupling' within the organization as follows: "Loose coupling is evident when elements affect each other suddenly (rather than constantly), negligibly (rather than significantly), indirectly (rather than directly), and eventually (rather than immediately)" (Weick, 1982, p. 380). For example, rapidly expanding economies leading to job loss or job creation places demands on existing policies and challenge processes within colleges related to noncredit workforce education. As colleges implement noncredit workforce training strategies within existing bureaucracies and departments to meet demands for training, organizational structures are impacted both directly and indirectly leading to unpredictable outcomes.

Multiple Criteria Decision Making, by Zeleny (1981), identifies a four stage process for decision making that begins with two approaches: one that is "outcome oriented" and one that is "process oriented." The outcome oriented approach identifies an end result at the front of the decision making process. For example, established college strategic planning outcomes that guide decision making and planning efforts represent the outcome oriented approach. Process

oriented approaches focus on how decisions are made in order to determine outcomes. For example, executing noncredit workforce training strategies based on an established cost recovery model represents a process oriented approach. This challenge requires the establishment of processes outside of traditional college policies necessary to secure adequate funding to support noncredit workforce training. These two approaches support a four stage process of decision making encompassing Predecision, Partial Decisions, Final Decision, and Postdecision.

Zeleny (1981) suggests that "conflict" guides predecision and fosters "decision motivating tension" guiding the decision maker to identify alternatives creating new ideas and solutions. In relation to noncredit education, workforce training strategies such as customized training efforts to meet the needs of business and industry requiring alterations to existing curriculum would serve as an example of "conflict" leading to discovery of alternatives to satisfy desired outcomes. For example, while existing curriculum may contribute to the building of noncredit courses, additional course development may be necessary to satisfy desired outcomes of business and industry. Evaluation of predecision outcomes lead to partial decision in which desired outcomes and established alternatives are assessed to determine effective solutions. The transparency associated with this process is key to managing conflict in the decision making process. For example, inclusion of academic and workforce development staff in the curriculum development process structured to meet an established customized training request will lessen conflict as the final decision emerges. Consensus building and acknowledgement of all factors associated with alternatives presented represents final decision. At this point, the decision maker has demonstrated an outcome that represents all alternatives for consideration. For example, new policy centered on standard operating procedures reflective of a culmination of alternatives and strategies of those involved in the process for customized training curriculum development

represents the final decision stage. Post-decision represents the process of evaluating outcomes of the final decision and determining additional factors that may enhance the final decision. Postdecision regret accounts for the process of determining how decisions could have been made differently.

All four stages present a complex series of actions that guide the decision maker in deducing viable strategies leading to a final decision. Implementation of the final decision provides an evaluation assessment that guides the decision maker in identifying modifications to ensure optimal success. In this study, Multiple Decision Making by Zeleny (1981) will be used as a foundation to analyze institutions with emphasis on decision making practices by college leaders and the implications for organizational structure impacting workforce development strategies. An evaluation and analysis of Multiple Decision Making Criteria will provide the mechanism to dissect and analyze noncredit education in Louisiana's Community and Technical Colleges.

With recent changes in the formula funding implementation for strictly credit coursework, higher education institutions in Louisiana will be required to respond with sudden shifts in organizational structure while managing budget reductions as a result of deteriorating economic conditions. These considerations lead to decision-making practices that influence all levels within the organization and foster changes in how colleges meet the workforce training needs of business and industry. Multiple Criteria Decision Making (Zeleny, 1981) will provide a framework for determining how each college leader participating in this study makes decisions and organizes the college as it relates to noncredit education and the resulting effect on workforce strategies within community and technical colleges. Critical decisions supporting noncredit workforce education becomes crucial in prompting organizational change, managing

enrollment trends, and in implementing workforce development strategies. Particularly within rapidly changing environments, structures within the college become a central focus in effectively executing noncredit workforce training activities.

Mintzberg (1979) defines structure as a division of labor within an organization with specified tasks that are coordinated among divisions. Mintzberg also suggests that coordination and standardization of practices are fueled by formal and informal communication. At the core of his research is the framework of the five basic parts of an organization. Mintzberg illustrates his model beginning with the strategic apex.

> The illustration shows a small strategic apex connected by a flaring middle line to a large, flat operating core. These three parts of the organization are shown in the uninterrupted sequence to indicate that they are typically connected through a single line of formal authority. The technostructure and the support staff are shown off to either side to indicate that they are separate from this main line of authority, and influence the operating core only indirectly (Mintzberg, 1979, p. 20).

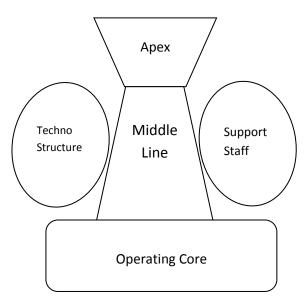


Figure 1. Five Basic Parts of an Organization (Mintzberg, 1979)

Mintzberg's (1979) organizational theory provides important groundwork from which to launch this study. The application of Mintzberg's five basic parts of an organization provides a framework for analysis of the administration of noncredit education programs and will provide critical insight into decision making as it relates to structuring an organization supportive of delivering noncredit education. Understanding the decision making practices of college leaders tied to organizational structures and the coordination efforts of workforce development divisions will enhance the ability of those institutions to respond to business and industry needs and to increase existing knowledge to formulate noncredit workforce education funding policy considerations and sustainability of workforce development strategies.

Funding Formula and the Louisiana Community and Technical College System "The mission of the Louisiana Community and Technical College System (LCTCS) is to prepare Louisiana's citizens for improved quality of life, workforce success, and continued learning" (LCTCS Website, 2008). By design, flexible courses are necessary for a diverse credit and noncredit delivery system supported by Louisiana's community and technical colleges. As Louisiana's community and technical colleges continue to evolve, the creation of traditional credit course offerings becomes difficult when coupled with the need to design flexible curriculum to meet the needs of business and industry. Current formula funding policy does not account for noncredit workforce education through a noncredit formula funding model. This occurrence can lead to challenges in organizational structures as they relate to the areas of curriculum development and processes associated with sustaining workforce strategies. This circumstance necessitates the consideration of alternative funding strategies in order to address increased noncredit workforce education enrollments. While higher education funding policy

supports industry funding of noncredit education, such revenues are often unpredictable and only cover the variable costs associated with training.

Formula funding policy is defined as funding based on an established set of criteria designated by the Louisiana Board of Regents; the coordinating body for Louisiana's higher education institutions (BOR Website, 2010). This definition is not exclusive to Louisiana. From a national perspective, the development of appropriation requests for college and university funding formula calculations often vary by state and are determined by enrollment trends, programming, and demands that support continued growth of the institution. As the name implies, formula budgeting funding is the application of one or more formulas in the budgeting process (Caruthers and Orwig, 1979). With the implementation of a formula funding model, advantages and disadvantages emerge. Advantages include a defined parameter for equity in distribution of funds and the process of prescribed decisions that remove politics from the process. Disadvantages include the lack of qualitative data incorporated into funding formula models. (Paulsen and Smart, 2001).

The Louisiana Community and Technical College System currently funds credit courses through a performance based formula. The formula recognizes credit enrollment growth in high demand occupations as defined by the Louisiana Workforce Commission and is based on a weighted model that accounts for enrollment in high demand occupations such as nursing. Though not fully implemented in 2009-2010, the formula was applied in a one-third; two-thirds ratio. One-third of the formula was based on the performance components and two-thirds of the formula was based on a pro-rata share of the State General Fund (SGF). The two-thirds funding included primarily Full Time Equivalents (FTE) generated by the college and the application of a pre-determined funding amount per FTE. Understanding the current implementation of the credit

formula funding model for Louisiana is important as it helps to frame the context of the problem for this study.

Statement of the Problem

Louisiana's Community and Technical Colleges are charged with the task of developing and implementing strategies that directly address the state's workforce needs. Exploring all mechanisms by which to provide trained workers is imperative for the state to attract new industry. Both credit and noncredit training policies impact opportunities for meeting business and industry needs. Louisiana currently does not have a noncredit formula funding policy. Policy revisions which allow for support of noncredit education would enable Louisiana's community and technical colleges to carefully align organizational structures with funding mechanisms leading the college to establish a clear vision of its credit and noncredit workforce education divisions. As it exists today, noncredit workforce education delivery mechanisms place higher education institutions in a position of extreme instability with regard to consistent funding structures that directly support the needs of business and industry. The purpose of this study is to investigate organizational structures used by college leaders to make decisions affecting noncredit education and how these decisions impact workforce development strategies in Louisiana's Community and Technical Colleges.

Louisiana's higher education system provides a formula funding mechanism based on performance and related student full-time equivalent (FTE) that does not take into account noncredit activities. The formula funding structure only accounts for students enrolled in credit coursework. As prescribed by the LCTCS mission statement, college leaders are required to address business and industry needs and often do so through noncredit offerings. Additionally, leaders make noncredit workforce education decisions based on a funding mechanism that

honors credit enrollment only. This funding mechanism drives the development of organizational structures and institutional responses that may or may not align with the college mission. For example, noncredit courses must generate sufficient revenue to address all expenses related to the course. Typically, this method of funding causes noncredit courses to be more expensive and may prohibit enrollment by some who can ill afford higher tuition. Additionally, since the college is not funded for noncredit courses some courses do not occur because insufficient revenue is generated from tuition and the campus cannot provide training at a deficit. The development of a sustainable funding structure that supports noncredit education may be critical to serving the mission of the college and meeting the workforce training demands of the state.

Students enrolled in noncredit courses are primarily served through workforce development divisions within colleges. These divisions, often referred to as enterprises, are sustained through restricted funds that are generated from revenues over expenses. According to Van Noy et.al., (2008) funding of noncredit workforce education nationally is accomplished through models that are based on a formula centered on contact hours, consolidated funds, and utilization of funding strategies that support college discretion. These funding strategies are based on the concept of excess revenue over expense. Only noncredit courses that generate sufficient revenue to cover expenses are considered for delivery. This differs from the traditional formula funding policy. The traditional policy will support credit courses even without excess revenue over expense in the short term with the promise of future revenue generated from FTE's.

Because Louisiana does not currently have a formula funding structure for noncredit workforce education, colleges facilitate partnerships with business and industry when possible and align credit courses with industry training needs to ensure a sustainable investment in the college. Though these business and industry partnerships are an important component for

community and technical colleges to address workforce training needs, the issue is that partnerships are often not formalized, fluctuate with economic conditions, are cumbersome, and require long lead time from course development to implementation. To effectively meet the needs of business and industry, training demand should be addressed quickly and efficiently.

Current organizational structures supporting the noncredit workforce education delivery system in Louisiana's Community and Technical Colleges vary in levels of development. Funding priorities by college leaders have sustained some noncredit education efforts. This variance in approach to delivering noncredit education implies a reduced status in the minds of policy makers as unimportant relative to for-credit education. Efforts by Louisiana's Governor to draw attention to the need for a better prepared Louisiana workforce have led to policy adjustments that impact credit courses but the adjustments have not been adequate to include issues related to noncredit education courses.

Significance of the Study

Economic uncertainty has placed higher education institutions in positions of extreme instability as enrollments rise due to unemployment and budgets decline.

Over the past four to five years, state and national economies have trembled from the shock and aftershock of major businesses and industries cutting back, closing down, and moving operations offshore. Hoards of dislocated workers exist while struggling employers are frustrated by shortages of skilled workers needed to sustain and grow businesses. At the same time, higher education institutions have seen their budgets slashed and have been forced to downsize faculty and staff despite the significant increase in demand for services (Merrell, 2007, p.521).

These shortfalls also negatively impact credit course offerings as their funding is derived directly from the state. The uncertainty of traditional funding further complicates the financial environment thus making the ability to meet the demand for noncredit courses even more tenuous. The willingness of the institution to attempt an unsupported venture is further diminished during difficult economic times. This uncertainty leaves community and technical college organizational structures challenged to sustain critical workforce training efforts that meet the needs of local and regional economies trying to recover from economic crisis.

As organizational structures are challenged due to simultaneous issues related to economic recovery and reduced budgets, strategic decision making by college leaders will become critical for survival. Noncredit workforce education funding decisions will result in institutional responses that may have an unintentional impact on organizational structure. Institutional response may include: offering courses that are inexpensive and do not generate revenue such as income tax filing or private investigation training, deferring courses that are requested by industry because a certain number of students would need to enroll to break even, or outsourcing training to private entities to ensure the needs of local business and industry partners are met without incurring liability.

An additional challenge to funding noncredit education is that colleges continue to struggle with communicating the potential positive results of noncredit workforce education on local economies.

It is very difficult to measure the economic impact of community colleges without a way to measure the amount and types of noncredit activities. Community colleges need data on noncredit courses to be able to 'tell their story' and

demonstrate how they successfully meet the needs of business and industry and serve their communities (Phillippe, 2003, p. 7).

The current data systems utilized by community and technical colleges in Louisiana account for noncredit education differently than credit courses and in some cases do not account for noncredit activity at all. Future considerations for noncredit workforce education include efforts to improve common reporting by colleges that will provide consistent outcomes thus illustrating the positive impacts of noncredit education for colleges and communities.

Community and technical colleges struggle to articulate the positive impact of noncredit workforce education as a result of varying success metrics used in reporting data. Accounting for noncredit workforce education is integral to a funding mechanism based on performance. Performance based funding is the cornerstone of credit courses and likely should be considered a criterion for funding noncredit courses. The lack of data is not uncommon to community and technical colleges in Louisiana. The problem is related to college data systems designed to capture data on credit activity only. A college data system that captures both credit and noncredit enrollment activities would serve as a mechanism to measure enrollment trends and guide colleges in decision making related to mission. Noncredit workforce education divisions are working within existing credit data systems that do not offer the flexibility of capturing unique data sets that provide clear reportable outcomes.

Voorhees and Milam (2005) point out that the design of credit data systems are not accommodating to the flexibility required by noncredit programs. For example, most credit data systems report by "class" rather than "individual unit systems" needed to accurately report noncredit workforce education outcomes. In addition, Van Noy et.al., (2008) reports that colleges are challenged by students not willing to provide social security numbers, reporting of

undocumented immigrants, home grown data systems that are paper driven and inefficient, and the nature of noncredit workforce education programs where program entry is fluid. Though these issues make a funding formula for noncredit courses more challenging, it does not diminish the need or importance of noncredit courses at addressing business and industry needs, nor does it diminish the necessity to address the issue at all levels to seek a solution. Accounting for the impact of noncredit workforce education will play a critical role in decision making by college leaders impacting organizational structures as they determine the effectiveness and sustainability of workforce development divisions.

Budget shortfalls and increased workforce training demand influence noncredit workforce development strategies impacting organizational structures in higher education institutions. "As noncredit workforce education evolves, it is creating organizational changes within the community college that reflect its importance and its likely influence on the content of credit programs" (Van Noy, et.al., 2008, p. 18). Noncredit course content dictated by business and industry needs determines the organizational structure for administration of noncredit education and provides the impetus for researching organizational structures impacting noncredit education and the effects on determining workforce development strategies in Louisiana's community and technical colleges.

Research Questions

Research questions that will guide this study focus on organizational structures associated with noncredit education funding and the impact on determining workforce development strategies in Louisiana's community and technical colleges. The primary question in the study is How do college leaders make decisions on college organizational structures to address noncredit workforce education? Additional questions include the following: 1) how does existing state

policy on formula funding impact noncredit workforce education strategies within colleges? 2) how are noncredit workforce education divisions organized within colleges? 3) how do college leaders reconcile workforce training demand with existing organizational structures and current funding policy for higher education institutions?

It will be important to document community and technical colleges as units of analysis and utilize qualitative data displays to study how colleges determine credit and noncredit offerings within institutions. An analysis of course offerings as a direct result of funding potential will provide insight into the decision making process. In addition, the use of decision making theory will aid in the translation of actions of college leaders in response to a growing dilemma of how to fund noncredit education in light of the increasing demand and decreasing budgets. A formal literature review will begin with a thorough overview of past and present studies on noncredit workforce training. Theory on organizational structure and decision making practices will be linked by literature to illustrate the implications of these structures and practices on decisions affecting noncredit education programs. A comparative analysis will illustrate how the Texas and Georgia higher education systems are structured under existing formula funding policy for noncredit workforce education in comparison to Louisiana. The review of literature will conclude with implications for theory and practice with discussion to identify future considerations for a formal policy and structure for noncredit workforce education for the State of Louisiana.

Delimitations and Limitations of the Study

A case study will serve as the primary method for conducting fieldwork to explore the impact of noncredit education on funding, organizational structure, and decision making by college leaders. According to Stake (1995) a case study is particularly useful in determining

'complexities' of an activity or activities of a 'single' event. Initially, this case study focused on carefully constructed interviews of college leaders and workforce development directors to establish an exploratory research foundation centered on decision making practices by college leaders and an understanding of existing organizational structures. In an effort to identify delimitations, it was important to determine relevant aspects of the limitations from the onset of the study.

The availability of quantitative data illustrating the historical impact of noncredit education is minimal. As a result, college leaders may be reluctant to discuss specific planning and funding strategies tied to success or failure of the workforce training enterprise with the researcher. In addition, workforce development directors may attempt to communicate anecdotal data to compensate for lack of numerical data. The success or failure of the workforce development divisions in providing business and industry training is critical now more than ever during difficult budgetary circumstances resulting from economic recession. Research will center on decision making by college leaders, organizational structures, and policies associated with noncredit education funding and the impact on determining workforce development strategies in Louisiana's community and technical colleges.

According to Creswell (2002) it is often difficult to identify limitations within a qualitative study before the study has been conducted. While difficult, Creswell suggests that it is important for researchers to anticipate challenges in the study in an effort to aid in the collection and analysis of data. Weaknesses anticipated in this study include the rapidly changing financial landscape for all higher education institutions paralleling instantaneous changes in organizational structures to accommodate budget realities. In addition, broad generalizations may be limited due to uniqueness of information gathered within the study by institution. It will be difficult to

capture the changes in organizational structures and decision making by college leaders as it relates to noncredit workforce education while at the same time similar decisions are being made for all operations and divisions with the college. Carefully constructed interview questions will be essential in navigating strategies to limit weaknesses of the study.

Summary

Noncredit workforce education is defined as a course or series of courses which do not carry credit applicable to a two or four year degree and that support industry demand such as industry-based certifications or entry-level training (Van Noy, 2008). While recent studies such as The Landscape of Noncredit Education by Van Noy (2008) and Mapping the Misunderstood Population of Adult Students by Ashburn (2007) focus on implications of increased noncredit enrollment growth, there is little research on the overall impact on higher education institutions. Additional considerations include the lack of research on policy that supports or hinders noncredit enrollment trends coupled with inadequate formula funding models that lead to competition among divisions of credit and noncredit education. A research study that focuses on how these issues impact Louisiana's community and technical colleges can result in recommendations that influence policy development, positive organizational change, and improved strategies to address workforce development needs. Current budgetary shortfalls increase the significance in the role of noncredit workforce education as a potential source of additional revenue now more than ever.

The purpose of this study is to assess decision making by college leaders impacting organizational structures and policies associated with noncredit education funding and the impact on determining workforce development strategies in Louisiana's community and technical colleges. By doing so, this study provides a research base for policy considerations that may

have a profound influence on the long-term effectiveness of the Louisiana Community and Technical College System in meeting the workforce training needs for the State of Louisiana.

Chapter 2 Literature Review

Introduction

Noncredit education is rapidly expanding in community and technical colleges throughout the country. "More people than ever are taking classes for love or money, but not for credit" (Burnett, 2001, p. 3). Burnett (2003) discusses the fact that the Lumina Foundation has invested resources in understanding what is termed the "hidden college." The premise behind the "hidden college" is that noncredit students are unaccounted for in colleges across America and are considered a "misunderstood" population because of limited tracking systems. College leaders and policy makers are not sure how to deal with them and do not recognize the goals of noncredit students. Guiding the formal literature review will be the discussion of major studies provided by the Education Commission of the States, Community College Policy Center, Lumina Foundation, Community College Research Center, American Association of Community Colleges and the Ford Foundation. These studies represent the latest research and practice related to the development of noncredit workforce education in the United States. The literature will provide an assessment of the context and background information on noncredit education including: a formal review of literature, a focus on literature to date, an overview of organizational structure and funding configurations, and decision making theory and research. Existing literature on noncredit workforce education coupled with relevant theories on organizational structure and decision making will help to build the foundation upon which institutional response and decision making by college leaders is based.

Four key bodies of research will focus on the impact of noncredit workforce training education on workforce development strategies and decision making: First, the evolution of noncredit education; Second, an analysis of decision making theory; Third, integration of

organizational structure and decision making; and finally, an analysis and synthesis of noncredit workforce education data in Georgia and Texas and a comparison of systems in an effort to determine the implications of various methods of noncredit education funding. To better understand role and scope of noncredit education and the impact on determining workforce development strategies in Louisiana's community and technical colleges it is important to examine higher education systems, funding for credit and noncredit programs, decision making by college leaders and organizational structures that provide noncredit workforce education. Texas and Georgia's higher education systems, while different in strategic planning and structure, currently provide noncredit education incentives that guide decisions of college leaders, whereas the Louisiana system provides little support.

Noncredit Education

The Evolution of Noncredit Education

Community Colleges and the Equity Agenda: The Potential of Noncredit Education by Grubb, Badway, and Bell (2002) provides a theoretical approach to the role of noncredit workforce education and the challenges community colleges face in serving a poorly identified and under-served student population of non-traditional learners. The authors described the role of the nontraditional learner and the impact of noncredit workforce education on colleges that serve nontraditional learners. Impacts included increased flexibility, employer engagement, serving a forgotten student population, and decreased bureaucracy. The authors conducted telephone interviews with directors of noncredit workforce education divisions in 13 community colleges. They identified challenges for community colleges offering noncredit workforce education. These include lack of funding, lack of recognition due to inadequate data reporting systems, and unclear definitions of outcomes. These findings represent the continual challenges of community and technical colleges to serve both credit and noncredit students in a traditional higher education organizational structure based on the needs of four-year colleges and universities.

Grubb, Badway, and Bell (2002) identify what is termed "stratification" within higher education leading to an "inequity" agenda. The stratification is manifested in a hierarchy of higher education institutions followed by universities with less stringent admissions requirements followed by community colleges and then workforce training institutions (Grubb, Badway, and Bell). Noncredit workforce education positioned within the higher education arena represents a unique form of stratification. The authors also discuss what they term the "dark side" of noncredit workforce education which is the inadequate funding incentives for those community colleges that serve noncredit students. As newly developed workforce training legislation is implemented within Louisiana's higher education system, elements of stratification which currently exist may be brought to the forefront. For example, the current formula funding rate for developmental education provided by universities is funded at a higher rate than that of community colleges. It will be critical that Louisiana's community and technical colleges understand the elements of the "inequity agenda" and work closely with universities to build career pathways that transcript previous credit earned and document certification of skills within colleges and universities.

Colleges are beginning to recognize the potential for increased enrollment of noncredit education students into credit programs. Van Noy, et al. (2008) provides evidence of this emerging trend. Colleges are beginning to recognize "migration" between credit and noncredit workforce education programs and see a role for noncredit workforce education in recruiting students for traditional credit programs (Van Noy et.al). Student recruitment and the potential for increased revenue in noncredit workforce education divisions necessitates further study on the

influence of noncredit workforce education on higher education institutions. Community and technical colleges in Louisiana are currently structured with noncredit divisions that primarily focus on meeting the needs of business and industry. Articulation of noncredit to credit course work is not currently a prevalent practice among community and technical colleges in Louisiana.

Louisiana's community and technical colleges have traditionally viewed noncredit workforce education separately from credit courses and provided limited oversight and accountability of such efforts. As a result of increasing enrollments in noncredit workforce education, accrediting bodies are beginning to recognize the value to the institution. Cantor (2000) articulates the value of noncredit education by noting that the Southern Association of Colleges and Schools (SACS) has recognized noncredit education as a path for lifelong learners documented through continuing education credits. This acknowledgement illustrates the importance of the growing role of noncredit education and the potential need for formula funding policy that supports workforce training strategies for Louisiana's community and technical colleges.

The impact of noncredit workforce training education on higher education institutions has benefited from various forms of study. Noncredit enrollment trends provide an understanding of noncredit students and noncredit workforce training divisions.

> Noncredit enrollment trends provided in a 2004 National Study of Continuing Education include: 54% are enrolled in for credit and 46% in non-credit courses, noncredit students are more likely than other students to be first generation college students, more than half were employed full-time, they selected their programs based primarily on affordability, convenience, and reputation, fewer than 15% took online courses, 60% of colleges and universities have continuing

education divisions, 65% of continuing education divisions made a profit, about a third of continuing education faculty members had Ph. D's, while slightly less than 10% had not earned a bachelor's degree, and few institutions offered child care to students. (Ashburn, 2007, p. 35)

The results of Ashburn's study illustrate a diverse noncredit student population; a situation that demands change in organizational structure and policy within higher education institutions to meet diverse needs. Change is not only a result of an expanding student population, but also one of a complex network of stakeholders made up of business and industry including local chambers of commerce and economic development authorities that depend on the success of the college in workforce training.

Value of Noncredit Education

It is important to understand the consequences of changing higher education systems in ways that would recognize the value of noncredit workforce training education. Cantor (2000) articulates the value of noncredit education by noting that the Southern Association of Colleges and Schools (SACS) has recognized noncredit education as a path for lifelong learners documented through continuing education credits. Increasing enrollments in noncredit workforce education in community and technical colleges is facilitated by the establishment of workforce training divisions with designated leadership and coordinated activities. Colleges expanding noncredit workforce training education courses are often closely aligned with local economies and support programs that are flexible, immediate, and specific. According to the Lumina Foundation (2007) colleges recognize that noncredit workforce education training programs link to the potential for expanded credit program opportunities in addition to the potential for increased revenue. "Recently, several case study colleges have changed the organization of

noncredit education to consolidate programs, elevate noncredit education administratively within the college, and promote workforce development as a major college mission. Most are working to engage faculty and increase their appreciation of noncredit workforce education" (Van Noy et. al., 2008, p. 2).

Ashburn (2007) claims that noncredit education students are hard to identify and track and often referred to as a "misunderstood population" within a "hidden college." While colleges and universities continue to strive to account for noncredit students, there are no universal institutional characteristics to identify this growing population. Jenkins and Boswell (2007) further suggest that community colleges struggle to document the impact of noncredit workforce education training on local and regional economies nor are they able to communicate impact to policy makers or the public at large.

A case study of Elgin Community College located outside of Chicago, Illinois, provides further insight into the impact of a growing noncredit student population (Burnett, 2001). The college had a noncredit enrollment that exceeded the credit enrollment. A careful study of the population served by the college resulted in a demand for expanded noncredit course offerings. For example, the results of the survey indicated a rapidly expanding senior citizen population in addition to an increased demand for industry based certifications as a primary cause for enrollment growth in noncredit education. A benefit of the enrollment increase has resulted in additional revenue that supports the college as a whole regardless of course classification as credit or noncredit (Burnett). This understanding is important because the noncredit courses are not a stable source of income and do not represent a means by which the college can meet operational expenditures. These funds are typically available erratically and are not considered a

consistent source of funding. Not only is it important to study trends, but it is essential to understand the drivers of growth experienced by colleges.

George Boggs (2004) in *Community Colleges in a Perfect Storm* has found additional factors for increases in noncredit enrollments throughout the nation's higher education institutions. Factors include unpredictable employment sectors, rapidly changing economies, and the need for individuals to certify skills necessary to meet the demands of today's workforce. Boggs detailed efforts of colleges and universities to become flexible in the delivery of diverse course offerings relevant to the customers they serve. He provided an indication of the impact of noncredit education on consumers and other stakeholders. Boggs also described the impact of noncredit enrollment trends on funding for colleges and universities that often goes unnoticed by policy makers. Impacts include working within policy and procedures designed for a different course credit delivery system that does not yield sufficient revenue to support noncredit activities. Because noncredit workforce education is demand driven, policy makers may not be aware of efforts by institutions to sustain crucial enterprises that meet local and regional employment demands. This becomes critical in preparing for emerging industries not yet realized by economies.

Noncredit Education as a Local Economic Factor

Many colleges fail to provide all of the necessary workforce education training and support to local and regional economies even when business and industry want to assist financially. This issue was explored in the Johnson County Community College Survey (1999) when their Board of Trustees conducted a telephone survey of 501 Johnson County companies in which their noncredit workforce education division had not provided training within the last three years. Findings of the survey revealed that most companies were willing to pay partial or

full costs of training for noncredit education. Most had resorted to training existing employees using internal trainers.

Three quarters of all responding companies indicated they provided formal training to their employees in the past year; the training was provided by a wide variety of companies, organizations, and institutions. Almost 40 percent of these companies conducted their own training; about 25 percent of these companies cited their vendors or suppliers as the source of training for their employees (Johnson County Community College Survey, 1999, p. 1).

Most employers surveyed were not opposed to receiving noncredit workforce education by the college, but rather were unaware of services provided. This finding is consistent with most Louisiana community and technical colleges offering noncredit workforce education, as many do not have adequate resources to market noncredit training offerings.

Accounting for Noncredit Education

Noncredit workforce education is delivered within higher education institutions in a manner that affects many internal structures. As a result of increased enrollment trends in noncredit education, organizational structures are challenged and changing (Boggs, 2004). Integrated structures such as partial noncredit formula funding models have been developed in some states and are supported by state policy that guides formula funding design. Van Noy et al., (2008) defined funding formulas as those that consist of funding by contact hour, coupled with college discretion or fixed funding amounts.

In addition, historic efforts to accurately document the success of noncredit education students have failed.

Most community colleges and technical schools reported tracking some education and employment outcomes for their students, but differences in state reporting requirements preclude aggregating these performance data to report on the proportion of students nationwide that graduate, transfer to 4-year institutions, pass licensing examinations, or gain employment (Ayers & Miller, 2004, p. 6).

While most states require reporting of noncredit education students, standards vary and many are limited. "Many states have reporting requirements for noncredit workforce education in conjunction with funding and several are seeking to collect more comprehensive data" (Van Noy et al., p. 46). States continue to explore reporting structures that accurately account for the enrollment, placement, and completion of noncredit workforce training education students.

Increased enrollments in noncredit workforce education in higher education institutions provide many challenges related to funding structures influenced by policy, consumer demand, faculty teaching within existing credit programs, and student data reporting systems that are not designed to support workforce education and training opportunities outside of the credit program offering. According to Jenkins and Boswell (2002) existing formula funding models for two-year higher education institutions primarily serve credit bearing course offerings. Those states that fund noncredit workforce education do so through supporting mechanisms such as a business model or enterprise model for revenue generation or provide a portion of self-generated revenue of the college. Other states fund noncredit workforce education by contact hour. These approaches leave college administrators searching for various funding support structures that serve demands of noncredit students and local economies while falling in-line with higher education policy.

Funding structures require accurate reporting of outcomes. Outcomes for noncredit learners can be defined in many ways that include course completion, job placement, transfer into a credit program, and securing industry-based certification (Jenkins and Boswell, 2002). Louisiana currently does not have a higher education formula funding structure for noncredit workforce education. Internal decisions are made by individual institutions to fund noncredit workforce education activities and are reflected in organizational structures. Louisiana's community and technical colleges utilize innovative partnerships with business and industry, seek grant opportunities, and design customized training cost recovery programs to off-set the costs of noncredit workforce education.

Role of Faculty in Noncredit Education

Faculty qualification and flexibility play a critical role in noncredit workforce education and training. While one benefit of noncredit training programs at higher education institutions is the opportunity for students to transition to college or transfer directly into a related program, funding and teaching qualifications often create an unintended void between credit and noncredit divisions. Credit faculty often teach noncredit coursework outside of the traditional teaching load and work overtime if they are required or have an interest in teaching noncredit learners. In addition, qualifications for teaching noncredit courses are not necessarily the same as those of faculty teaching in for-credit programs. Experience and certification may be required for teaching a noncredit industry-based certification program. For example, some noncredit training programs in technical colleges in Louisiana leading to industry-based certification require faculty credentialing determined by outside licensing agencies such as the Bureau of Emergency Medical Services for faculty teaching Emergency Medical Technician – Basic programs. This

licensing requirement is necessary for the EMT – Basic training program but is not recognized in credit learning courses as academic in nature. Thus, transferability to credit courses is unlikely.

The nature of noncredit education course delivery is centered on providing flexible course offerings that require specific levels of expertise in faculty who do not require advanced levels of higher education. For example, a noncredit course offering in tax accounting may require the credentials of a certified public accountant rather than an individual with a Master's degree alone. In addition, many noncredit course offerings do not fall under traditional credit faculty hiring practices nor are they recognized by college and university accrediting agencies. It is not uncommon for credit and noncredit faculty to battle for resources and value one division over the other. Nunley (2007) suggests that credit and noncredit programs are commonly divided within institutions. Frequently, both credit and noncredit faculty mingle, but seldom do they work together on a mutually beneficial planning strategy on behalf of the college. While credit faculty question the quality of noncredit workforce training programs, noncredit education administrators question the responsiveness of for-credit programs and faculty when it comes to meeting the immediate needs of stakeholders.

Faculty participation in noncredit workforce education was explored in a recent study by Michelle Van Noy. Van Noy (2008) noted that while faculty express an interest in noncredit teaching, colleges indicate concerns regarding increased teaching load and suggest blending of both credit types for common course offerings to increase faculty engagement. For example, Anne Arundel Community College (Maryland) job descriptions are flexible and support common credentialing for faculty upon hiring for both credit and noncredit instruction for credit and noncredit course offerings that are related. While college leaders may find this supportive of growing noncredit education opportunities at the college, noncredit division leaders question

whether such an approach is too restrictive. "Other noncredit leaders commented that not all faculty have the skills or abilities to teach noncredit courses and that they screen faculty carefully to make sure that they can teach the material" (Van Noy, et.al., 2008, p. 23).

Purpose of Noncredit Education

Several states are beginning to recognize the role and impact of noncredit workforce education on higher education systems. While formula funding varies from state to state, 32 states are beginning to provide funding mechanisms to support noncredit education (Jenkins & Boswell, 2002). Some states use a percentage of self-generated funds to support noncredit education and others provide policy that supports colleges to build revenue generating tuition practices that support adequate training and program sustainability. For those states that provide line item funding for noncredit education, special attention goes to those courses directly tied to career pathways and support credit and noncredit workforce education programs (Jenkins & Boswell). The Lumina Foundation (2007) reported that states are fostering better coordinated efforts between credit and noncredit divisions. This results in better overall assessment of students, identification of career goals, tracking of student transfer, and identification of additional training needs.

The adaptation of student information systems that recognize noncredit workforce education supports consumers and higher education institutions by accounting for coordinated tracking of students. This effort includes a wide range of relevant data varying from student transfer to employment history. A case study of Louisiana's community and technical colleges will result in a formal accounting of how noncredit workforce education students are documented in addition to how these efforts affect workforce strategies and funding decisions by

administrators. This information will be critical in studying organizational structure, decision making, and developing future considerations for policy analysis related to noncredit education. *A Description of Adult Learners as Noncredit Students*

During the late 1960's and early 1970's community colleges were the primary service provider for adult learners (Nunley, 2007). Ashburn (2007) describes adult learners as those older students who must balance work and family and participate in a higher education system that is designed around serving a younger traditional student population. Additionally, he discusses the concept that adult students are at a higher risk of failing due to enrollment in "nontraditional pathways" that are not well documented by higher education institutions. Many of these adult learners were beneficiaries of noncredit workforce education training opportunities. As a result of increased demand, community colleges then worked hard to strengthen and tailor student support services, develop noncredit student information systems, and keep tuition low to ensure the needs of adult learners, also known as non-traditional learners and consumers, were met. Nunley (2007) discusses the impact of community colleges in their early attempts to serve adult learners. She describes community colleges as the "innovators" and those best positioned to serve the immediate needs of the community. Nunley also suggests that while community colleges continue efforts to provide diverse services to adult learners, they must also address the fact that credit enrollments by adult learners are dropping at a rapid rate.

In addition, with regard to the impact of noncredit workforce education on adult learners, it is important to identify the role of noncredit workforce training education and its impact on first generation college students. Historically, first generation college students were not well studied and many entered college by testing the college environment through the noncredit workforce education path. The 2005 *Faces of the Future* study by ACT describes first generation

college students as those that "...are more likely to be women, older than traditional college age, employed full time, and to support dependents living at home" (Nomi, 2005, p. 1). Many pursue the completion of an associate's degree as a primary career goal. In addition, first generation college students make up a large portion of the community college student population. According to the National Center for Education Statistics (2005), first-generation 2003 college students made up 45 percent of the public community college population.

Nunley (2007) suggests three reasons why credit enrollments among adult learners are decreasing among higher education institutions in our nation. They center on organizational change and the fact that community college credit programs are supported by inflexible practices and procedures. Nunley also notes the chasm between credit and noncredit divisions and the tendency that credit programs are supply driven while most noncredit programs are demand driven based on the needs of business and industry. These findings support the need for states such as Louisiana to study organizational structure and funding formula policy that supports noncredit workforce training education.

A primary need for enrollment in community colleges for nontraditional students is to increase job skills. Central to the mission of the Louisiana Community and Technical College System, today's rapidly changing workforce necessitates increased job skills training as an opportunity for licensure, continuing education units, and industry-based certifications which are most commonly provided by noncredit workforce education training programs. As colleges support increasing demand for noncredit workforce training programs in Louisiana, organizational structures will become critical in the successful implementation and execution of workforce training strategies.

Organizational Structure

Mintzberg (1979) defines structure as a division of labor within an organization with specified tasks that are coordinated among divisions. Mintzberg also suggests that coordination and standardization of practices are fueled by informal and formal communication. Current strategic planning processes support formula funding for budgetary planning for credit coursework only and workforce development divisions that provide noncredit instruction are expected to function as self-sustaining enterprises. Minimal provisions are in place to address rapidly deteriorating economies and the development of organizational structures to support workforce strategies for noncredit training.

According to Van Noy et.al. (2008) two types of organizational structures exist which support noncredit workforce education in community colleges, those that are separate and those that are integrated. 'Separate' structures represent unique divisions within the college where credit course offerings are separate from the noncredit division while 'integrated' organizational structures exist when noncredit workforce education efforts are blended with academic credit divisions. For example, a workforce development division sustaining a self-generated budget by facilitating noncredit course development and delivery for business and industry would represent a separate structure. An integrated structure would be represented by a workforce division or function of the college blended with the academic division generating both credit and noncredit course delivery to serve currently enrolled students and meet the needs of business and industry. Both structures exist within the Louisiana Community and Technical College System. How organizations respond to noncredit workforce education structures varies depending on levels of collaboration between administration, faculty, and staff which facilitates the development and implementation of organizational practices. For example, colleges that identify workforce

development divisions as integrated structures within the college will evidence collaboration through the inclusion of workforce development divisions incorporating strategic planning activities as opposed to those colleges that see workforce development divisions as separate. In this case, colleges would only engage with the workforce development division when revenue generating opportunities or important business and industry partnerships emerge and necessitate the support of the college leader.

Weick (1990) further supports organizational response in his research on "loose coupling." "Loose coupling suggests that any location in an organization (top, middle, and bottom) contains interdependent elements that vary in the number and strength of their interdependencies" (Weick, 1990, p. 204). This is particularly important when analyzing impacts to structures at all levels within the organization in rapidly changing environments. One example of this impact is the recent adoption of the Day One Guarantee promoted by Louisiana's Governor. The premise of the Day One Guarantee is that any community and technical college graduate who successfully gains employment is guaranteed to have the skills set necessary to satisfy job responsibilities. If not, the college will retrain the graduate at no cost to the employee or employer. The Day One Guarantee was established to demonstrate a rapid response strategy to remedy the workforce shortage in the State of Louisiana symbolizing an activity often associated with loose coupling where institutions quickly mobilize through various units to illustrate effectiveness. "If management is making decisions, if plans are being made, if new units are created in response to new problems, if sophisticated evaluation and control systems are in place, then an organization must be well managed and worthy of support" (Bolman and Deal, 1984, p. 168). The establishment of the Day One Guarantee has demonstrated the effectiveness and

relevance of Louisiana's community and technical colleges in responding to the needs of business and industry.

According to Birnbaum (1988) there are advantages to loose coupling during sensitive or unstable environments. Organizations with multiple units and low need for coordination (e.g. universities, loose coupling) are able to maximize innovative strategies for problem solving due to less involved management, unlike organizations with fewer management units (e.g. small businesses, tight coupling) requiring a greater management presence to address problems which arise. Understanding implications of loose coupling in organizations is a key factor in interpreting and analyzing data in this case study.

Loose coupling is important when analyzing the current structure of community and technical colleges in Louisiana and the factors that impact decision making processes by college leaders. Colleges do not have involuntary response mechanisms that react to events such as responding quickly to the training needs of new industry locating to a region supported by the college. Therefore, decision making processes do not account for planned response nor do they involve departments or divisions within the college that play a role in providing solutions that impact workforce development strategies. For example, evidence of this challenge is apparent in the development of the Louisiana Fast Start fund that was created in 2009 by the Louisiana Legislature. The purpose of the fund is to establish an avenue for colleges to seek immediate funding to aid in the development of curriculum and delivery of workforce training to meet the needs of existing industry and industry seeking to locate to Louisiana. Existing funding mechanisms under the current formula funding structure do not enable colleges to react to unplanned events or time sensitive demands from business and industry in the development and execution of workforce training strategies. While this solution is beneficial in growing and

sustaining a workforce to support local and regional economies, the reality is that this is a temporary solution. Noncredit workforce education policies supportive of sustainable funding mechanisms and inclusive of academic and workforce development departments may be a method to deliver immediate workforce training solutions as events occur.

How departments within community and technical colleges respond to noncredit workforce education whether dependent or independent to the organization as a whole determines institutional response that either supports or hinders workforce strategies. In Louisiana, interdependencies within community and technical colleges vary due to a formula funding policy supporting only credit enrollment. Noncredit enrollments are distinguished as separate by college educational departments and administrative divisions. Loose coupling in this example is evidenced by those colleges that respond to increased noncredit workforce education activity within existing organizational structures. Those colleges with large structures demonstrate multiple interdependencies that provide for greater flexibility in responding to noncredit enrollment demand as numerous levels of management provide decision making autonomy supportive of innovation. For those colleges with a central structure, decision making is less autonomous by departments leading to reduced innovative approaches in responding to enrollment demand and limited participants influencing the decision making process. Understanding loose coupling is critical to the study as results of qualitative research design will be disseminated through a conceptual framework which links decision making processes to Mintzberg's (1979) organizational forms and guides the research to determine levels of effectiveness in decision making by college leaders, analysis of organizational structures and impacts to workforce development strategies supportive of noncredit workforce education.

Mintzberg (1979) describes five fundamental parts of an organization which includes the Strategic Apex, Middle Line, Operating Core, Technostructure and Support Staff. The Strategic Apex represents executive leadership within the college responsible for performance management goals and objectives. For example, college chancellors and vice chancellors responsible for achieving outcomes associated with the overall strategic plan of the college represent the strategic apex. The Middle Line represents middle management typically associated with college deans or department heads who guide and direct projects that are completed by the Operating Core. A Dean of Health Sciences who manages performance outcomes of nursing faculty is an example of the Middle Line interacting with the Operating Core. The Operating Core represents those nursing faculty who are responsible for successful outcomes such as licensure pass rates for nursing students who have graduated from the college. In this particular example, the student services personnel of the college represent the Technostructure of the organization accountable for evaluation of processes associated with student qualification for graduation and licensure. The Support Staff provides administrative support and assistance throughout all levels of organization. Mintzberg (1979) accounts for coordinating mechanisms that incorporate size of the organization, environment, positions of power, execution strategies and maturity of the organization. All elements work in sync to determine which type of organizational structure exists.

Mintzberg (1979) suggests that five organizational configurations balance the five parts of the organization. The five organizational configurations consist of the Simple Structure, Machine Bureaucracy, Professional Bureaucracy, Divisionalized Form and Adhocracy. These configurations affect the fundamental parts of an organization depicted in Figure 1. The Simple Structure favors the Strategic Apex which guides direct supervision often evidenced by a strong

leader and exists within relatively new organizations. The Machine Bureaucracy operates in the Technostructure where job specialization is significant to management strategies that support a growing or larger organization. Large units exist within the Operating Core and power exists within the Strategic Apex. Mintzberg describes the Professional Bureaucracy as heavily reliant on standardization of skills coordinated by the Operating Core. Larger units are evident in the Professional Bureaucracy and the environment is often characterized as stable yet complex. The Divisionalized Form facilitates power through units in the Middle Line. Performance and outcomes serve as measures of productivity. The Divisionalized Form is often found in larger organizations. The Adhocracy coordinates a balance of all parts of the organization. The balance in funding credit and noncredit education produces complex issues that will require the use of well thought out theoretical concepts to ensure resolution. Communication and collaboration according to Mintzberg are key elements in operating in a complex environment.

Mintzberg (1979) illustrates two important points when determining organization type. One organizational type will favor multiple configurations that seek to achieve balance in an organization of elements that are logically sequenced to fit within an existing environment. A second organizational type that can emerge is a blending of two organizational types determined by changes in environment and pressures that force transitions from one configuration to another. While the current organizational structures of community and technical colleges favor the Professional Bureaucracy, emerging pressures by rapidly changing economic conditions and budget shortfalls may tend to lead institutions to blended organizational types that waiver between the Professional Bureaucracy which accounts for the current state of college structures and the Adhocracy which provides mechanisms for responding to external variables resulting from environmental changes. The balance between internal and external demands weighs heavily

on the effectiveness of the division and college in executing important workforce development strategies.

Smart, Kuh, and Tierney (1997) focus on institutional effectiveness and the balancing of internal and external pressures. Common factors existing in effective institutions include shared vision and participatory decision making between faculty and administrators. Smart et. al. found that institutional culture, external environment, and decision making practices directly tie to the effectiveness of two-year colleges. Recommendations by the authors suggest that college leaders select a participatory leadership style and develop processes that support flexibility between internal and external constituents thus creating an institutional culture that results in heightened levels of effectiveness. Understanding institutional culture, leadership, and decision making practices are crucial in determining existing college practices and attitudes related to noncredit workforce education.

Tierney (1999) provides research tied to the responsiveness of institutions to constituents and the redesign of organizational structures. His research contributions include recognition of multiple factors such as reduced resources, increased enrollment demand, and technological innovation directly impacting faculty. Tierney suggests that rapidly changing factors lead to a "disintegration" of the faculty. Disintegration can occur when a faculty member with an employment agreement consisting of set terms and conditions depending upon institutional type is suddenly thrust into a new scope of training and education inclusive of functional responsibilities that may or may not be attained by the faculty member. For example, a faculty member hired to deliver Emergency Medical Technician training in a technical college is asked by management to provide customized training in emergency preparedness for parish officials. This expanded teaching role for the faculty member changes initial terms and conditions of

employment with the college that often are not renegotiated leading to ambiguous expectations between the faculty member and college administration. This concept is also prevalent in community and technical colleges in Louisiana where commitments to constituents impose ambiguous demands on existing organizational structures that do not tie to a specific strategy for effectiveness. For example, college visioning inclusive of workforce training divisions is rare among community and technical colleges, and while the overall mission of the college is specific to workforce training; academic quality, productivity, and success indicators are aligned with for-credit programs. Tierney suggests that effective "re-engineering" of the college should be based on broad and flexible processes resulting from shared vision where decisions are made by those closest to the "work." The level of engagement or lack of engagement by faculty will have a direct impact on the success of "re-engineering" the college. As colleges within the Louisiana Community and Technical College System are responding to budget decreases and enrollment increases, all departments within each institution are analyzing measures of efficiency to determine sustainable processes to ensure the long-term success of the institution. The level of participation by faculty and staff will determine the effectiveness of the re-engineering of the institution and illustrate the tight or loose coupling of the organization and the influence on decision making by college leaders impacting noncredit workforce education. The re-engineering of the college will support or challenge institutional cultures.

Existing college organizational structures foster an institutional culture that affects the process of change over time. Organizational change often parallels changes in environment. The impact of changes in environment is important to the context of this study as enrollment demands due to a lagging economy are creating organizational changes that are developing rapidly. According to March (1984) organizational change whether in part or whole is related to

environmental changes and as these changes become rapid, dramatic shifts in organizational structure will follow. For example, the Louisiana Community and Technical College System has an organizational structure absent of an executive level position representing workforce development. The Executive Vice President to the President of the System is accountable for both academic and workforce training system initiatives. In January 2011, a newly appointed Vice President for Workforce Development was hired to direct the planning efforts specific to workforce training initiatives designed to meet the needs of business and industry. The change in organizational structure represents a shift in system level response due to heightened awareness of the demand for a greater supply of qualified workers to fuel economic growth. The decision by the System President and Board of Supervisors and change in organizational structure at the system level is reflective of organizational changes paralleling changes in environment as proposed by March (1984).

In addition to the impact on the organizational structure of the Louisiana Community and Technical College System's Office, March's (1984) research on organizational change supports the impacts to colleges during the current economic recession in Louisiana. As the economy is weakened, budgets are reduced to meet shortfalls in state government. At the same time, enrollments in community and technical colleges increase as people attempt to upgrade training skills or benefit from training programs specifically designed to support dislocated workers. Dramatic changes in funding and inconsistent noncredit funding practices in Louisiana and the nation have led to changes in organizational structures in community and technical colleges. For example, colleges are beginning to evaluate the effectiveness of existing workforce development divisions and contemplate the development of workforce divisions where they do not currently exist. One reason is to determine if revenue generation is sufficient to offset budget reductions. A

second reason is to identify market responsive opportunities that incorporate noncredit workforce training activities that lessen the burden on existing for credit programs as college leaders make decisions on which programs will remain. College leaders are charged to carefully examine departmental budgets and seek alternative funding for workforce development divisions in order to endure budgetary shortfalls. This study will include an analysis of organizational structure and an identification of decision making strategies relevant to noncredit workforce education and will result in recommendations concerning sustainable workforce development strategies to support noncredit workforce training. Strategies evidenced in the literature that are significant include determinations of effectiveness when analyzing current organizational structures as separate or interdependent in addition to evaluating the role of existing for-credit faculty when making decisions regarding structural changes as a factor in determining workforce development strategies.

Decision Making Theory

Decision making theory involves an analysis of a situation or condition and a process for determining how to address the situation (Stone, 2002). Understanding decision making theory is a crucial component in drawing inferences on how noncredit education is organized within colleges and to determine the best course of action for future noncredit programs. As indicated in *Policy Paradox: The Art of Political Decision Making*, author Deborah Stone illustrates the significance of policy and decision making. "Policy actions, though, are really *ongoing strategies* for structuring relationships and coordinating behavior to achieve collective purposes" (Stone, 2002, p. 259). An analysis of decision making practices by college leaders will help to explain existing college workforce development structures and provide a blueprint for future organizational and policy changes in noncredit education.

The rational decision model is designed to focus on a policy problem and on an 'actor' (college leader) who determines actions leading to desired outcomes (Stone, 2008). Setting goals, evaluating success, determining consequences, and selecting a final strategy for a desired outcome are key elements of the rational decision model. Fundamental to the model is the assessment of cost, benefit, and risk. Community and technical colleges in Louisiana participate in college strategic planning processes that account for elements of the rational decision model. Traditionally, the strategic planning process is structured around comprehensive college-wide goals, strategies, and activities that may or may not include core development efforts within noncredit or workforce training divisions.

Mintzberg et. al. (1976) challenges the rational model by illustrating that strategic decisions are not sequential and do not necessarily operate in relationships. According to Mintzberg, "...within each phase, decisions follow various routines: decision recognition and diagnosis routines during the identification phase; search and design routines during the development phase; and screen, evaluation-choice and authorization routines during the selection phase" (Mintzberg, 1992, p. 21). Mintzberg argues that apart from traditional rational choice theory, all parts and actors can act independently depending upon environmental factors and existing organizational culture. This claim is critical in understanding existing strategic decision making processes that guide current organizational structures in Louisiana's community and technical colleges. Understanding the processes associated with decision making as it relates to organizational structure will identify the interdependencies and/or autonomies associated with loose or tight coupling of the college. The levels of engagement by those participating in the decision making processes will provide a foundation for existing structures under study and

guide the research in analyzing the rationale associated with current policy and procedures impacting noncredit workforce education.

Milan Zeleny (1981) discusses two decision making approaches. The "Outcome Oriented Approach" begins with the end in mind. Identifying the outcome in the beginning guides the decision making process. This type of approach is evident in community and technical colleges when funding opportunities emerge that are tied to specific outcomes. College leaders structure the workforce development divisions to implement workforce development strategies linked to specific outcomes leading to continued funding. For example, the Louisiana Department of Labor facilitates an Incumbent Worker Training Program (IWTP) that allows qualified training providers an opportunity to work with business and industry to determine training needs. Funding is awarded based on specific outcomes tied to completion rates, advancement, and increased wage earnings. As college leaders and workforce development directors attempt IWTP grants, decisions in organizational structure are specific to successfully accomplishing the explicit outcomes that determine the success of the training initiative in addition to the ability to qualify for additional future IWTP grants. The second approach is the "Process Oriented Approach" and is centered on understanding how the decision is made in order to determine the outcome. This approach is also evidenced by college leaders and workforce development directors in Louisiana's community and technical colleges when noncredit workforce training needs are identified along with the challenge of no funding source tied to implementation. Decision making is central to identifying a means to satisfying training needs while attaining adequate funds to cover the cost and sustain continued training. For example, customized training is common in Louisiana's community and technical colleges. Decisions tied to developing customized training noncredit course offerings originate in planning efforts by the

college to determine what may be needed by business and industry. Financial considerations are accounted for in the packaging and delivery of training.

Zeleny (1981) goes on to frame the decision making process by identifying a consecutive series of stages consisting of the Predecision Stage, Partial Decisions, the Final Decision Stage, and the Postdecision Stage. Predecision emerges with "conflict" which promotes "decision motivating tension." This act propels the decision maker to identify existing alternatives, strengths and weaknesses within the existing structure and the emergence of new alternatives. The management of conflict throughout the evaluation of alternatives will play a critical role in stabilizing the final predecision necessary to support partial decisions. Partial decision begins with evaluation and assessment of predecision. Separating "ideal" and "alternative" predecisions initiates the quest for partial decision making strategies. Evaluation of the predecision will also determine "cognitive dissonance." Transparency associated with how ideal and alternative decisions were accepted or rejected will diminish dissonance therefore aiding in the management of continued conflict. As alternatives are reduced, partial decision making efforts lead to the final decision stage. The final decision is guided by a building of consensus as fewer alternatives open the door for greater commitment by the decision maker. The decision maker acknowledges all variables associated with the process thus far and identifies that the final decision mirrors a culmination of alternatives making the final decision more popular among participants in the process. The postdecision stage encompasses an understanding of the final decision related to determining factors that support and enhance the decision. "Postdecision regret" is common and perpetuates the idea that making a final choice, while difficult, is made based on final alternatives that begin to mirror one another in strengths associated with implementation. Zeleny

summarizes his decision making process by suggesting that implementation of the final decision is a continuation of the postdecision stage.

Zeleny's (1981) multiple criteria decision making stages depict common practices by community and technical college leaders and workforce development directors when identifying workforce development strategies. Grant related training tied to specific outcomes is evident in workforce development divisions as well as customized training activities that provide for more control by administration in development of processes and/or policies associated with implementation. Decision making practices by college leaders and workforce development directors currently incorporate elements of Zeleny's four stages of decision making. An evaluation of existing decision making processes and analysis of the four multiple criteria decision making stages will determine levels of effectiveness tied to organizational structures supporting workforce development strategies for the colleges participating in this study.

Current Role of Noncredit Workforce Education

The Community College Research Center (CCRC) (2008) conducted a study entitled *The Landscape of Noncredit Workforce Education: State Policies and Community College Practices.* The context of the study is centered on the numerous roles of noncredit workforce education. The one-year study funded by the Sloan Foundation addresses research questions that focus on the direct role of noncredit workforce education on workforce development, disadvantaged groups, organizational structure, and the financial impact on the college. The first question focused on the challenges of organizational change and the colleges' ability to flex and adapt to the needs of students, stakeholders, and staff that experience and benefit from noncredit workforce education (CCRC, 2008). The second question was centered on outcomes and documentation that lead to relevant data necessary for measuring the success of noncredit

training divisions. The survey provided a foundation for policy development and serves as an example of the necessity for research on noncredit education research and practice.

A National Center for Education Statistics (NCES) (2005) study identifies twenty community colleges in ten states that provided case studies and interviews which were conducted with state policy makers. States included were California, Florida, Maryland, Nevada, New Jersey, North Carolina, Ohio, Texas, Washington, and Wisconsin. The focus of the study was on an overview of the many roles of noncredit workforce education that center on benefits to individuals, employers, funding for colleges, and implications on noncredit workforce training. Challenges to existing organizational structures were also included and recommended changes as a result of identified implications were explored. The study provided information focusing on outcomes of noncredit workforce education programs and the need for a sophisticated national reporting structure. Similarly, in addition to funding policy, there is a critical need for Louisiana to establish a reporting structure for noncredit workforce education. It will be critical that this reporting structure is designed with considerations provided by other states to ensure consistency when reporting outcomes nationally. In addition, organizational structures vary among community and technical colleges depending upon levels of engagement in noncredit workforce education activities. The study points to the fact that a viable reporting structure will facilitate the establishment of funding policy because it will serve as a measure of performance and provide a basis to determine equitable funding.

Ayers and Miller (2004) conducted a study to determine the use of credit and noncredit workforce education programs. The study concluded with a report to the Chairman, Committee on Health, Education, Labor, and Pensions, U.S. Senate and focused on public community colleges and technical schools. Ayers and Miller (2004) presented findings on the impact of

noncredit workforce education on faculty, funding and policy, and student data systems, including the following: 1) Administrators embrace noncredit workforce education training due to the increased ability to respond to rapidly changing and emerging local economic development needs. They are not burdened with the bureaucratic processes that accompany new credit program development. 2) State funding policies generally differ among programs, however, states often provide less funding to support schools' noncredit education and training programs, and 3) The majority of data collection is geared to credit occupational training programs.

Similar to Louisiana, many higher education institutions' noncredit workforce education training program outcome data is tracked in homegrown data systems that are not in sync with national data systems. Home grown data systems are designed for reporting data that ties to internal needs such as accreditation compliance. In addition, these systems are designed for compliance with state requirements such as determining credit hour student load reporting and federal compliance such as IPEDS reporting. Findings from The National Center for Education and Statistics support the need for research in funding noncredit workforce education programs if they are to remain a viable training option. As Louisiana's community and technical colleges engage in the Governor's workforce development agenda, relevant training programs that lead to increased enrollment while meeting the needs of rapidly changing economies will take center stage. Organizational structures will be challenged and required to exercise flexibility while providing a clear vision for the college. In the Governor's agenda, high demand occupations will garner funding for workforce training regardless of credit or noncredit course design.

Nock & Shults (2000) identified "hot" programs as those in which students are hired immediately upon graduation. They included student enrollment, salary upon graduation, and

credit/noncredit programs meeting industry demand among relevant criteria for such programs. Nock and Shults presented a survey to chief academic officers at more than 1,100 community colleges that yielded a 19 percent response rate. Hot noncredit and credit programs were differentiated by vendor certifications for noncredit programs. Course additions in the computer technology field were most common and the reason was well articulated by industry demand (Nock and Shults). This study demonstrates that varying levels of noncredit workforce education offered at institutions are frequently based on consumer demand.

According to a survey by the Information Technology Association of America, (2000) a trade association representing the IT industry, more than 10 million IT jobs existed in the United States in 2000, and 1.6 million were expected in subsequent years. In addition, many of these jobs require vendor certifications and community colleges were selected by business and industry as effective in developing the needed IT skills. Related literature indicates that business and industry seek flexibility from two-year higher education institutions. Other career pathways have been initiated by community and technical colleges to address employment needs. As Louisiana's community and technical colleges prepare strategies to design and deliver relevant training opportunities, it is critical that administrators understand historical noncredit workforce training education paths in addition to existing trends that guide policy decisions for the future. Organizational structures will play a pivotal role in supporting noncredit workforce education as enrollments increase. Higher education policy makers in Louisiana do not have to look far to identify states that have sustained noncredit workforce education initiatives through the development of state policy.

Funding Formula Overview

According to Caruthers and Orwig (1979) formula funding is designed to provide structure within a budgetary process that is based on enrollment data, traditionally historical, and accounts for current and future operation and management of educational programs. "Each formula manipulates certain institutional data based on mathematical relationships between program demand and costs to derive an estimated dollar amount to support future program operation" (Paulsen and Smart, 2001 p. 514). Formula funding and budgetary planning require an initial funding dedication. Dedicated funding is most commonly provided by an appropriation to higher education by state government. Advantages of the formula funding process include equity in distribution of funding among multiple higher education institutions, a consistent practice understood by legislators and higher education officials, and common definitions of quantitative indicators that support the missions of colleges and universities. Disadvantages include little flexibility in responding to uncertainty in funding during economic downturns, enrollment loss, planning for future program development, and little support for qualitative data.

The formula funding process for colleges and universities in Louisiana begins in the legislature. Under House Bill 1, funds are appropriated to the Louisiana Board of Regents for distribution to member institutions. The Board of Regents currently serves as the coordinating body that administers the formula based on quantitative indicators that account for enrollment growth, college mission, performance in student completion, and percentage of state general fund. Once funds are determined by the Board of Regents and allocated to each System, the Louisiana Community and Technical College Systems office distributes the funding based on the formula to member institutions.

One of the challenges with the current distribution of the formula funding model for higher education institutions is that the formula does not account for high demand/high cost training programs, enrollment loss/gain as a result of economic instability, and is not fully implemented due to budget shortfalls in the State of Louisiana. As a result, recent budget reductions by higher education institutions, resulting from a shortfall in the budget for the State of Louisiana, leads to a misalignment with workforce demand or future planning for emerging industries and future job opportunities for Louisiana's graduates. Other states in the nation have accounted for formula funding mechanisms to support noncredit workforce training programs that insulate institutions during economic downturns leading to budgetary crisis.

Georgia and Texas: A Comparative Analysis

The Education Commission of the States (ECS) conducted a survey in 2000 that focused on the top education policy issues projected for US community colleges (ECS, 2000). This comprehensive survey centered on finance, accountability, funding formula, and performance indicators and produced a state by state analysis of funding for noncredit courses. For the purpose of this study, Georgia and Texas funding models were used to illustrate a comparative analysis that provides a unique perspective as to the impact of noncredit workforce education funding policy.

Two higher education boards govern Georgia's higher education system. The University System of Georgia governs 35 colleges and universities while the Technical College System of Georgia maintains a board that governs Georgia's multiple technical colleges throughout the state (USG Website, 2009). The Texas Higher Education Coordinating Board governs all higher education institutions and is made up of board members appointed by the Governor. Georgia and Texas benefit from noncredit education appropriations distributed by formula funding models

(TCB Website, 2009). Each state has unique workforce training incentives that complement the existing formula funding model. A study by the Education Commission of the States further illustrates similarities and differences between states.

The purpose of the study entitled *State Funding for Community Colleges: A 50-State Survey* derived from a need of state college directors for a data source to determine the impact of workforce training in all 50 states (Jenkins and Boswell, 2001). While ECS does not consider the survey a perfect comparison among states due to natural differences, they are confident the survey provides a starting point for researchers and policy makers to make decisions (ECS, 2000). For the purpose of this study, I will use the survey to provide a comparative analysis between the Georgia and Texas higher education systems with a specific emphasis on funding and workforce training.

State appropriations are commonly guided by formula funding models for community colleges. According to ECS (2000) Georgia and Texas are among twenty-nine states that report using formula funding models for determining college appropriations while fifteen states reported no funding formula used when determining appropriations. It is also common for formula funded states to use methods of determining appropriations based on the total amount of funds dedicated to all colleges known as "pre-appropriation" in contrast to individual college appropriations known as "post-appropriation." According to ECS, Georgia uses the pre-appropriation method; appropriations based on total amount of funds while Texas uses the post-appropriation method; appropriations based on individual college budgets when determining distribution of funds. In Georgia and Texas the funding formula is driven by previous year enrollment only, while other states include drivers such as enrollment, space utilization, and comparison with peer institutions (ECS, 2000).

To further compare funding structures between Texas and Georgia's two-year higher education systems it is important to note the impact of line item appropriations. According to the ECS survey, when asked if the legislature designates community college appropriations as a series of line items, Texas officials responded "yes" and Georgia officials responded "no." Finally, when asked if salaries are included as a separate line item, Georgia officials responded "yes" and Texas "no." A relevant source of data when studying the financial structures of twoyear higher education systems is to look at sources of funding when determining operational costs. Historically, higher education institutions have received substantial funding from local sources (Cohen and Brawer, 1996). Today, two-year higher education institutions are seeing a shift. The ECS survey provides the percentage breakdown for Georgia, Texas, and Louisiana for general operating funds for 1998-1999. Table 1 illustrates the comparison of operational funding between Georgia, Texas and Louisiana. Texas, Georgia and Louisiana count full-time enrollment (FTE) as 30 credit hours annually.

State	Federal	State	Local	Tuition & Fees	Other
Georgia	10.00%	63.00%	14.00%	13.00%	None
Texas	14.40%	37.90%	17.90%	19.90%	9.80%
Louisiana	17.00%	55.00%	None	21.00%	7.00%

 Table 1: Comparison of Operational Funding for Credit Enrollment

(Source: ECS State Funding for Community Colleges: A 50 State Survey)

The greatest variance within the ECS survey emerged when analyzing survey results related to noncredit funding efforts. The results of the ECS survey indicated that 46% of the colleges surveyed responded "yes" when asked if noncredit enrollments generate revenue for the college while 54% (25 states) responded "no." Those states that receive state support provided examples of qualifying programs to include noncredit certificates, customized training, and lifelong learning. Georgia and Texas officials did not provide a response. Georgia and Texas officials indicated that non-state sources support workforce training initiatives in general. For

example, Georgia relies on specific college dedicated funds outside of a formula funding mechanism such as the Georgia Quick Start program that directly impacts colleges and businesses. Texas benefits from a technology fund in addition to a noncredit formula funding structure that must be directly tied to continuing education units. Both states benefit from adult basic education funds not directly supported by formula funding.

The Education Commission of the States survey concluded with common considerations noted by survey respondents. Of primary concern was the need for improved state funding in addition to greater emphasis on the lack of workforce training funding and its impact on workforce and economic development efforts guiding organizational change. According to ECS survey respondents, the highest priority needs to be placed on the long term implications of inadequate funding for workforce training and economic development critical to the mission of the colleges.

Implications of Noncredit Education and Research

In George Boggs' (2004) study entitled *Community Colleges in a Perfect Storm;* he discusses the tragic reality for many states that are experiencing increasing noncredit enrollment trends. According to Boggs, a decrease in formula funding per student has not followed increased student enrollment. This trend coupled with growth in remedial education which remains under-funded has resulted in an increasing burden on states throughout the country. These indications and predictions suggest that a better understanding of this population of students can result in increased noncredit student enrollment. The expansion of noncredit enrollment has led to positive and negative influences on higher education institutions. For example, organizational change has resulted in institutions having to quickly modify student

services, change budget structures, and acknowledge the importance of credit/noncredit faculty relationships.

Grubs, Badway, and Bell (2002) recommend a merging of credit and noncredit divisions that will enhance the revenue generating power of the college and require changes in organizational structures. Suggestions include faculty sharing, joint advisory committees, common funding for both credit and noncredit activity, merging administration, and consolidating student services. The need for additional research related to student transfer will impact both credit faculty and noncredit workforce education faculty and lead to additional policy discussions centered on organizational change and formula funding mechanisms that incent noncredit enrollment growth and transfer.

The Community College Research Center study entitled, *The Landscape of Noncredit Workforce Education: State Policies and Community College Practices*, (2008), provides a recommendation consistent with future considerations of other related studies on the impact of noncredit workforce education. Considerations include the need to clearly identify outcomes aligned with a sophisticated national student data system. The authors illustrate that employers will need to play a critical role in this process and administrators must be cognizant of diverse student populations. In essence, two-year higher education institutions need to get a better handle on the student population being served in noncredit workforce education programs. A second consideration is for additional research on transferability for noncredit workforce education students to credit programs. "…the experiences of students moving from noncredit to credit programs and the use of mechanisms to translate noncredit to credit, such as articulation and credit for prior learning are particularly important areas for research because of their implications for students' access to degree programs" (Van Noy et.al., 2008, p. 50).

Existing research related to noncredit workforce education reveals a desperate need for sophisticated local and national student data systems that support accountability measures through defined outcomes for noncredit students. Rosenbaum (2007), author of a study of twoyear colleges in the Midwest Region, presented results of a seven-year survey designed to identify need gaps for two-year institutions. These gaps include emerging exit points within twoyear college curriculum that support both credit and noncredit workforce education. Specific to noncredit education, the author defined what is considered "not" college by defining what is considered "college." "To understand what is 'not college,' 'college' must be defined. College refers to a postsecondary educational institution that leads to an accredited degree at the associate's level or above. A 'college course' is a course that offers credit toward an accredited degree" (Rosenbaum, 2007, p. 5). The author states that classification is critical to identifying specific outcomes for noncredit workforce education students. Once noncredit workforce education students are accurately classified, only then can education policy makers begin to identify strategies to better serve an under-documented student population. This finding supports the claim that there is a void between the noncredit needs of two-year higher education institutions and policy makers which is why this problem is important. Future considerations by researchers will include definitions of training categories for noncredit workforce education divisions that align nationally.

Summary

Central to the discussion on the impact of noncredit workforce education on higher education institutions is the notion that current research efforts focus on the actual amount of noncredit education taking place in the nation's higher education institutions as opposed to the impact of noncredit education on decision making by college leaders and organizational

structure. In addition, studies of noncredit formula funding models and outcomes are currently taking place and results of the studies are beginning to impact higher education policy decision makers. Ayers and Miller (2004) indicated that community and technical colleges use a variety of course offerings that support both credit and noncredit workforce training. Colleges indicated that they benefit from noncredit workforce education and continue to struggle to find a place in the college for a workforce training division. In addition, most colleges are tracking some kind of outcome for noncredit workforce education students, but the challenge is that tracking is inconsistent among colleges.

Van Noy et. al. (2008) identified the many roles of noncredit workforce education in community and technical colleges and cited additional impacts on college organization and consumers. Findings included that colleges rely on noncredit workforce education for credit program recruitment, enhancement, and revenue generation. Grubb, Badway, and Bell (2002) point out that historically, community colleges were seen as points of access for the masses seeking training opportunities for employment, basic skills enhancement and college transfer. Of most significance, they report that community college efforts to serve noncredit workforce education students contribute to stratification within higher education institutions. The claim of noncredit education inequity is supported by additional studies that identify noncredit courses as receiving the least amount of college funding and are underserved by student data systems that only measure outcomes designed for credit enrolled students.

Workforce development divisions in Louisiana's community and technical colleges function within operational structures specifically designed to manage credit enrollment processes. This structure is representative of Mintzberg's (1979) Professional Bureaucracy where workforce development divisions operate in an administrative structure designed to support

outcomes not necessarily aligned with goals and objectives of noncredit workforce training. In addition, loose coupling is reflective of the interdependencies among organizational units which result in varying levels of workforce development strategies.

Existing organizational structures have varying levels of interdependency within divisions that are disjointed and do not include a broadening of college mission to account for activities within workforce development divisions. Identifying the core components of the community and technical college organizational structures participating in the study are critical in determining the impact of noncredit workforce training on organizational structures and decision making by college leaders supporting workforce development strategies. Understanding the decision making practices of college leaders and the coordination efforts of workforce development divisions will guide policy considerations resulting from findings in this study.

Chapter 3 Methodology

Purpose

With expanding noncredit enrollments in our nation's community and technical colleges, one must not only question why such growth, but also the impact on higher education institutions (Burnett, 2001). The purpose of this study was to analyze organizational structures and how they impact decision-making related to noncredit education and workforce development strategies in Louisiana's Community and Technical Colleges. This case study incorporated qualitative research methods such as participant interviews, field work documented via field notes, and observations to evaluate decision making by college leaders and organizational structures related to noncredit workforce training and identified the implications for workforce strategies.

Research Questions

Research questions that guided this study focused on organizational structures associated with noncredit education funding and the impact on determining workforce development strategies in Louisiana's community and technical colleges. The primary question in the study was centered on how college leaders make decisions on college organizational structures to address noncredit workforce education. Additional questions included the following: 1) how does existing state policy on formula funding impact noncredit workforce education strategies within colleges? 2) how are noncredit workforce training demand with existing organizational structures and current funding policy for higher education institutions?

Pilot Study

A pilot study conducted in 2005-2006 at the Northshore Technical Community College Florida Parishes Campus consisted of an exploratory case study centered on interviews of the

campus administrator, the lead faculty member of the mine safety noncredit workforce training program, and a purposeful sample of three students receiving the annual refresher noncredit training course who participated in a focus group. The study centered on the impact of noncredit training on the institution, the consumer, student services personnel, and industry. Initial findings from the pilot study appear to support the premise that increased noncredit workforce training does have an impact on the institution and organizational structure in areas such as enrollment management, student services, and formula funding. Findings included changes in the registration process for noncredit students with the creation of a separate noncredit application, after-hours availability of student services staff to provide resources such as access to the career center for noncredit students, and changes in the college business model to ensure revenue over expense for noncredit training to sustain and grow additional noncredit training opportunities.

Conceptual Framework

Decision making by college leaders related to organizational structure and its impact on noncredit workforce training strategies defined the conceptual framework for this study. Utilizing Multiple Criteria Decision Making by Zeleny (1981), decision making strategies based on interviews of college leaders and workforce development directors were identified and related to a conceptual framework that illustrated causes and effects of the decisions on current organizational structure. Four criteria proposed by Zeleny (1981); Predecision, Partial Decision, Final Decision, and Postdecision were used to establish a foundation in determining variables that lead to the development of organizational structures that impact noncredit workforce development strategies. Based on the interviews conducted in this study, findings were analyzed to determine the effectiveness of decision making on organizational structure utilizing the work of Mintzberg (1979). Utilizing Mintzberg's Five Basic Parts of an organization, decision making

by college leaders, impacts to organizational structure, and workforce development strategies

resulting from the process were examined.

Mapping the Decision Process to Determine the Impact of Organizational Structure on Noncredit Workforce Training Strategies

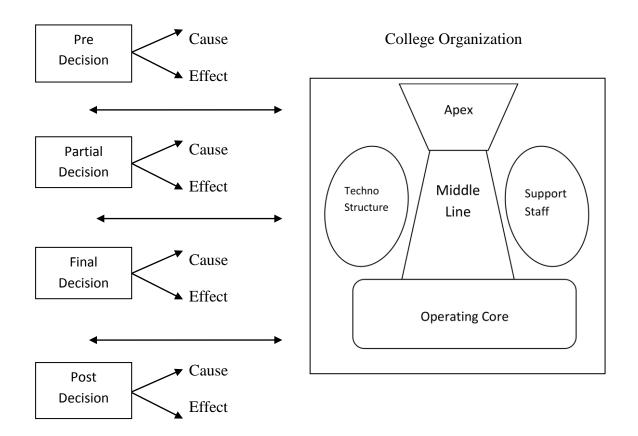


Figure 2. Multiple Criteria Decision Making (Zeleny, 1981) and Five Basic Parts of an Organization (Mintzberg, 1979)

Figure 2 represents the causes and effects of decision making resulting in organizational structures that affect noncredit workforce training strategies. This diagram framed the decision process as evidenced by each college leader to illustrate cause and effect of decisions in relation to the four criteria proposed by Zeleny (1981) that lead to current organizational structures supporting noncredit workforce training strategies. Mintzbergs Five Basic Parts of an

Organization helped to frame the organizational structure for each participating college based on decisions by college leaders. Data was analyzed in order to interpret how each case demonstrates an impact on each of the components of Mintzberg's (1979) organizational forms. The results of this analysis determined the influence of organizational structure on workforce development strategies. In addition, the impact of decision making practices on organizations, workforce divisions, environments and activities were considered and accounted for in the interview process. Upon the completion of interviews, effects of decision making on organizational structure and workforce development strategies were analyzed and current organizational outcomes will be analyzed and documented for the study. Results provided a foundation for studying the direct effects of decision making on organizational structures.

As indicated in *Policy Paradox: The Art of Political Decision Making*, author Deborah Stone illustrates the significance of policy and decision making. "Policy actions, though, are really *ongoing strategies* for structuring relationships and coordinating behavior to achieve collective purposes" (Stone, 2002, p. 259). An analysis of decision making practices by college leaders in the context of Zeleny's Multiple Decision Making Criteria not only examined existing college workforce development structures but provided a blueprint for improving future organizational response to further address noncredit workforce development strategies.

Qualitative Research Method

A qualitative research design was selected for this study due to limited noncredit education quantitative data in Louisiana's community and technical colleges. As a result of varying student information systems among all colleges including Banner, PeopleSoft, and multiple home grown student data systems, noncredit education is accounted for differently among institutions. In addition, evaluation of organizational structures and inquiry associated

with decision making by college leaders impacting the development of organizational structures surrounding noncredit education prompted a qualitative research design for this study. A collective case study guided inquiry necessary to determine decision making by college leaders, study impacts to organizational structure, and garner critical data to draw conclusions. "A case study is an in-depth exploration of a bounded system (e.g., an event, process, or individuals) based on extensive data collection. 'Bounded' means that the case is separated out for research in terms of time, place, or some physical boundaries" (Cresswell, 1998 p. 485).

Case Study

Stake (2000) defines a case study as one where a researcher studies an 'activity' or 'event' sharing commonalities such as period of time and/or uniqueness of event. According to Creswell (1998) a case study is one that is 'bounded'; identified for in-depth study as a result of a unique event or series of events which share commonalities such as date and time. Types of case studies include Intrinsic Case Study; one that is of particular interest in and of itself, Instrumental Case Study; one that if studied as a case will yield an issue of interest, and Multiple Instrumental Case Study also known as Collective Case Study; one that is a culmination of several case studies that compare and contrast data to identify an issue (Stake, 1995). Stake (2000) proposes that an analysis of field work, interviews, and observations will determine what are termed 'nested' or 'layered' case studies essential to development of a comprehensive analysis of a particular issue.

A case study was best suited for this project as Louisiana's community and technical colleges are experiencing common issues related to budget reductions, increased student enrollments, and the need for expanding workforce development divisions. Colleges are working to analyze budget reduction strategies while attempting to increase revenue generation. The

colleges in this collective case study use the same credit formula funding method for distribution of the state general fund which creates a common environment for strategic planning and decision making. This environment also creates common organizational structures with the goal of realizing the greatest efficiencies to sustain the missions of colleges. Noncredit workforce training efforts are common to all four colleges under study. In addition, each college currently delivers noncredit workforce training activities as a unique division within the college with similar goals and objectives related to revenue generation and serves the college mission while meeting the needs of business and industry.

Four member colleges of the Louisiana Community and Technical College System participated in a collective case study. Multiple cases representing noncredit education activities within four colleges were studied in an attempt to identify impacts on college structure and decision making by college leaders. These cases were centered on organizational structures and how they affect noncredit workforce education and determining workforce strategies in Louisiana's community and technical colleges. The collective case study was implemented by initiating in-depth information gathering techniques to ensure a clear understanding of each case (Creswell, 2002).

A comparison of the four institutions provided insight into the issue of noncredit education policies and considerations influencing decision making by college leaders and organizational structures related to workforce development strategies. Minimal data exists on noncredit workforce training and its influence on community and technical colleges in Louisiana. As a result, interviews of college CEOs and workforce development directors were conducted to identify themes common to delivery of noncredit education courses and programs. This provided

current data related to practitioners in the field implementing current workforce development strategies within existing policy and organizational structures.

Prior to conducting interviews, I identified gatekeepers of college CEOs and personnel located in each workforce development division. A formal request for access and a detailed overview of the purpose of the study was provided to the gate keeper and each college CEO. Once access was granted, I arranged a schedule detailing dates and times for interviews. Upon the completion of interviews and transcription of data, I conducted first and second level coding and identified patterns and common themes (Creswell, 2003). Within-case analysis provided data that was evaluated using qualitative data displays. Four institutions were studied and specific to the issue at hand, patterns and themes were identified noting differences and commonalities.

It was also important to understand the research setting and organizational structure. Document analysis through the evaluation of strategic plans and organizational structures of the colleges provided valuable insight in preparation for conducting the study. Effective protocol inclusive of documentation of setting, careful descriptions of observations, and reflection were assessed utilizing a formal observation method. For example, descriptive accounting of participants, location, and experiences resulting from the observations were documented during each interview. Document analysis provided additional insight in reviewing organizational charts to determine the positioning of noncredit workforce education within existing organizational structures.

The location of noncredit workforce training divisions within the organizational structure of the colleges is important and was accounted for in document analysis. A complete tour of the college campus prior to conducting research provided a glimpse of the college environment. Maps illustrating locations of workforce development divisions in addition to organizational

charts were collected to compare and contrast how noncredit workforce education is physically and organizationally positioned within the college. A visit to the student affairs division also provided relevant information for the research study specific to admissions and student data efforts related to noncredit workforce education.

Selection of Participants

Cases selected for this study were intentionally selected using purposeful sampling. According to Creswell (2002), purposeful sampling is most commonly used as a strategy where 'sites' or 'individuals' are selected to identify a common 'phenomenon.' Identification of colleges for the purposes of this study was completed by an assessment of noncredit activity at all sixteen colleges within the Louisiana Community and Technical College System. This was completed through an analysis of noncredit activity based on evaluation of data via annual reports, reported data on college websites, and anecdotal data by college leaders at system leadership meetings. The identification of the four colleges selected for this study was determined by those that were considered as "information rich." According to Patton (1990) it is important to 'carefully' identify those sites that are "information rich" to ensure adequate information that will produce rich data for effective analysis to determine findings. Characteristics of information rich data for the purposes of identifying participating institutions in this study include noncredit education participation rates (high v.s. low), institutional type (community college/technical college/technical community college), and mission (workforce training/transfer).

College 4 and College 2, two colleges with high participation rates in noncredit workforce training in the Louisiana Community and Technical College System (LCTCS), in addition to College 1 and College 3, two colleges with low noncredit participation rates, were

studied to draw comparisons and analyze decision making by college leaders and organizational structures within institutions. None of the institutions within the LCTCS benefit from a formula funding policy for noncredit education. However, the analysis of themes resulting from this study provided best practices from which to examine the development and implementation of workforce strategies and assist with determining the impact of the absence of a funding policy. This study utilized decision making theory by Zeleny (1981) to determine how college leaders make decisions regarding noncredit education programs. Existing organizational structures used to implement noncredit education programs at high participating and low participating noncredit training institutions were studied to identify organizational structures that exist within the current funding environment for higher education.

Research Setting

Four colleges within the Louisiana Community and Technical College System were asked to participate in the study. The four colleges consisted of College 1, College 2, College 3, and College 4. The four colleges under study represent institutions that vary from high to low participation rates in noncredit education. "The mission of the Louisiana Community and Technical College System (LCTCS) is to prepare Louisiana's citizens for improved quality of life, workforce success, and continued learning" (LCTCS Website, 2011). The governing body of selected institutions consists of the Louisiana Community and Technical College System Board of Supervisors. Board members are appointed by the Governor of Louisiana and represent a 14 member board with an additional two members consisting of student board members elected to the board position by the student body constituting the student population of the Louisiana Community and Technical College System. For the purposes of the study each college was identified under an alternate college name and college leaders and workforce development directors were identified by title only.

The leaders for this study were Chief Executive Officers of each college. College leaders possess delegated authority for the institution as permitted by the governing body. Workforce Development Officers represent community college and technical college directors responsible for workforce development divisions and activities within each college. Workforce Development Officers are leaders of workforce training divisions located within the college ultimately responsible for the planning and implementation of workforce development strategies for the college. Staffing varies among college workforce development divisions. Functional responsibilities also vary by college depending on organizational structure.

College Profiles

College 1

College 1 is managed as a single campus with multiple buildings; and supports a mission centered on academic transfer and workforce training. The workforce development division is located in the main building between the administration and academic affairs divisions. The division is supported by one director, two program coordinators, and one administrative staff member. The Director is the leader of the division and the program coordinators manage grant activities and program offerings specific to noncredit education. College 1 is located in an industrial park in close proximity to an airport serving a large city. The mission of College 1 "is to empower students in transfer, career, and technical education to become globally competitive citizens through state-of-the art learning experiences in all programs and services" (College 1 Website, 2011). The college is led by a Chancellor; is accredited by the Council on Occupational Education; is currently seeking candidacy with the Southern Association of Colleges and

Schools; and is a member institution of the Louisiana Community and Technical College System. College 1 continues rebuilding efforts as a result of damages from a major hurricane in 2005. Fall 2010 Board of Regents Enrollment Census was 2,621, while the college FY 2010 unduplicated noncredit enrollment census was 296.

College 1 has a Workforce Development Unit (WDU) that offers workforce training opportunities outside of traditional credit program offerings. "The mission of the College 1 WDU is to develop, design, support, and provide education and training programs and services that meet the specific needs of employers, employees, and citizens in the communities we serve" (College 1 Website, 2011). Continuing Education courses are offered as a separate program within the WDU for professional and personal enrichment. Noncredit workforce training courses include but are not limited to Achieve Global management and leadership, safety, computer software, and incumbent worker training. The WDU in College 1 appears to function as a separate unit within the college. The WDU supports a Vice Chancellor of Economic and Workforce Development, a Director of Workforce Development and a Training Coordinator for training associated with grants.

College 2

College 2 is operated as a multi-campus regional technical college serving several parishes in south Louisiana; and supports a mission centered on workforce training. The workforce development division is located on the main campus in a separate office behind an instructional classroom and has one director, one coordinator, and one staff member. The Director is the liaison facilitating training relationships between multiple campus leaders and business and industry partners. The one coordinator facilitates the development of grants and is supported by one staff person. College 2 is located in an industrial park supporting the marine

industry. The mission of College 2 "is to prepare Louisiana's citizens for improved quality of life, workforce success, and continued learning" (College 2 Website 2011). The college is led by a Regional Director; accredited by the Council on Occupational Education; and is a member of the Louisiana Community and Technical College System. Fall 2010 Board of Regents Enrollment Census was 3,020, while the college FY 2010 unduplicated noncredit enrollment census was 721.

College 2 provides workforce development customized programs. In place of a formal mission statement, the college offers the following statement: "College 2 campuses are leaders in workforce development. We prepare participants in our programs with job skills that are necessary in today's job market" (College 2 Website, 2011). No listing of noncredit courses exists on the website nor is there any evidence of an organizational structure facilitated by a designated point of contact. At first glance, it appears that the college primarily provides customized training centered on the one specific industry sector.

College 3

College 3 is operated as a multi-campus regional technical college serving several parishes in northeast Louisiana; and supports a mission centered on workforce training. The main campus of College 3 is located on a service road off of a major interstate. The college is led by a Regional Director; accredited by the Council on Occupational Education; and is a member of the Louisiana Community and Technical College System. Fall 2010 Board of Regents Enrollment Census was 3,021, while the college FY 2010 unduplicated noncredit enrollment census was 535.

College 3 has a technical workforce development division within the college. During the development of this study, College 3 transitioned in leadership from the current Director to the

Chancellor of the local community college who holds management authority for both institutions. The workforce development division of the technical college remains separate from the community college. The workforce development division at the community college is housed in a separate building dedicated for workforce training and located on the main campus while the workforce division at the technical college is located behind the student dining room in the back of the campus. One director, two coordinators, and two staff members support the workforce divisions on both campuses. The directors lead the divisions serving as liaisons between the college leader and the departmental leaders. The coordinators participate in grant writing and coordination in addition to program planning for noncredit course offerings. The workforce development division supports the following mission: "Our mission is to become Louisiana's leader in workforce development by providing innovative short-term programs which create long-term employment. We hope to re-engineer and re-train Louisiana's workforce in order to compete in an ever-changing global marketplace" (College 3 Website, 2011). The workforce development division is staffed by a Dean and an Administrative Assistant. The division is also responsible for noncredit education offerings in addition to customized training. Noncredit course offerings for spring 2011 included professional, business, on-line and personal enrichment offerings. A sample of courses includes banking, English as a Second Language (ESL), construction, customer service, leadership, safety, computer software, home energy, income tax, dance and personal finance. Several additional noncredit course offerings exist and on-line registration is available.

College 3 has a workforce development division (3.1) led by a Dean of Special Programs. In addition, the division also staffs a Workforce Safety Coordinator and an Incumbent Worker Training Program Coordinator. "The College 3.1 mission statement for the workforce

development division "is to enhance the quality of life for all by providing educational programs and services that offer flexible, relevant, and timely training opportunities to meet the economic development needs of our region" (College 3.1 Website, 2011). The division provides OSHA training, Pharmacy Tech, college and career planning, Incumbent Worker Training (IWTP), and company requested training. Each category of training provides a listing of noncredit courses available for clients to choose from.

College 4

College 4 is managed as a single campus with multiple buildings, and supports a mission centered on academic transfer and workforce training. The workforce development division is located on the first floor of the Health Sciences building. The division is staffed by one director and three coordinators who manage special programs supportive of noncredit education. Four staff members support the workforce development division and provide student services associated with noncredit workforce training. College 4 is located off of a major interstate and adjacent to a large Air Force Base. The mission of College 4 "is a two-year community college with over 5,000 students enrolled each semester. Academic programs of study result in credentials such as: Associate Degrees, certificate/technical diplomas, and technical competency areas. In addition, College 4 provides courses that transfer to four-year degree granting institutions" (College 4 Website, 2011). The college is led by a Chancellor; is accredited by the Southern Association of Colleges and Schools; and is a member institution of the Louisiana Community and Technical College System. Fall 2010 Board of Regents Enrollment Census was 6,473, while the college FY 2010 unduplicated noncredit enrollment census was 3,838.

College	Mission	Credit/Noncredit	Location	Awards	WDO Staff
		Enrollment		Granted	Configuration
1	Transfer/Workforce	Credit: 2,621	Southwest	AS/	1 – Director
	Training	Noncredit: 296	Louisiana	Degree/	2- Coordinators
				Diploma/	1 – Admin. Staff
				Cert.	
2	Workforce Training	Credit: 3,020	South	AAS	1-Director
		Noncredit: 721	Louisiana	Degree/	1-Coordinator
				Diploma/	1-Admin. Staff
				Cert.	
3	Transfer/Workforce	Credit: 3,021	Northeast	AS/	1-Director
	Training	Noncredit: 535	Louisiana	Degree/	2-Coordinators
				Diploma	2-Admin. Staff
4	Transfer/Workforce	Credit: 6,473	Northwest	AS/	1-Director
	Training	Noncredit: 3,838	Louisiana	Degree/	3-Coordinators
				Diploma/	4-Admin. Staff
				Cert.	

 Table 2: Identification of Colleges: Profile Characteristics

Interviews of college leaders and workforce development directors provided an in-depth review of the existing organizational structures and modes of delivery for noncredit workforce training. In addition, a common data request representing a set period of time during the process of conducting interviews illustrated how colleges account for noncredit workforce training activities. The data request illustrated total noncredit college enrollment by unduplicated head count from July 1, 2010 through June 30, 2011. Data comparisons revealed the level of noncredit workforce training activity by college and served as a useful tool in identifying existing organizational structures.

Qualitative Design

Qualitative data collection methods used for this collective case study included interviews, observations, documents, and additional materials deemed appropriate as presented and discovered throughout the study. According to Creswell (2002) qualitative data collection methods are inclusive of 'less structured' data collection methods such as open ended questions for selected participants, unlimited observations, field notes captured by journaling, and environments conducive for sharing of experiences by participants. These strategies for qualitative data collection provide the researcher a frame of reference in order to communicate a complex theme or phenomenon.

I began with individual interviews specifically of community college and technical college CEOs. These college leaders provided the foundation for an understanding of how noncredit education courses are initiated and developed within their institutions. The purpose of the interviews was to gain a clear understanding of the decisions that guide the delivery of noncredit workforce training and its impact on the college. Organizational structure, budget design, and enrollment patterns were analyzed to frame units of analysis for each college. Interviews were conducted with Chief Workforce Development Officers at each college to gain a detailed understanding of the local and regional economies fueling the noncredit workforce education enrollment and focus on the services provided to noncredit students. These understandings were critical in determining funding considerations for noncredit workforce education from the perspective of college leaders and practitioners on Louisiana's community and technical college campuses.

Upon completion of the interviews of college CEOs and workforce development officers, field notes were transcribed and open coding techniques (Cresswell, 2003) completed to provide an in-depth analysis of the data. A within-case analysis was conducted to study commonalities and differences between college leadership and workforce development leaders' perceptions of the impact of noncredit workforce training education on colleges. Decision making theory studied in the literature review assisted with framing leaders' perceptions. For example, data provided an understanding of decision making strategies that have resulted in organizational

responses that either solidify or separate the organization. Comparisons also occurred between institutions with high noncredit enrollment rates versus low noncredit enrollment rates. The results were analyzed and themes and patterns studied to determine implications related to the impact at each institution.

Role of the Researcher

As a college administrator, I am faced with noncredit workforce training challenges. This challenge has provided a foundation for exploring the impact of funding noncredit workforce education on decision making and organizational structure. For example, when appointed in 2006, I was given the charge by LCTC System administration to advance workforce training efforts within the greater northshore region. At that time, there was no mechanism within the existing college's organizational structure to deliver and expand workforce training efforts. In addition, all elements within the formula were funded for credit enrollment and the trend was to develop additional healthcare related training programs due to such programs carrying a greater weighted financial yield within the formula. Noncredit workforce education was happening infrequently and based upon employer demand. There were no efforts to develop a noncredit workforce delivery system that served current demand from business and industry and anticipated future demand for growth. Strategic planning efforts incorporating key stakeholders from business and industry led to the development of a workforce development division within the college that was established in 2007. The intent of the creation of the division was to establish a revenue generating enterprise within the college that would become self-sustaining within five years. The workforce development division is housed in the center of the regional multi-campus college and serves all campuses. The Chief Workforce Development Officer coordinates business and industry relationships with campus administration to determine

workforce training opportunities. Initial grant opportunities were restrictive in supporting administrative costs and due to economic recession, business and industry continue to struggle to provide additional funding to sustain workforce development strategies. While the division has been in existence for four years, it is not yet a sustainable enterprise, yet the benefits of relationship building and marketing, though intangible, appears to have a positive impact on the college. For example, successful noncredit training in Pharmacy Technician provided to a large healthcare facility has encouraged additional for-credit training opportunities in related areas such as medical coding and billing for insurance.

I am responsible for the planning and management of a 9.7 million dollar budget comprising four technical college campuses with a Board of Regents recorded Fall 2010 14th Day Credit Enrollment Census of 3,532. An additional 7 million dollars supplements the budget as a result of restricted funds. Restricted funds constitute federal and state grant funded training that contributes to the success of the college. Because these dollars are significant, it may limit my objectivity as researcher. Peer review conducted by a colleague in a similar role and institutional setting allowed me to reconcile bias. Field notes and actual accounts as provided by participants will present a true picture of the noncredit scenario at each institution. I served as the means to report the words and actions of participants. The mission of the college is workforce training and noncredit training is central to the mission. The college is supported by a funding formula that supports credit training only. The organizational structure facilitates a separate system for noncredit workforce education that is funded through self- generated revenue.

As researcher it was important for me to approach this research topic separate from that as college leader of an institution within the LCTCS. This provided an initial challenge for me to address bias. This challenge was overcome by utilizing triangulation methods and facilitating

peer review of findings to ensure accuracy of data transcription and consistency in emerging themes. Transcripts were also provided to those interviewed to ensure accuracy of transcription. Noncredit workforce education research as presented in the literature review coupled with existing programmatic issues facing college administrators in Louisiana's community and technical colleges contributed to the design of the interviews. My role was to document actual accounts of participants without personal bias.

Gaining Entry

After receiving permission from gatekeepers at the Louisiana Community and Technical College System's Office, I provided each participant with an introductory letter and a formal consent form (Appendix A) to be completed outlining the purpose and procedures of the study. Also included in the consent form was a statement for protection of confidentiality and appropriate signatures. To begin the research study, I contacted the college Chancellors and Regional Directors and informed them of the purpose of the study and my request for their participation. A letter of introduction and cause for research (Appendix B) was submitted in writing to define the scope of research and gain access to the college. A campus visit was conducted at each institution and consisted of individual interviews of Chancellors, Regional Directors, and Chief Workforce Development Officers.

After gaining entry, each participant was interviewed using an individual interview designed with open-ended questions (Appendix D). The purpose of the interview was to develop an understanding of the issues related to the implementation of noncredit workforce training from the perspective of the college leader. I was also provided a tour of the college and was able to identify the locations of workforce development divisions in proximity to student services and administration departments. Additionally, feedback from college leaders assisted in developing a

comparison of the leader's perspective and that of the workforce development directors at each college.

Collection of Data

Information gathering techniques included an evaluation of each college website, an understanding of current organizational structures, identification of positioning of noncredit workforce education within each college, and data requests and analysis of noncredit education activity via student information systems. Evaluating college websites provided a rich perspective of how the college views what is most important based on structure of website design. This allowed me to navigate each website in search of noncredit education information and compare and contrast similarities and discoveries resulting from the process. A review of current organizational structures provided a visual representation of noncredit workforce education within each college. This facilitated an understanding of how each college approaches the delivery of noncredit workforce education and utilizes conventional or unconventional methods to implement workforce development strategies. In addition, physical location maps provided an understanding of how the location of noncredit workforce education delivery is approached by each college and what impact location has related to organizational structure. Finally, a noncredit education enrollment query of each college's student information system provided a real-time snapshot of activity for comparison. These research approaches also positioned the cases in the larger context of college culture.

Document analysis of campus maps illustrated physical locations of workforce development divisions. Each college has dedicated space for workforce development divisions. These divisions are located in various departments within participating colleges. Locations of workforce development divisions at two participating colleges position the divisions in close

proximity to administration and academic affairs divisions. One college has located the workforce development division on the first floor of a health science building while another has dedicated a facility located on the main campus to workforce development. Document analysis was used as the first method of data collection and provided important information capturing unique characteristics by institution as well as common themes among institutions related to decision making by college leaders and linking these decisions to structuring of the organization.

Interviews of CEOs and workforce development officers were conducted as a second qualitative data gathering method to secure essential information for the collective case study. Qualitative open-ended semi-structured interviews were transcribed and subject to first and second level coding to identify themes and patterns compared by participant. According to Creswell (2002) advantages to interviews include useful information by participants and an opportunity for the interviewer to have control and focus over questions as opposed to observation techniques. Disadvantages include unpredictable events such as technical difficulties with recording interviews, interruptions during the interview, influence of researcher yielding prepared responses by the participant rather than candid responses and difficulties associated with full participation by interviewees. A variation of feeling, knowledge, and sensory questions were used to elicit feedback relative to noncredit education. Feeling questions were associated with those experiences tied to participants relative to the issue at hand while knowledge questions are centered on facts and an assessment of knowing by the participant. Sensory questions were centered on what participants see and feel as they experience noncredit education activities at the college (Patton, 2002).

The first individual interview was with the college leader in his/her administrative office. The atmosphere and the tone of the interaction were professional. Interview questions were

asked to acquire necessary data to determine the culture of the organization. At the conclusion of the interview process, the college leader and I discussed next steps and timelines of the research process. In addition, benefits of the study and future considerations were reviewed.

The second phase in the research design consisted of interviews conducted with workforce development officers in his or her administrative office. It was critical for an initial observation to be conducted to aid in the understanding of how noncredit workforce training students enter the division, are served by staff, and how the division engages with business and industry. This fundamental understanding played a critical role when conducting within-case analysis by using field notes taken at each college. Interviews of the workforce development director consisting of open ended questions related to the structure and organization of the workforce development division were then conducted. At the conclusion of the interviews, next steps and future considerations of the study were discussed and a timeline for the completion of the study provided to the workforce development directors.

Careful planning of interview dates allowed for a research setting conducive to soliciting information critical to the study. Interviews were conducted during scheduled times to minimize distractions. Transcription by the researcher allowed for careful accounting of interview responses. Field notes also accounted for observations during the process of answering questions. First and second level coding supported a within-case analysis that will determine consistent themes and patterns that may emerge in the research process.

According to Patton (2002) successful capturing and analysis of qualitative data, if effective, will take the reader to the experience and immerse him or her in the observation as if they were present. Throughout the observation and interview process, documents were identified relevant to noncredit workforce education as external variables for consideration. Additional

documents included but were not limited to annual reports, promotional brochures, organizational charts, strategic plans and videos. These additional documents aided in the process of enhancing the results and success of observations and interviews and provided a foundation for determining the comprehensive data gathering approach to ensure adequate data for careful analysis of the issue.

Data Analysis

Patton (2002) suggests multiple approaches to organizing and reporting data. Examples include the organization of data into categories such as chronology, people, critical incidents, and processes. Common case study approaches include studying individuals as units of analysis, identifying 'critical incidents' that construct or frame an issue and finally the role of 'setting' in this case as the college campus. Understanding that analysis of data associated with a qualitative collective case study can appear monumental, focusing on the organization of data served as a critical first step. I personally transcribed interviews and typed field notes to ensure immersion within the data. This aided in preventing gaps in recalling the actual interview experience. Case studies as recommended by Patton, provided instruments used to account for raw 'case data', organize a 'case record' as a brief concise accounting of the organization of data, and author a 'final case study narrative' that represented a chronological accounting of the collection of data from beginning to end. This qualitative method also provided the reader with an understanding of the purpose and significance of the case study data gathering process.

Upon the completion of interviews, notes were transcribed and coding completed to identify themes. By doing so, further need to identify follow-up questions was determined. Qualitative methods of data interpretation and analysis such as data displays allowed me to

reduce the data and create visual displays and/or narrative analysis that were instrumental in developing patterns and identifying emerging themes within the body of research.

Within-case analysis was also conducted by designing conceptually ordered displays, context charts, and time ordered displays as deemed necessary depending on the depth of the data provided by the participants. Common themes and patterns were identified and documented in the raw data and transcription of interviews. Patterns and themes were identified between institutions with high noncredit participation versus institutions with low noncredit participation, identification by type of organizational structure, and determination if there was a need for further study.

Interpretation of Data

When interpreting the data for this study and accounting for the potential of conflicting evidence, understanding of inductive and deductive analysis was essential in initiating the interpretation of data. "Inductive analysis involves discovering patterns, themes, and categories in one's data. Findings emerge out of the data, through the analyst's interactions with the data, in contrast to deductive analysis where the data are analyzed according to an existing framework" (Patton, 2002, p. 453). Inductive analysis identified a common coding structure to illustrate the nature of relationships, attitudes, and the impact of noncredit workforce training education on the college. Analysis of themes was then utilized to carefully identify strategies to seek additional data, to fill gaps, and to verify findings. Next, themes and patterns identified within the research were assessed for accurate reflection of the reality of the population who participated in the survey. This process was completed through a within-case analysis.

Within-case analysis began with raw data collected from field work followed by first and second level coding of transcripted interviews. The results of this analysis led to illustrative

displays such as context charts where common influences discovered in the interview process were accounted for and compared among institutions. Upon completion of a context chart, additional conceptually ordered displays were utilized to effectively draw conclusions utilizing raw data from interviews. An event flow matrix was also beneficial where a series of events or actions by college leaders in the decision making process were identified and told the story of the design of current organizational structures. Data illustrations provided insight into existing workforce development strategies among participating colleges.

Due to the lack of relevant research on noncredit workforce education on Louisiana's community and technical colleges, results were compared with national findings identified in the review of literature and conclusions drawn regarding the impact of decision making by college leaders and organizational structures on noncredit workforce training education in Louisiana's community and technical colleges.

Member checking and triangulation was used to ensure validity of findings within this study. Triangulation consisted of utilizing multiple types of information such as evaluation of strategic plans, organizational charts, and relevant publications confirming what has been recorded to include multiple uses of data including interviews and observations in addition to field notes and additional documents. An analysis consisting of comparisons and contrasts associated with types of information collected ensured a consistent method of gathering and reporting data. Member checking provided an opportunity for participants in the study to review findings and determine if the results accurately represent what the participant experienced during the interview process. According to Creswell (2002) participants can verify if 'themes' and 'interpretations' are accurate. An additional measure of validity can include the use of external audit where an outside evaluator reviews the process and provides assurances that data collection

methods and analysis are consistent and valid. Once validity was established, it was important to identify strategies to ensure reliability.

Utilizing criteria by Lincoln and Guba (1985) I determined trustworthiness of data and findings by examining four criteria: credibility, confirmability, transferability, and dependability. Credibility was established via trustworthiness of data. To achieve trustworthy data, each interview was recorded, transcribed, and coded to effectively account for accuracy of participant responses. Participants were provided a copy of the transcript to ensure accuracy. Confirmability was achieved through "peer debriefing" as described by Flick (2002). To support this process, identification of individuals not associated with the research project yet familiar with the issue under study were asked to review findings and ensure there are no gaps in the securing of essential data. Strict adherence to interview and observation protocol provided for increased transferability. Since four institutions were studied, every effort was made to account for consistency in interviews and interpretation of data coupled with the framework for trustworthiness provided by Lincoln and Guba provided measures that work to limit bias and account for transferability and dependability.

Summary

Chapter three provides an overview of the qualitative research methodology that was used to conduct a case study. The study was designed to identify implications of organizational structures impacting noncredit education and the effects on determining workforce development strategies in Louisiana's Community and Technical Colleges. In conclusion, this chapter provided an overview of the methodology, qualitative design, research setting, and data analysis used in interpretation of data.

Chapter 4 Findings

The purpose of this study was to investigate organizational structures used by college leaders to make decisions affecting noncredit education and how these decisions impact workforce development strategies in Louisiana's community and technical colleges. A collective case study was conducted inclusive of a purposeful sample of four community and technical colleges in the Louisiana Community and Technical College System with diverse noncredit course offerings and varying levels of noncredit enrollment. This chapter will describe the findings of the qualitative study conducted with four community and technical colleges and will demonstrate themes associated with relationships impacting noncredit education, the role of structure in noncredit education, and institutional conflict as colleges identify and address the needs of stakeholders. This information was gathered by interviews conducted at each participating college with the college leader (CEO) and workforce development officer (WDO). In addition, site visits, document analysis, and field notes contributed to the comprehensive analysis of information gathered during the course of this study.

Workforce development divisions in Louisiana's Community and Technical Colleges currently serve as the nexus between credit and noncredit workforce training. These divisions function as an avenue for noncredit enrollment and facilitator between the college and business and industry when identifying noncredit education needs. Noncredit workforce education strategies and the impact of organizational structure and decision making by college leaders has never been studied in LCTCS colleges. Current for-credit formula funding mechanisms leave college CEOs and workforce development officers in a position of uncertainty when determining sustainable strategies for delivering noncredit workforce education. This collective case study provides an in-depth review of participant colleges' organizational structures and decision

making practices. This study is designed to review and analyze existing structures and processes supporting noncredit workforce education and identify policy recommendations that will suggest long-term solutions for supporting noncredit education in Louisiana's community and technical colleges.

The primary research question under study was: How do college leaders make decisions on college organizational structures to address noncredit workforce education? Subsequent questions included: 1) how does existing state policy on formula funding impact noncredit workforce education strategies within colleges? 2) how are noncredit workforce education divisions organized within colleges? 3) how do college leaders reconcile workforce training demand with existing organizational structures and current funding policy for higher education institutions?

For the purposes of this study, two community colleges, one technical college, and one technical community college participated in the study. Each college has been identified by number to ensure confidentiality. The colleges in the study are designated as College 1, College 2, College 3, and College 4. In addition, each college leader (CEO) and workforce development officer (WDO) has been associated by the college number designated in the interview process. Of the four college CEOs, three were male and one was female. Of the five college workforce development officers, three were male and two were female. It is important to note that five workforce development officers were interviewed due to a college reorganization that took place during the design of this study.

Demographic Data on Study Participants				
Participant	College	Gender	Age	Institutional Type
WDO 1	College 1	Μ	50/60	Technical Community College
CEO 1	College 1	F	40/50	Technical Community College
WDO 2	College 2	Μ	40/50	Technical College
CEO 2	College 2	Μ	50/60	Technical College
WDO 3	College 3	Μ	50/60	Community College
WDO 3.1	College 3	F	40/50	Technical College
CEO 3	College 3	Μ	40/50	Community College
WDO 4	College 4	F	30/40	Community College
CEO 4	College 4	Μ	40/50	Community College

Table 3

During the conduct of the study, College 3 experienced a leadership change. The CEO of the community college with the designated title of Chancellor assumed the leadership role of the technical college in addition to the community college. For the purposes of the study, the current CEO was interviewed in addition to the workforce development officers at the community and technical colleges referred to as (WDO 3, WDO 3.1).

Participant interviews have been conducted, transcribed, coded, and analyzed to identify common themes and findings. The findings will be presented in relation to interview questions and will be analyzed for each question. Initial findings result from responses by college leaders and workforce development officers to interview questions. The results of the analysis will be provided within this chapter.

Identification of Themes

Interviews with CEOs and workforce development officers have provided rich data to be analyzed to determine common themes and unique characteristics. Data are presented based on questions and responses by college CEOs and workforce development officers categorized by the following themes: relationships as a means to establishing credibility, decentralized structure as a characteristic of noncredit education, and institutional conflict in meeting the needs of

stakeholders. Natural data presentations and data illustrations will serve as the qualitative method for disseminating and communicating information through broad categories.

Relationships as a Means of Establishing Credibility

Noncredit education does not exist in a vacuum. In accordance with the delivery of noncredit education, relationships must be developed and nurtured to meet the needs of the colleges' constituents. These relationships occur at varying levels and impact organizations differently.

At the college level. College 2 CEO 2 is very clear when describing the role of each campus administrator when it comes to organizational structure and relationships.

We have a workforce development person over the region. However, I look at each campus administrator as workforce development. They are in the communities and responsible for meeting the workforce training needs of their specific community.

CEO 2 further stated that it is the expectation that each campus administrator negotiates relationships with business and industry. College 2 has no clear division established with the single role of developing and delivering noncredit workforce development strategies.

Additional structural positions within the workforce development division in College 2 include a Coordinator and a Program Coordinator. The Coordinator is the sole person responsible for all workforce development activities of the college and the Program Coordinator manages campus initiatives tying local relationships to business and industry. While College 3 WDO 3.1 suggested that a change in structure is on the horizon, she also indicated that collaboration is common and the group works together to execute workforce development strategies that benefit the college as a whole.

Challenges expressed by workforce development officers when identifying the role of relationships at the college center on how the college views the activities of workforce development divisions. WDO 3 indicated that balancing the relationship between credit and noncredit workforce training is pitting structured and non-structured environments against one another:

You know, most of education is very structured. Workforce is not nearly as structured. It's fluid. It's very dynamic. It moves according to what the needs are. We've always been kind of aside to the regular college.

The support of various divisions within the college related to credit and noncredit workforce education is an important consideration when determining the impact of organizational structure on workforce development strategies. The reporting relationships between workforce divisions and administration are important to consider when determining how credit and noncredit activities are managed by the college. Reporting roles vary by institution as illustrated in Table 4. Table 4

Illustration of	Role and Repo	orting Structure	of Workforce De	evelopment Divisions

College 1	Vice Chancellor of Economic Development (WDO 1)	Reports to	CEO 1
College 2	Workforce Development Coordinator/Campus Administrator (WDO 2)	Reports to	CEO 2
College 3	Dean of Workforce Development (WDO 3)	Reports to	Vice Chancellor for Academics
College 3	Dean of Special Programs in Workforce Development (WDO 3.1)	Reports to	College Dean
College 4	Dean of Workforce Development and Continuing Education (WDO 4)	Reports to	Vice Chancellor of Administration

Colleges participating in the study identified varying ways of managing relationships between the noncredit workforce division and the academic division. For example, according to WDO 4, students can take noncredit courses in a credit program at a reduced price. They will not get academic credit for the course. Van Noy, et al. (2008) considers this activity "migration" between credit and noncredit education enrollment and further suggests that it is an emerging trend among colleges today. This practice has proven beneficial for current student recruitment efforts among colleges. College 4 represented the only college in the collective case study currently participating in this process.

College 3 and College 4 CEOs referenced recent organizational changes that support collaboration between departments. CEO 3 specifically indicated that if there was a weakness in the current organizational structure, it would be the communication within departments. CEO 3 College 3 suggested that one of the reasons for this challenge is because noncredit students are perceived by faculty as having less need than credit students. Better collaboration between student services for career counseling and job placement is under consideration as part of a new strategic plan for the college.

A newly established Planning Council at College 4 has provided an organizational change in the area of strengthened collaboration between departments supportive of noncredit workforce education.

The workforce development division was completely separate. Um... and isolated. Over the last two years we have pushed to change that by including people in the workforce and continuing education division in general college activities. Um... placement on committees. The development of cross functional teams to meet certain needs. We're revamping our... we have a planning council that was made up of all directors and above on campus. Non-academic. So we are

changing that to have a governing mission that heavily emphasizes workforce and economic development and responsiveness to the market.

Student services, finance, and administration were the three common divisions referenced by participants as critical in supporting noncredit workforce divisions. The participation of each division in noncredit education has provided college leaders benefits and challenges in managing relationships because of existing structures that were not originally designed for noncredit education delivery.

At the administrative level. Unintended consequences of increased noncredit workforce education acknowledged by workforce development officers include changes in college culture, awareness of the role and scope of noncredit training by credit faculty, and management of financial structures that support alternative business models. WDO 3.1 touched on the role of college culture and the impact of workforce development activities on the financial structure of the college. She stated that when she first arrived at the college, she suggested that the workforce development division operate as a "financial enterprise" for the college. She light heartedly stated "I thought the college financial officer was going to have a heart attack when I said that. She told me oh no... we can't do that." WDO 3.1 further suggested that challenges associated with existing financial policy and procedures established for credit courses creates barriers when serving noncredit students since their needs were never considered in the original process of policy creation. This barrier impacts the credibility of the division as workforce development officers manage conflicting policies that do not meet the needs of noncredit students and stakeholders. Based on interview responses, it is clear that relationships play an important role in the business of noncredit education and the successful execution of workforce development strategies.

Understanding the benefits and challenges associated with the role of noncredit education is increasingly important as organizational structures continue to evolve among case study colleges. Common challenges include lack of communication between the system office and colleges to support workforce training efforts and a need for funding for an adequate infrastructure for growing noncredit education. CEOs reported that they are revisiting organizational structures to accommodate a changing business model as a result of the recent financial crisis.

At the business and industry level. CEO 2 shared that while proactive in securing important business and industry partnerships, more could be done with adequate resources and support from state higher education systems. Efforts to quickly identify needs would be of direct benefit and better serve business and industry partners. CEO 3 touched on reputation as an important factor when determining effectiveness in meeting the needs of business and industry. He identified the reputation of his Dean of Workforce Development as a driving force in securing credibility with business and industry. He suggested that the Dean of Workforce Development has worked collectively with the college and business and industry to create a business culture that is flexible and student centered. He also stated that additional resources would only enhance the reputation of the college in the region. College culture plays a critical role in the ability of a college to respond to the needs of business and industry and build credibility among stakeholders according to College 4 CEO 4.

I think you will find in this region when people think of workforce and economic development, College 4 is first and foremost in their minds, because we've instilled a culture of responsiveness to market.

This sentiment was also commonly acknowledged by all participating colleges. Reputation and

credibility by the colleges in the eyes of business and industry is overall very positive as

evidenced in Table 5.

Table 5

Responses to Interview Question: What impact does the workforce development division have on the college?

Positive Impact	Data Illustration
College Reputation	"Most of the reputation of my college is a direct result of the workforce development division."
	"The Newspaper refers to us as the hub for workforce development in the region."
Community Awareness	"Connective tissue within the community."
	"Workforce development is a great way to build relationships we are the Ambassadors."
Financial Support	"We also bring money to the school."
	"Workforce development is a good revenue generator to provide the college with other things it normally would not get through the credit side."

Themes – Data Illustrations by Workforce Development Officers

A common challenge expressed by CEOs centered on frustration with the inability to receive adequate resources to respond in a proactive measure to better serve business and industry. This finding is critical when looking at the value of relationships, credibility, and the impact of the college structure on the execution of workforce development strategies.

Additional considerations impacting relationships include professional expertise to continue relationship building with communities and businesses necessary for noncredit education program expansion. WDO 1 expressed concerns related to his pending retirement and anxiety over who will replace him.

To be in the workforce development business, takes certain skills that don't necessarily equate to academics. To be able to find people who understand economic and workforce development and academic training education, that sort of thinking, that they can talk both sides intelligently and bridge both sides... we don't have a training ground to find those people.

College CEO 3 also expressed similar concerns when he graciously acknowledged that the reputation of the college is a direct result in many cases to the reputation of his Dean of Workforce Development and his past history of working with business and industry. While the value of relationships are crucial to the role of noncredit education supporting business and industry, organizational design can also impact the success or direction of noncredit education. *Decentralized Structure as a Characteristic of Noncredit Education*

Throughout the interviews of college CEOs, several references to lack of human resources, changes in organizational structure, and limited funding are changing the dynamics of the delivery of noncredit education. A unique challenge was presented by CEO 4 related to organizational structures at the local and state level.

A lot of the conversation in BR is state centered. While these divisions aren't solving an aggregate state problem; they're serving local and regional economies. We can get caught up in the state discussion far too much and if we're not delivering and servicing in the community level, it doesn't matter. It is all for naught.

CEO 4 identifies the struggle between local colleges serving local needs while balancing statewide initiatives that are different and require a unique set of resources. The delivery of noncredit education according to participants presents a variety of considerations when

addressing workforce needs. As the college examines a centralized or decentralized approach to

the administration of noncredit education, both benefits and challenges must be considered.

Table 6 illustrates the benefits and challenges expressed by participants with regard to noncredit

workforce training programs.

Table 6

Responses to Interview Question: What are the benefits and challenges of providing noncredit workforce training programs to the college? Themes – Benefits and Challenges by College Leaders

Benefits	Challenges
Less bureaucracy associated with the	Limited resources for research and
curriculum development process	development
Flexible scheduling	Limited human resources
Business and industry relationships	Giving noncredit education value
Credibility with community	Being nimble enough to respond quickly
Contributions from industry	Competition with proprietary providers
Avenue for industry to enter the college	Bridging academic and noncredit

WDO 3.1 suggested a different structure is in place for the coordination of workforce development activities at the technical college. She identified the structure as "loose" and different people participate in workforce development at different levels.

As I see it, the workforce division structure is quite loose in the sense that I am

viewed as the workforce person for the college, however we have a couple of

other people who work with me but do not report to me.

According to WDO 3.1, this structure can cause confusion when collaborating with multiple

campuses within the college. The coordination of effort is not centralized and careful

negotiations between WDO 3.1 and campus leaders create additional leg work when executing

noncredit workforce development strategies.

WDO 4 presented the most structured organizational framework that included multiple positions and roles dedicated to workforce and continuing education. She described her role as Dean of Workforce Development and Continuing Education and as the primary leader responsible for supervision of four programs with staff that report directly to her. The programs are continuing education, workplace literacy, "drop back", and practice management. Each program was described during the interview process as having a coordinator responsible for day to day management of the programs. WDO 4 also presented information relative to multiple grants that support noncredit workforce education.

Each college participating in the study reported varying organizational structures in addition to perspectives guiding decision making practices related to noncredit workforce education. Based on the results of the interviews, it is evident that noncredit workforce education plays an important role within each college, but is represented differently through varying organizational structures. Of particular importance, three of the colleges reported separate structures supporting workforce development units or divisions. Only one college reported a unique structure where accountability for noncredit workforce training rests with multiple campus leaders and is facilitated by a workforce development coordinator who also carries a campus administration role.

College 1 CEO 1 identified the structure of the delivery of noncredit workforce education at her college as "critical." The workforce division was presented as a "Unit" that reports directly to the Chancellor. She identified separate business practices supportive of noncredit education. The workforce development division is guided by flexibility in meeting business and industry needs. Because of its revenue generating potential, the noncredit workforce training programs are developed in a unique unstructured manner unlike credit bearing programs.

College 1 Workforce Development Officer 1 (WDO 1) identified organizational structures of the division in relation to the overall college structure as a "unit" or "division."

The way I feel about it and the way we run things is from the bottom up. To me, everybody in the system is in workforce development. It starts with the instructors. The instructors are primary, they have the advisory committee meetings at least twice a year.

WDO 1 further indicated that the flexibility of faculty to teach within both credit and noncredit programs adds value to the college in meeting the needs of business and industry. However, he suggests that varying business practices between the credit and noncredit divisions can create confusion at times as the structures supporting business and student affairs practices differ.

College 3 CEO 3 described noncredit instruction as a critical "leg of a stool." "When making decisions organizationally, workforce training is always at the forefront of our thought process." CEO 3 discussed the role of policy in decision making and structuring the organization. He described the current organizational structure, and the role of the Director of Workforce Training who also sits as an active member of the college "planning council." The planning council is made of the Chancellor's leadership team members. The Chancellor sees the role of the Director of Workforce Development as a member of the Planning Council as critical. "When we think or plan strategically, workforce development is one of the central points' we spend time talking about." It is important to note that during the interview, CEO 3 stated that the organizational structure of College 3 is changing and the Director of Workforce Development who currently reports to the Vice Chancellor of Academics may report directly to the Chancellor in the future.

The colleges under study represented consistent factors that evaluate the intended and unintended consequences of centralized or decentralized organizational structures. These structures are related to the process of transitioning noncredit courses to credit, running noncredit divisions as profit centers, and providing general fund resources to fund a portion if not all of the staffing associated with noncredit workforce divisions, thereby, increasing dependency on business and industry for donations of equipment. An important factor that emerged within participant interviews is the role that for-credit formula funding plays in determining structures that impact workforce development strategies for the colleges.

Technical and community colleges in Louisiana are funded by a for-credit formula funding mechanism. Funding models represent a structural component of the organization. These models provided State General Fund dollars to each college for programmatic and departmental planning. Organizational structures are a result of decision making practices by college leaders that reflect funding priorities for each college. As part of the study, college CEOs were asked to respond how their decision making practices in structuring noncredit workforce education may be different if they had access to noncredit formula funding. Consistencies emerged related to institutional behaviors as a direct result of the structure of the current formula.

When interviewing College 1 CEO 1, there was a clear desire to have a formula funding mechanism for noncredit education. It was quickly noted that if the college were to be true to its mission, then it is mission critical that funding supports both credit and noncredit training. Coupled with the desire for noncredit formula funding, it was noted by CEO 1 that in current tough financial times, additional funding may be critical to sustain the college, when he said:

I think that we probably work a lot harder to try to make sure that we are doing a lot more because we know that at the end of the day there's a financial

benefit. I hate to think of it that way, and these days and times with the challenges we are facing with budget, I think it would be great if we could get funding for the noncredit sector.

Considerations associated with noncredit workforce education formula funding include important decision making factors such as enhanced resources dedicated to building infrastructure, better ability to meet the true mission of the college, and sustainability of future noncredit activities. College CEOs in general expressed concern that formula funding would need to be in addition to existing for-credit formula funding. Each expressed concerns over "robbing Peter to pay Paul." In order to understand the potential of enhanced funding for noncredit education, it is important to identify the existing decision making practices related to organizational structure to determine the current state of noncredit workforce education in Louisiana's Community and Technical Colleges.

It is important to discover how the existing formula funding structure impacts decision making at the college. College 1 CEO 1 quickly expressed frustration with the formula funding process. Of specific concern is the lack of transparency in determining how the formula is calculated. Due to the frustration and confusion surrounding the formula, CEO 1 suggested that the current formula funding model does not control decision making practices to a great extent.

I am not sure that there's a lot of clarity about just how the formula works. So right now, the way that I understand the formula is forever on my mind and impacts my decision to some extent, but I haven't really sat down and said... Ok... because I know that I am going to be funded more for this, this is where we are going to go and here is the reason why.

CEO 1 went on to discuss that her college is transitioning from a technical college to a technical community college and that due to the transformation, there are multiple variables outside of the existing formula funding model that touch the decision making process tied to organizational structure.

College 4 CEO 4 suggested that the current funding model is a "secondary" or "tertiary" criterion for decision making. Decisions are made at College 4 based on outcomes associated with improving life for students and increasing the quantity and quality of workers. He suggested that to the extent that the formula funding model supports that effort... "That's Great!"

College 2 CEO 2 did not hesitate when responding to the question centered on how current formula policy impacts decision making and structuring the college. CEO 2 suggested a common response as did CEO 1 that the college frequently engages in a predictable manner. "What you do is you try to make everything credit because there is no benefit to noncredit. I think that is a travesty." This response illustrates the struggle of colleges to fit noncredit education into a for-credit structure leading to challenges associated with sustaining programs and funding noncredit workforce training divisions.

In College 3, noncredit workforce education positions are accounted for via the general fund according to CEO 3.

I think we obviously take workforce training into account when we're apportioning dollars from our budget. You know, we have positions that are supported through it, we have equipment that is purchased through it, we recognize particularly with the kind of workforce training we are doing now in P-Tech and Advanced Manufacturing.

CEO 3 went on to discuss the BP Horizon Oil Spill recovery training that took place in spring 2010. He tells the story of making a quick decision to send his Dean of Workforce Development to Mandeville, LA for a one day training. The Dean asked what would happen with the revenue generated from the training and the Chancellor responded it would go to the workforce division in a restricted fund. The Chancellor emphasized that ideally, the workforce development division would serve as a profit center for the college. This experience suggests that colleges are structuring business models to accommodate revenue generating practices provided by workforce divisions to develop measures of sustainability.

College CEOs indicated that organizational structures are changing due to changing budgetary landscapes. Due to limited resources, college CEOs suggested that the current organizational structures are limited in meeting the needs of business and industry. CEO 1 suggested that the current organizational structure does not provide enough support to deliver adequate services to meet the needs of business and industry.

The role of decentralized structures impacting noncredit education was discussed by college CEOs as it relates to organizational structure and support of workforce development strategies. The variance in alignment between departments in the colleges and the System's Office were significant. For example, CEO 1 College 1 discussed realistic expectations by the System's Office of community and technical colleges. CEO 1 also shared confusion centered on the fact that while colleges and the systems office are working on common goals and strategies such as workforce training, advancement, expanded on-line learning opportunities, and the implementation of a new student information system, the Systems Office has an organizational structure in place to support each function, while local colleges do not. In addition, CEO 1 suggested that while all expectations are the same, all colleges are not created equally.

Institutional Conflict in Meeting the Needs of Stakeholders

Conflicts associated with noncredit workforce education are common among colleges participating in this collective case study. Sustainability of noncredit education by participating colleges is increasingly dependent upon revenue generation. All participating colleges provide some source of funding outside of revenue generation to support and sustain workforce development divisions. This trend is common due to the institutional need for infrastructure development that cannot be sustained on revenue generated by noncredit education alone.

> Our System as a whole is woefully short on building infrastructure from within. Resources are always a question because we have seen our State become more challenged to be able to bring resources to the table and this is also true for our business community as well. (WDO 1, College 1)

In addition to the struggle of aligning departments within colleges and the systems office to accomplish common goals for noncredit education, challenges also exist in meeting the needs of students. For example, CEO 3 declared: "Now obviously we need to do a better job. I mean, we need to be providing the same sort of job placement support and all that stuff for noncredit folks that we do for credit folks." This declaration touches on the unique needs of noncredit education students and how existing student support structures designed for credit education can be re-evaluated to determine relevance for noncredit education students. One example is the process for how noncredit students are enrolled within participating colleges.

College 1 and College 3 use unique enrollment applications that register students by course. Each workforce development officer suggested that enrollment by course allows for greater flexibility and transferability of noncredit courses earned by each student. WDO 3 suggested frustration when working within the current student information system. He identified

the current system as very "manual" and entering data is only a priority when time permits. It is important to note that all credit student enrollments are required to be reported by specified enrollment census dates by college. WDO 3.1 identified this structure as a hindrance when accessing staff support for entering noncredit applications.

I did not have any help. So yes, applications sat in a file and I said... there's the file... laughter...so until we generated funds for me to support a staff person, now I have someone to help.

This example represents the conflict between noncredit and credit education divisions. Credit enrollments are of greater priority as they directly tie to the formula funding model for the college. However, noncredit enrollments are reported for different purposes not associated with formula funding, therefore, student applications are not entered until self-generated revenues support staff to assist with entering student applications.

WDO 1 further indicated that noncredit student enrollments do not demand the type of indepth information necessary within the application process than credit enrollments. While WDO 3 agreed with WDO 1, he expressed concern regarding recent trends of blending credit and noncredit students within the same courses. WDO 4 classified this type of activity as "dual enrollment."

> But also, we have recently expanded to where we work with academics to run dual enrollment, what we call dual enrollment, which is just the term we use here on campus, because I know dual enrollment in the system has an entirely different meaning. But we will offer the same courses noncredit that academic offers.

WDO 4 suggests that tracking student outcomes and managing a student information system that is customer friendly must remain a priority. She went on to state that the current student information system is not user friendly and does not provide relevant data to track student outcomes and transcript noncredit courses. As a result, CEO 4 supported the purchase of a separate student information system for tracking noncredit enrollment.

Tracking noncredit enrollment at colleges participating in this study appears to vary based on current student information systems. Only one of the participating colleges has purchased a student information system specifically designed to support noncredit education for the colleges. The remaining colleges are utilizing existing student information systems and have identified ways to modify applications for greater ease and flexibility in the enrollment process. As noncredit students are tracked, college CEOs and workforce development officers are identifying enrollment trends that suggest additional emphasis needs to be placed on tracking students and expanding opportunities for identifying additional student needs that can be met by the college.

WDO 4 indicates that College 4 purchased a unique and separate software system for tracking noncredit education students for the college. The system was purchased in fall 2010 for the primary purpose of expanding flexibility and easier navigation tools to support and encourage continued noncredit education enrollment growth. "It's outstanding! It has the shopping cart feature. You know. It's great for students."

WDO 4 expressed frustration with the current implementation of the new student information system to be used by all colleges within the community and technical college system. She suggested that there are very important elements such as the 'shopping cart' feature that were not purchased and will continue a current cumbersome enrollment process. She stated

that her college could not wait until the end of an implementation to determine if the new system will work or not. Therefore, the purchase of an individual system was necessary to grow noncredit enrollment. This challenge represents conflict between local institutional needs and a system initiative that will require all credit and noncredit enrollments are tracked within the same system.

Technical and community colleges in Louisiana share missions tied to addressing student's needs in the areas of workforce training. Colleges function to serve the needs of business and industry in addition to filling skills gaps in workforce development and strengthening Louisiana's economy. College 2 CEO 2 reported that noncredit funding would not only be critical to growing noncredit enrollments, but it would also make it easier to meet the needs of business and industry. CEO 2 suggested that the majority of noncredit program success is directly related to business and industry partnerships. He stated that current negotiations with business and industry are tough due to limited state resources to leverage in the negotiation process.

Now when it comes to cost, in many cases you will see differences primarily because a lot of industries want to donate materials and supplies for the training. So let's say you establish a cost of ten dollars per hour. That's fine to offer the training, however if you have an industry donating \$5,000 in supplies then you don't charge them the same ten dollars.

He further suggested that industry does not understand the perception of value for credit over noncredit. "As far as I am concerned, all education has value and you devalue it when you say it's noncredit. What is of value to an industry is of no value to a higher education institution?" The conflict of value presented by CEO 2 addresses the role of noncredit education in meeting

the mission of the college by serving business and industry needs, yet lack of support for funding noncredit education activities via a formula funding model suggests that noncredit is of little value therefore creating confusion between colleges and stakeholders. This finding is particularly important as it brings forth an issue that has not been presented by the other three colleges and will be revisited in determining future considerations for the study.

The role of business and industry is critical to the success of noncredit workforce divisions as evidenced by college leaders during the interview. Determining how existing college organizational structures meet the needs of business and industry is necessary to identify considerations for expanding noncredit divisions and influencing changes in organizational structure. Important elements in supporting and expanding noncredit education divisions include business oriented practices within divisions that compliment organizational structures and external agencies such as state and system offices.

College 2 CEO 2 identified advantages of current organizational structures supportive of workforce development strategies. He indicated that multiple locations over a large geographic region provide great resources to address business and industry needs. "You're developing partnerships. You become part of the community." College 3 CEO 3 discussed the significance of planned strategies to support noncredit workforce training. He specifically discussed the creation of the Advanced Technology Center.

It was very deliberate. We started out with that idea in mind that we needed an advanced technology center that could be designed in such a way that you've got ready use space for business and industry training.

He also suggested that future collaborations with economic and workforce development agencies co-housed at the facility will only strengthen the colleges' ability to better execute workforce

development strategies for the college. College 4 CEO 4 indicated that the recent financial crisis only fueled the colleges' desire to focus on the success of implementing workforce development strategies. He discussed the culture and language accepted by all faculty of the college and its importance in supporting workforce training.

The onus of the financial crisis provided a perfect context to rapidly instill that culture. Right? If it was that we were in boom times and everything was great and I told Liberal Arts faculty that ... hey you guys... you are really workforce development, they would have been like well... ok? But when you are faced with the cliff we are faced with and you were going to have mass layoffs and the only way this institution could survive is to grow and respond to the needs of regional economy. Wow! All of a sudden a lot of people are nodding heads and agreeing.

This changing culture among credit faculty provides additional avenues for noncredit course delivery in meeting the needs of business and industry and serving the mission of the college. When describing the significance of rapidly responding to the needs of business and industry, WDO 2 identified the role of noncredit education in the recent explosion of the British Petroleum Horizon:

> The Horizon explosion put even more emphasis on noncredit type shortterm training and a more frequent training cycle for marine oil and gas people. So

it's just going to increase down here. It will even get more demanding on our part. WDO 2 also identified the value of noncredit education in serving a niche area as it relates to the oil and gas industry. WDO 3 indicated that this trend is also evident at his college and current workforce development strategies through noncredit education center on identification of additional niche areas that are not currently served by higher education.

Each region is different. So it needs to be customized. It's like any business. You have to have your niche market recognized from the system level so that whatever resources are available whether in support, intelligence, capitol, equipment, whether it's in funding, whatever... it recognizes the need of a region separately from another.

The conflict associated with increasing demand for noncredit in a for-credit business model presented by colleges participating in the study is balanced by additional resources provided by credit programs. The role of noncredit education ironically has been heavily impacted by the role of credit education according to WDO 3.1:

I think in some areas we should create opportunities with a combination of credit and noncredit to really meet an industry need. Because then you can take those incumbent workers that need it quickly that might have a degree already so getting a secondary degree is not a real value but getting a credential is. But along the line someone may need that degree. So we have to figure out how to blend the two.

Workforce development officers not only identified noncredit education as a flexible mechanism to meet the immediate training needs of business and industry, but also identified noncredit education as a potential enrollment support structure for growing for credit enrollments in traditional training programs. WDO 1 described the importance of identifying the role of forcredit education when executing noncredit workforce development strategies:

A lot of times we will borrow from the credit side of the house... curricula that does exist and take out the parts and pieces our customer doesn't need

and put in additional things they do require a lot of times we don't offer on the credit side.

Resolving conflict when addressing the needs of stakeholders is paramount in developing relationships and determining structures associated with the delivery of noncredit education. Interviews with CEOs and workforce development officers provided rich data illustrating conflict and resolution of conflict when addressing the unique characteristics of noncredit education.

Summary

Findings in this study focused on relationships as a means to establishing credibility, decentralized structure as a characteristic of noncredit education, and institutional conflict in meeting the needs of stakeholders in four colleges participating in this collective case study. Findings associated with noncredit workforce training were compared and explored as described by participating college CEOs and workforce development officers who provided rich qualitative data. The data illustrated the current role of noncredit workforce education within colleges and the impact on faculty, staff, communities, and business and industry stakeholders. How does decision making by college leaders and organizational structure impact workforce development strategies in Louisiana's Community and Technical Colleges? Chapter five will examine findings, determine implications, and outline considerations for further study.

Chapter 5 Discussion

The purpose of this collective case study is to examine organizational structures impacting noncredit education and their effects on determining workforce development strategies in Louisiana's Community and Technical Colleges. The collective case study qualitative method was used to assess multiple cases representing noncredit education activities within four colleges to provide an in-depth analysis of the issue. Interviews with college CEOs and workforce development officers at four participating community and technical colleges within Louisiana's Community and Technical College System provided the research foundation for the study. Common themes will be analyzed and discussed in this chapter centered on interview questions asked of college CEOs and workforce development officers that focused on the impact of noncredit education activities, changing organizational structures, decision making practices, and workforce development strategies. Themes are supported by qualitative data displays presented in Chapter Four. Utilizing Multiple Criteria Decision Making by Zeleny (1981) in addition to Mintzberg's Five Basic Parts of an organization (1979), causes and effects of decision making on organizational structures and workforce development strategies will be examined to answer research questions and provide insight and recommendations for further study.

Interviews with college CEOs provided insight into the organizational structures and decision making practices supporting workforce development strategies in four case study community and technical colleges. Common themes were discovered illustrating the role of noncredit workforce education in the minds of colleges, business and industry, and policy makers. College CEOs also provided insight in the expectations at the system level and the realities at the local college level. Interviews with workforce development officers at participating colleges provided a glimpse into the organizational structures of workforce

divisions, the role of noncredit education, tracking noncredit students, the impact of the workforce division on the college, and challenges in the delivery of noncredit education. These interviews provided an in depth review of the day-to-day operations of workforce development officers and divisions within four colleges in the Louisiana Community and Technical College System.

Results from interviews suggest that college organizational structures are fluctuating due to the rapidly changing budgetary landscape within colleges. Workforce development officers state that their divisions are increasingly viewed as profit generating centers for the college. While this particular view is presented as a positive aspect of the impact of noncredit education, it presents challenges to workforce development officers as they work to sustain critical support services for enrolling and training noncredit students.

Analysis and Discussion

The review of literature highlights noncredit workforce training education issues and the impact on organizational structure, decision making, funding, faculty, students, and student data systems. Additional implications center on state policy and outcomes. A lack of policy guiding noncredit education results in institutional responses that may be "survival" in nature but inefficient to the organization and ineffective at meeting business and industry needs. A review of literature appears to illustrate that differences exist among states with regard to varying organizational structures when delivering noncredit workforce education. Economic uncertainty in Louisiana has required the Governor and lawmakers to evaluate workforce development strategies. Noncredit education will play a critical role in the recovery of the state after budgets are cut and college structures are challenged.

As noted in the Community College Research Center study by Van Noy et.al. (2008)

Louisiana is one of only six states out of fifty that does not have noncredit workforce education policy. Louisiana's community and technical colleges currently do not benefit from a noncredit workforce education formula funding model. A formula funding structure for noncredit education would benefit community and technical colleges by providing flexibility in short-term training to meet workforce demand. Instead, colleges align credit course offerings with the needs of business and industry as a guaranteed source of income often resulting in limiting noncredit workforce training opportunities. Noncredit workforce training offerings do exist but operate from self-generated funding structures. While some colleges have achieved success, others struggle to meet the demands of a rapidly changing economy.

New workforce development legislation as a result of Louisiana Governor Bobby Jindal's 2008 legislative agenda has led to a change in the existing credit formula for higher education institutions, provided rapid response funding for high demand and high enrolling credit programs, and has created a Fast Start program specifically designed to meet the needs of new and emerging industry in Louisiana. These actions lead to an economic development process that creates jobs for Louisiana's citizens which is necessary to fill a skills gap. The funding mechanism to fill this gap, however, is only viable in credit course offerings, though the noncredit arena may be the most efficient method to address the economic development needs of the state. For example, community and technical colleges have established curriculum business training programs that train data clerks, bank tellers, paralegals, and medical coders. In the event economic development agencies attract a new industry requiring a workforce to sustain an international call center, the colleges would have to engage in a curriculum development process to ensure credit enrollment FTE funding to generate revenue to initiate and sustain the program. However, if utilized, noncredit curriculum development and the course certification process

would not be held to the traditional credit curriculum procedure and would provide a quick and flexible solution to entice industry to locate to the area. How college leaders make decisions related to noncredit workforce training and how these decisions effect organizational structures therefore impacting noncredit workforce training strategies has provided a rich research base for this study.

The Noncredit Education Dilemma

Characteristics of noncredit students include non-traditional adult students that seek higher education and training for job advancement and/or job attainment associated with a career change (Burnett, 2003). Ashburn (2007) notes that noncredit adult students are not included in policy decisions and not accounted for when demonstrating successful outcomes. This finding is evident within community and technical colleges in Louisiana. While student outcomes such as job placement, licensure pass rates, and student completion rates are critical to accrediting bodies and serve the colleges' mission, the Louisiana Board of Regents measures success by degree attainment. As a result, colleges are provided incentives for degree attainment therefore crafting institutional responses resulting from organizational structures supportive of traditional college students. Noncredit education divisions are left to become self-sustaining enterprises that meet the needs of noncredit students while trying to maintain faculty and serve industry. College CEOs are at a crossroads where they must balance formula funding policy with meeting the needs of business and industry as evidenced by the college mission. In addition, college CEOs are operating within existing organizational structures designed to support credit enrollment while challenging noncredit workforce education divisions. Therefore, decision making by college leaders takes center stage in supporting organizational structures that are effective in executing workforce development strategies.

The Essence of Decision Making

Zeleny (1981) identifies a four stage process for decision making that begins with two approaches: one that is "outcome oriented" and one that is "process" oriented. These two approaches support a four stage process of decision making including Predecision, Partial Decision, Final Decision, and Post-Decision. Predecision begins with "conflict." Conflict initiates "decision making tension." This tension directs the decision maker to assess existing alternatives, strengths and weaknesses within the existing structure. Throughout this process the decision maker is able to identify new alternatives. Partial decision emerges with the evaluation and assessment of predecision. The "ideal" and "alternative" predecisions guide the process for decision making strategies at this point in the decision making process. Final decision evolves through the reduction of alternatives that were discovered in the predecision process. Consensus building guides the final decision and fewer alternatives aid in greater confidence by the decision maker.

Noncredit workforce education activities in College 1 are represented by a workforce development division managed by a Vice Chancellor of Economic Development who reports directly to the Chancellor. While the Vice Chancellor of Economic Development is directly responsible for the outcomes associated with the division, the Chancellor has included the workforce development division outcomes as a goal within the Strategic Plan Matrix for the College. Goal VI as represented in the Matrix states the following: "Connect College 1 to the needs of the region through personal enrichment, business, community and economic development characterized by responsiveness and customized criteria." There are also Critical Success Factors associated with College 1 Strategic Plan Goal VI which include: support for economic development, increasing continuing education offerings, increasing customized

training with business and industry, increasing participation in community events and organizations, and promoting diversity through cultural activities.

The workforce development division collaborates with the academic and finance divisions in curriculum development and grants accounting. The college is operating an existing organizational structure, budget, planning and decision making process that partially includes the workforce development division. This division is seen as a revenue generating center for the college. College 1 CEO 1 acknowledges the current formula supportive of credit enrollment but does not consider the formula as a driver for the structure of the college. Accreditation and transformation of the college from a technical training mission to a technical community college training mission remain her top two priorities.

This current structure supports national trends in changing organizational structures that support noncredit education. According to the Lumina Foundation (2007) increased credit program offerings and increased revenue as a direct result of expanded noncredit education activities is a common occurrence at colleges throughout the country. In addition, strategic planning efforts are beginning to reflect the increasing role and relevance of noncredit workforce education as evidenced through changing college missions.

Zeleny's (1981) Outcome Oriented approach best represents the initial decision making strategy for College 1 CEO 1. References to decisions that impact accreditation success support this claim. In addition, activities prescribed by the strategic plan of the college, indicate a structuring of the workforce division with a specific intended outcome of revenue generation. As evidenced by an elaborate strategic plan with fixed outcomes and expectations, CEO 1 is facilitating what Zeleny would consider the Final Decision phase. Responses from College 1 CEO 1 indicate that the current strategic plan and organizational structure reflect a consensus of

stakeholders and an analysis of positive and negative considerations that have culminated in a final decision. References during the interview to what could be or what was experienced at another college represents what Zeleny (1981) would classify as Post-decision Regret. "We're still building and transforming and we haven't yet gelled just yet as a community college." CEO 1 often refers to the college as "in transition" referencing the movement from a technical college mission to a technical community college mission and identity.

Noncredit activities associated with College 2 are specific to a niche industry. The niche industry in this case is the marine industry. Interviews with College 2 CEO 2 as well as WDO 2, indicate that intentional decisions were made to structure the workforce development division as it exists today. Specifically, an effort to move noncredit marine training to credit training to ensure formula funding for survival of the program represents a "Process Oriented Approach" as classified by Zeleny (1981). The Process Oriented Approach is also evident when analyzing the structure of the workforce development division.

College 2 has a Workforce Development Director who also assumes a campus administration role. The college is multi-campus and spans a large region. CEO 2 clearly suggests that each campus leader must also assume noncredit workforce training responsibilities when he states, "You hold your campus leaders accountable for workforce training for noncredit education." When determining credit or noncredit training, CEO 2 works with campus leaders to identify what is in the best interest of the individual or business seeking training. Once that is determined, decisions are made to execute training strategies to meet mutually agreed upon goals and objectives. This approach was not presented in the interview through a formalized strategic plan, but rather was illustrated in a case by case decision making process.

Pre-decision represents the practices by CEO 2 as he balances conflict with determining alternatives for decision making. This behavior is evidenced in the example of the college CEO moving noncredit to credit training to ensure a formula funding return necessary to sustain training to meet the specific outcomes negotiated between the college and the client and/or business and industry partner. According to Zeleny (1981), Pre-decision promotes tension that propels alternatives necessary to transition to Partial Decision. CEO 2 proposes that while yielding to the current formula funding process for credit enrollment, he also expresses concern over the prevailing sentiment that credit is of more value than noncredit thus confusing business and industry. This struggle is indicative of what Zeleny terms "Cognitive Dissonance." Cognitive dissonance represents the reflection of the decision making process and implications of the decision as the decision maker experiences the final decision.

The Dean of Workforce Development for College 3, reports to a Vice Chancellor for Academic and Student Affairs who in turn reports to CEO 3. This structural design is currently under review as evidenced by CEO 3 during the interview process when he states, "One of the things we are looking at as a possibility is thinking about the Dean of Workforce Development as a direct report to the Chancellor." In addition, the role of WDO 3.1 is being considered in streamlining efforts associated with strategic planning and the development of workforce training strategies. Currently WDO 3.1 facilitates special projects under the direction and leadership of CEO 3 and in cooperation and support of WDO 3. CEO 3 further acknowledges the critical role the Dean of Workforce Development plays in the current organizational structure as a member of the "College Council." CEO 3 values the contributions of WDO 3 in planning meetings as he informs the council on critical noncredit and workforce training activities that

directly impact operations of the campus and influence future opportunities for enrollment growth.

An analysis of interview responses by CEO 3 and WDO 3 indicate decision making approaches as "Outcome Oriented." This approach is evident as CEO 3 provided interview responses centered on sustainability of existing workforce strategies supportive of noncredit education to ensure future outcomes are realized. By acknowledging the possibility of changing the organizational structure to ensure the Dean of Workforce Development is a direct report to the Chancellor, it is evident that the structural decision is tied to acknowledgement of needed changes to achieve pre-determined outcomes. In addition, strengthened relationships between workforce and academic divisions are emerging supportive of faculty teaching across the curriculum infusing both credit and noncredit education. This strategy supports collaboration that will reduce competition for resources. Nunley (2007) suggests that credit and noncredit programs and faculty are often divided within institutions competing for the same resources. While credit and noncredit faculty work together, they seldom participate in collaborative planning strategies supportive of a common educational goal. This occurrence has presented challenges for colleges in meeting the needs of stakeholders supported by the college. The outcomes oriented strategy is supported by an existing Advanced Technology Center dedicated to noncredit workforce training as stated by WDO 3. During the interview process, both CEO 3 and WDO 3 elaborated on the deliberate planning and development of the Advanced Technology Center to meet a specific manufacturing training need. This training need was voiced by economic development leaders in preparation for anticipated job growth in the manufacturing industry sector for the region. The creation of a workforce training environment carefully designed to meet and support the projected job demand resulted in a formalized workforce training center for the college.

Partial Decision (Zeleny, 1981) best represents the current decision making stage at College 3. Partial decision begins with evaluation and assessment of pre-decision. Separating "ideal" and "alternative" predecisions initiates the quest for partial decision making strategies. CEO 3 has identified conflicts within the current structure and is actively acknowledging and structuring the organization based on an evaluation of alternatives. CEO 3 has determined that based on the success of an existing dedicated workforce development center and the challenges associated with oversight by the academic division; it is in the best interest of the college that the workforce development division evolves into a separate division to successfully meet predetermined outcomes for future growth and sustainability.

A well-defined division for workforce and continuing education at College 4 is supported by a Dean of Workforce Development and Continuing Education (WDO 4). The division is represented by four clearly defined workforce development units each led by a unit coordinator. The Dean of Workforce Development and Continuing Education reports to the Vice Chancellor for Business and Economic Development who reports to the Chancellor (CEO 4) of the college. The Vice Chancellor of Business and Economic Development is directed by the Chancellor to provide direct support to the workforce development and continuing education division. The Dean of Workforce Development and Continuing Education is a member of the planning council which serves as the policy and decision making council of the college. CEO 4 believes that a "natural link" between finance and workforce development must be in place to sustain workforce development strategies for the college. He also suggests that changing business models are under consideration to further support entrepreneurial efforts of the workforce development division.

CEO 4 indicates that outcomes guide decisions. He places value in improving the "stake in life" for students at his college. Quality and quantity are of great importance to CEO 4 when

focusing and planning for the needs of students and employers. He also emphasizes the importance of "competitive edge" when identifying relevant noncredit training opportunities for students.

CEO 4 goes on to suggest that to what extent the current formula supports those outcomes is good, but the college will not change its behavior in order to support a formula over stakeholders. During the interview process, a very deliberate enrollment and college growth outcome was presented by CEO 4. This decision making behavior is representative of an "Outcome Oriented" decision making approach. The outcome is identified on the front end and serves as the guiding principle for all members on the Planning Council when making policy considerations. Boggs (2004) suggests that unpredictable employment sectors, rapidly changing economies, and the need for individuals to receive certification of skills is requiring colleges to become flexible in providing courses of relevance to the people they serve. Boggs goes on to identify the significance of noncredit enrollment trends on funding that often goes unnoticed by policy makers. CEO 4 has outlined an "outcome oriented" decision making approach that supports an emerging trend in community and technical colleges throughout the nation.

The Final Decision stage by Zeleny (1981) best represents the decision making stage in place at College 4. Interview responses by CEO 4 and WDO 4 indicate a culmination and consensus of alternatives leading to a final decision. Interview responses indicate that CEO 4 has identified all variables associated with the decision making process and has made a final determination. This determination became evident when CEO 4 indicated that the current formula funding mechanism for credit funding had no impact on decision making for noncredit education. He further suggests that formula funding for credit enrollment is of less significance as the state general fund is reduced therefore, dependency on alternative revenue sources as

generated by the noncredit division and student tuition becomes increasingly important and begins to shape decision making processes for the college.

Structuring the Organization

Mintzberg (1979) defines structure as a division of labor within an organization with specified tasks coordinated among divisions. According to Van Noy ed. al. (2008) two types of organizational structures exist which support noncredit workforce education in community colleges, those that are separate and those that are integrated. 'Separate' structures represent unique divisions within the college where credit course offerings are separate from the noncredit division while 'integrated' organizational structures exist when noncredit workforce education efforts are blended with academic credit divisions. Decision making practices by college leaders correlated with organizational structures provide a base for analysis of impact on workforce development strategies for colleges participating in this collective case study. Data analysis provides a foundation for studying the direct effects of decision making on organizational structures. The application of Mintzberg's Five Basic Parts of an Organization provides a framework for analysis of data provided through interviews of college CEOs and workforce development officers.

According to Mintzberg (1979) five fundamental parts of an organization exist which include the Operating Core, Strategic Apex, Middle Line, Technostructure and Support Staff. In addition, Mintzberg suggests that five organizational configurations balance the five basic parts of the organization. The configurations include Simple Structure, Machine Bureaucracy, Professional Bureaucracy, Divisonalized Form and Adhocracy. The Simple Structure supports the Strategic Apex. This structure is evident in new organizations and is often led by a strong leader. The Machine Bureaucracy operates in the Technostructure. Job specialization is

significant in the Technostructure to direct management strategies that foster growth in larger organizations. The Operating Core facilitates larger units and power is evident within the Strategic Apex. The Professional Bureaucracy as described by Mintzberg is heavily reliant on standardization of skills. Coordination of the Professional Bureaucracy is facilitated by the Operating Core. The environment within the Professional Bureaucracy is stable yet complex. The Divisionalized Form facilitates power through units in the Middle Line and is often found in larger organizations. Productivity is measured by outcomes and performance. The Adhocracy coordinates a balance of all parts of the organization.

A Vice Chancellor of Workforce and Economic Development leads the Workforce Development Division in College 1. The Vice Chancellor directs a division with staff dedicated to program coordination focused on the delivery of noncredit workforce education. Program coordinators and one administrative staff person work outside of the division with other college divisions such as academic affairs, finance, and student services to ensure the development and offering of noncredit education activities within the college. For example, workforce development program coordinators work directly with finance staff to ensure successful execution of training contracts, work with student services on enrollment of noncredit education students, and work with academic affairs on curriculum development. This collaboration is evidenced by the response of the college CEO when asked how the college supports the workforce development division: "They support it. They understand so workforce development has always been a huge part of what the college has participated in." CEO 1 goes on to suggest that it is important for finance and workforce development divisions to have a close working relationship to ensure avoidance of audit issues. The workforce development division is

contained to one department, but faculty and classrooms within the college are utilized in the development and delivery of noncredit workforce education.

Based upon interview responses, College 1 exhibits a strong technostructure. Job specialization among divisions within the college directly tied to noncredit workforce training activities support this claim. For example, College 1 CEO 1 clearly delineates the role of the workforce development division to specific outcomes outlined in the college strategic plan. The activities of the workforce development division are directly tied to an overall management strategy for the college. Organization type for College 1 can best be described as Machine Bureaucracy due to the influence of a strong technostructure. Additional evidence of this organizational type exists as presented by the college CEO when describing recent organizational change within the college. "We're still building and transforming and we haven't gelled just yet as a community college. We're still new as a community college. Very new in so many ways." CEO 1 expresses this view in relation to accreditation expectations associated with the Southern Association of Colleges and Schools. According to Mintzberg (1979), a strong technostructure within a Machine Bureaucracy is common to growing or changing organizations.

While College 2 supports a Workforce Development Director, CEO 2 clearly incorporates an organizational structure that holds campus leaders accountable for noncredit workforce training activities that directly meet the needs of the local economy. CEO 2 states, "We have a workforce development person over the region. However, I look at each campus administrator as workforce development." He believes that the campus administrators represent the communities they serve and are responsible for meeting the workforce training needs of their specific community. Although campus administrators are held accountable for noncredit workforce education activity at the campus level, an organizational structure provides one grant

coordinator to assist campuses in the development of grants and alternative funding opportunities. CEO 2 emphasizes that compliance with regulations associated with grants that support noncredit education is critical. He highlights the importance of grants management and accountability in balancing grants that support noncredit education activities in the college. The successful management of grants leads to additional training opportunities that strengthen relationships with business and industry. CEO 2 also describes the increasingly important role of student services and finance in providing successful noncredit workforce training when he states, "As far as administrative office, if the companies paying for it then definitely you have to set up receivables, and invoice the companies for training. Internal Controls. No Deficit. Make sure bills are paid."

As evidenced by responses from CEO 2, noncredit workforce training is supported through a revenue over expense model that sustains continued activities within the workforce division. This type of model is often referred to as an "enterprise" model. Jenkins and Bosswell (2002) suggest that existing formula funding models do not account for noncredit activity and that colleges are creating business models specifically to support noncredit bearing courses. Colleges are adhering to existing fiscal policy to support such models to ensure that compliance and audit do not impede workforce development strategies designed to meet the needs of local and regional economies.

CEO 2 provides an overview of an organizational structure that provides departmental services to a multi-campus college. The ultimate goal of the services provided is to meet a training need while also meeting the expectations of stakeholders. In this structure campus leaders are accountable and work through a complex series of off campus departments and on campus service providers to facilitate noncredit workforce training. A workforce development

director provides consultative services for grants development and support in building relationships with business and industry. Campus departments at most locations interact with a system of departments at the main campus and divisions within the local campus to support noncredit workforce education.

College 2 has existed as a member institution within the Louisiana Community and Technical College System since 1999. Prior to becoming a member institution of LCTCS, College 2 held a reputation as a leading provider of customized training to business and industry. While the college is not new, a new niche has been established in providing noncredit workforce training within the marine industry. This niche is considered relatively new to the long history of the college and has shaped the current organizational structure of the college. Mintzberg's (1979) Simple Structure indicative of a strong leader best represents the organizational structure of College 2. In the Simple Structure the organization benefits from a strong Strategic Apex guided by a leader who associates management styles with direct supervision of noncredit education activities and departmental management that transcends a multi-campus college.

A clearly defined workforce development division characterized by an Advanced Technology Center positions College 3 as unique within the participating colleges of the collective case study. The center was developed as part of a "deliberate" plan for workforce innovation which received initial support and sustainability through partnerships with business and industry. The Director of Workforce Development currently reports to the Vice Chancellor of Academic Affairs. Discussions on organizational structure provide a unique perspective into the evolution and impact of noncredit workforce training on a new and emerging member college of the Louisiana Community and Technical College System. The impact of the workforce division on the college's future planning goals is demonstrated by the college CEO when asked

how the current structure supports workforce development strategies he suggests that plans are in place for expansion of the ATC to include a conference center and an effort to locate workforce investment boards and economic development entities on campus. This symbolic gesture would illustrate to business and industry an integration of workforce development strategies supporting the local and regional economy.

Future planning efforts coupled with changes in reporting structure for the Director of Workforce Development transitioning from a direct report of Vice Chancellor of Academic Affairs to Chancellor illustrate the influence and impact of workforce development strategies within the college. In addition, recent restructuring of the division of finance and administration, provide additional changes in organizational structure directly impacting workforce development strategies. When asked how organizational structures within departments in College 3 support the workforce development division, CEO 3 outlined changes directed to this effort. He identified the recent hiring of a Comptroller as a change in organizational structure and business model in an effort to provide additional services to the workforce development division. He also suggests that the leadership must look at changing business practices to reflect a "cost or profit center." CEO 3 indicates that rather than treating the workforce development division as a separate entity, collaboration in the budget planning process can lead to mutually identified outcomes that will support the college as a whole. College 3 WDO 3.1, while under the management of College 3, expressed existing challenges by virtues of being viewed as "special." WDO 3.1 recounts a recent conflict with the college finance department. She communicates this challenge when providing an example of creating noncredit workforce training opportunities for students who work during the day. She indicates that when seeking flexible tuition payment schedules in evenings to accommodate the needs of students that she is viewed as wanting

"special privileges." She also indicates that the solutions provided by the college are for working students to pay tuition between 8:00 a.m. and 3:00 p.m. and when working students try pay tuition during lunch breaks that the college staff take lunch breaks and are not available.

WDO 3.1 expressed challenges in identifying necessary support from the finance department within the college. This challenge is considered in analyzing the organizational structure and type as it relates to Mintzberg's (1979) five organizational configurations in addition to "loose coupling" by Weick (1990). Loose coupling is important in defining relationships between divisions of the college supporting noncredit education. Birnbaum (1988) also suggests that there are advantages to loose coupling during times of instability. Organizations with multiple units and less coordination are able to maximize innovative strategies for problem solving due to less involved management unlike organizations with fewer management units requiring a greater presence in overall management of the problem by the college leader.

The Advanced Technology Center at College 3 which houses the workforce development division for College 3 represents a large organization in comparison to colleges participating in this study. While the college visioning and planning efforts represent a stable and deliberate process for supporting noncredit workforce training, the recent review and suggested changes in organizational structure to accommodate future growth indicates a complex environment within the organization for departmental roles and responsibilities associated with supporting workforce development strategies. This structure represents a large Operating Core as defined by Mitzberg (1979) which supports the Professional Bureaucracy. In addition, current organizational changes in reporting indicate a large Middle Line supporting the Divisionalized Form where performance outcomes represented by the establishment of the workforce development division as a profit

center and platform for future college development, guide current decision making practices by the college CEO impacting workforce development strategies. Mintzberg (1979) suggests that blending of organizational type often emerges as a result of changes in environment. Recent budgetary challenges as communicated by CEO 3 when discussing how the workforce development director engages in the budget and planning process with the desired outcome as a profit center, further supports this claim.

College 4 represents the largest college participating in the study. The goals associated with the Workforce Development and Continuing Education Division are directly tied to outcomes associated with productivity. CEO 4 clearly identifies outcomes when asked to describe decision making practices with regard to organizational structures that support noncredit education. He suggests that College 4 is driven by a revenue over expenditures "mindset." He views the noncredit division as a "public service." "It offers skill development that meets the needs of the local environment, but primarily it is to be a profit center for the college." CEO 4 identifies return on investment, expanded capacity, and need as three driving factors when making decisions related to supporting workforce training strategies for the college.

CEO 4 discusses the need for all divisions within the college to play a critical role in supporting noncredit education activities. The college is constructed as one large multi-campus single institution. The workforce and continuing education division is located on the first floor of the health sciences center. When asked how departments within the college support noncredit education, CEO 4 acknowledged the benefits of the finance division located near the workforce division. Divisional meetings as required by CEO 4 also provide an opportunity for continuous dialog between the finance and workforce divisions. CEO 4 predicates this example by suggesting that the current structure did not always exist and described the workforce

development division as "separate" and "isolated." "Over the last two years we have pushed to change that by including people in the workforce and continuing education unit in general college committees with the development of cross functional teams to meet certain needs."

Grubb, Badway, and Bell (2002) suggest that colleges are beginning to recognize the changing role of noncredit education and the importance of serving a poorly defined student population. They go on to suggest that increased flexibility, employer engagement, and decreased bureaucracy are key elements in better serving noncredit students. The inclusion of the workforce and continuing education unit in "committees" and "cross functional teams" to break down barriers for noncredit education students supports the literature and indicates positive changes within the college supportive of noncredit workforce training strategies.

While College 4 represents a large, yet complex organization often indicative of a Professional bureaucracy, recent organizational changes have promoted harmony between divisions for the direct purposes of supporting noncredit workforce education strategies. Collaboration within divisions and involvement in general college committees represent a balance within the organization. This balance in organizational structure represents what Mintzbeg (1979) would classify as the Adhocracy. Deliberate changes in organizational structure bridging credit and noncredit programmatic practices create a balance within the college centered on solutions that support mutually identified outcomes promoting a common culture. This concept is presented when CEO 4 provides comments related to how the current structure supports workforce development strategies. He suggests that both credit and noncredit faculty now see themselves as workforce training agents for the college. According to CEO 4, "survival and growth of the college are dependent on responding to the needs of the regional economy."

March (1984) supports this claim when suggesting that organizational change is related to environmental change. When change is accelerated, change in organizational structure quickly follows.

Answering the Research Question

The primary research question guiding this study was centered on how college leaders make decisions on college organizational structures impacting noncredit workforce training strategies. To address this question, each participating college was typed in accordance with the two theoretical models central to this study by Zeleny (1981) and Mintzberg (1979). Analysis of the data provided by college CEOs and workforce development officers created a platform to identify each participating college by decision making approach and stage in addition to organizational configuration and organizational type. Multiple Criteria Decision Making by Zeleny provided a foundation for analyzing decision making practices by college CEOs and categorizing responses by stages and outcomes to draw comparisons and contrasts between cases. Mintzberg on the other hand, outlines five basic parts of an organization which aid in determining organizational type.

Utilizing Zeleny's (1981) model, each college's decision making process is presented as described by college CEOs and workforce development officers to identify which stage best describes the current organizational structure. Data illustrations provide a visual representation of mapping the decision making process for each college. An analysis of Mintzberg's (1979) Five Basic Parts of an Organization was applied to better understand organizational structures impacting noncredit education and their effects on determining workforce development strategies in Louisiana's Community and Technical Colleges.

Decision making Approaches and Stages (Zeteny, 1961) Categorized by Cottege				
College	Approach	Stage		
College 1	Outcome Oriented	Final Decision		
College 2	Process Oriented	Pre-Decision		
College 3	Outcome Oriented	Partial Decision		
College 4	Outcome Oriented	Final Decision		

Table 7Decision Making Approaches and Stages (Zeleny, 1981) Categorized by College

First applying Zeleny's (1981) model, *Outcome Oriented* describes the decision making approach by College 1. Established workforce training goals as outlined in the strategic plan matrix and the current structure of the workforce division designed to address intended outcomes supports this claim. Consensus of stakeholders and mutually agreed upon considerations resulting in a final plan for the workforce division represents the *Final Decision* stage for College 1. CEO 1 reflects on the transformation of the college and additional considerations when looking back on decisions and suggesting alternatives if given the opportunity to adjust the strategic plan. This type of reflection provides evidence of Post Decision Regret.

Intentional decisions to move noncredit courses to credit courses to ensure formula funding represents the *Process Oriented* approach to decision making by CEO 2. Decisions impacting noncredit workforce training are guided by a formula funding process. As these decisions impact College 2, the *Pre-Decision* stage represents decision making practices by CEO 2. The dilemma of transitioning noncredit to credit courses to satisfy a process for formula funding creates conflict as credit is perceived as of greater value than noncredit. CEO 2 balances this conflict with alternatives which creates tension within the decision making process.

Current reorganization efforts within College 3 have resulted in planning strategies based on predetermined outcomes. These outcomes are based on restructuring within the organization incorporating workforce training within the senior leadership structure. The *Partial Decision* approach is evidenced in College 3 by the evaluation and assessment of pre-decision leading to comparisons of ideal strategies and alternatives. Evidence of this design is illustrated in the changing organizational structure moving the Director of Workforce Development from the supervision of the Vice Chancellor of Academic Affairs to the Chancellor and the deliberate design and construction of the Advanced Technology Center to address a specific industry sector.

A clearly defined role for noncredit workforce training in College 4 tied directly to outcomes represents the *Outcome Oriented* approach to decision making by CEO 4. Improved stake in life for students, linking workforce and finance departments through policy development, and deliberate growth tied to an enrollment plan provide evidence of specific outcomes that guide decisions by CEO 4. The *Final Decision* stage is represented by College 4 as considerations to advance workforce development strategies are specific and deliberate. For example, College 4 has removed current formula funding from decision making related to noncredit workforce training. As organizational structures are impacted and changing in community and technical colleges based on decision making approaches and stages, how departments within organizations interact to support workforce development strategies provides key considerations to the study.

Mintzberg (1979) describes five fundamental parts of an organization that serve as coordinating mechanisms which define five organizational configurations. Interview responses provided by college leaders and workforce development directors provided an overview of current organizational structures as illustrated in Table 8 that define how departments within the college interact to provide services for noncredit workforce education services. Levels of coordination vary and organizational types are influenced by environmental conditions and

pressures that shape configurations and can create changes in structure that vary from one

organizational type to another.

Table 8

Organizational Configurations and Type (Mintzberg, 1979) Categorized by College				
College	Favors Organizational Configuration	Organizational Type		
College 1	Technostructure	Machine Bureaucracy		
College 2	Strategic Apex	Simple Structure		
College 3	Operating Core	Professional Bureaucracy		
(Transition 3.1)	Middle Line	Divisionalized Form		
College 4	Balance of Configurations	Adhocracy		

College 1 favors the *Technostructure* as an organizational configuration. Job specialization tied to noncredit workforce training activities leads to goals and objectives as outlined in the college's strategic plan. Due to the current growth and changes associated with the college, CEO 1 discusses the transformation of the college from a technical college to a technical community college and the impact of the changes on job specialization. This transformation provides evidence of what Mintzberg (1979) would classify the organization as a *Machine Bureaucracy*.

CEO 2 holds campus administrators accountable for noncredit workforce training activities. This management style favors the *Strategic Apex* as a strong leader directs specific strategies related to noncredit education and the management of business and industry relationships. The delegation of noncredit activities as managed by multiple campus leaders supports the *Simple Structure* as organizational type. In addition, noncredit activities are centered on a niche industry requiring standard processes for reporting enrollment and completion.

As a result of reorganization efforts and the potential of a merger with another college, College 3 is experiencing a blending of organizational type. Current visioning for noncredit education by CEO 3 is stable and deliberate, while recent changes in organizational structure and departmental roles have created a complex environment. A strong *Operating Core* plays a crucial role in the management of noncredit workforce education at College 3. Standardization of skills is in place and while the organizational structure is stable, recent changes are creating complexities as reporting roles change. Changes in environment suggest a blending of organizational type where the *Middle Line* supports the *Divisionalized Form*. For example, the potential for merging institutions has led to streamlined workforce development efforts between the colleges that are proving beneficial as college departments' work collectively to satisfy a common goal.

A balance of organizational configurations represents the current organizational type at College 4. A large yet complex organization classifies College 4 as a *Professional Bureaucracy*, but recent changes in leadership provide the impetus for increased flexibility, employer engagement, and decreased bureaucracy surrounding noncredit education. The *Adhocracy* is represented within the balance of organizational structure as deliberate decisions and strategies are in place specific to noncredit workforce education. For example, intentional changes in organizational structure have bridged credit and noncredit practices and procedures such as enrollment procedures and transcripting of coursework creating a balance and common culture within the organization.

How does existing state policy on formula funding impact noncredit workforce education strategies within colleges?

Current formula funding policy in Louisiana's community and technical colleges supports credit enrollment only. The findings from this study show that despite the lack of policy attention to the needs of the non-credit sector, colleges have adapted by developing varied support philosophies and decision-making strategies. By way of example, three of the

participating case study colleges have supported noncredit workforce training divisions through innovative business models that account for revenue over expense when pricing noncredit education. These models have provided measures of sustainability for each institution and direct support for workforce development divisions which serve as the enterprising arm of the college. One participating case study college has converted noncredit courses to credit courses to ensure formula funding is available to sustain a specific training program for a niche industry. Understanding of the formula funding model is important to participating colleges in the study, however, each college has indicated that due to decreasing budgets, dependency on selfgenerated revenue is rising and workforce development divisions are positioned within each organization to bring additional resources to colleges in the form of funding and physical resources. This goal is accomplished through strengthened partnerships with business and industry. Thus, it would appear that overall, lack of state support has moved colleges toward stronger relationships with industry and enhanced partnerships which allow non-credit education not only to meet the needs of industry but also develop a strong foundation for further relationship building in the future.

How are noncredit workforce education divisions organized within colleges?

A key finding in this study is that innovation serves as a primary component in the design of organizational structures that support noncredit workforce training strategies. That is, in order to sustain and support such innovation, college organizations have emerged in somewhat of an organic fashion as a way of best addressing the individual college's priorities. The colleges, consequently, may be more loosely-coupled than originally thought, a looseness which has enabled the needed innovation. According to Weick (1992) loosely coupled organizations can yield changes in structure that support innovation. Innovation has led to changing business models that develop and support noncredit education activities in an effort to sustain workforce strategies. In addition, workforce development is playing an increasing role in strategic planning efforts at participating colleges.

Three of the participating colleges in the case study have structured workforce development divisions as single units within the college. These divisions work collectively within a college organizational structure supported by various departments. One college however, has delegated workforce development delivery strategies to multiple campuses. Because campus leaders are expected to manage the delivery of noncredit workforce education and relationships with business and industry, a reliance on loose-coupling may provide the responsiveness needed to do so effectively.

How do college leaders reconcile workforce training demand with existing organizational structures and current funding policy for higher education institutions?

CEOs claim that current organizational structures are limited in responding to the needs of business and industry and must change. This limitation is evidenced by the mismatch in organizational structure in the college and system-wide levels. Organizational structures as noted by study participants should mirror those structures at the system and state level to make system roles and priorities clear and operations more efficient at the college level. Study findings on the other hand, show that colleges are doing several things within their control to remain effective in their noncredit programs. Colleges are increasing the role of credit faculty in noncredit discussions and planning efforts to maximize revenue generating opportunities for the college. These efforts are also strengthening relationships with business and industry. Colleges noted the positive overall impact of workforce divisions by increased reputation, community awareness, and financial support.

Colleges are also using noncredit education as a mechanism for introducing emerging training as they struggle during difficult economic times. Van Noy et.al. (2008) describes the value of noncredit workforce education as an "incubator" for experimenting with new courses and determining viability in transitioning to credit course offerings. This trend is evident as participating colleges provided examples of utilizing the workforce division to "test" new programs where funding restraints would not provide for the creation of new for-credit programs.

Workforce development divisions in the eyes of college CEOs and workforce development directors have stepped up their efforts to connect the college with business and industry and community while providing revenue generation opportunities. Student information systems are playing an increasingly important role in effectively tracking noncredit training activities. A system-wide implementation of one common student information system has brought hope to some colleges. One college however, has voluntarily chosen to purchase a different system because they could not wait for the implementation and are not certain that the new system will meet the needs of expanding noncredit education activities. The reality for all participating colleges in the study and the common theme among all in reconciling structures with existing policy is that the financial challenges experienced by all colleges are creating environments conducive to organizational change.

How do college leaders make decisions on college organizational structures to address noncredit workforce education?

As evidenced repeatedly by participants in this study, decisions related to organizational structure are directly and indirectly influenced by the existing formula funding model for credit enrollments. Organizational structures supportive of noncredit education exist, yet vary in levels of development among colleges participating in this study. Findings illustrate that decision

making regarding structures has varied outcomes transitioning credit to noncredit courses, developing noncredit divisions as profit centers, and the identification and use of general fund resources supportive of noncredit divisions. The impact of noncredit divisions resulting from changing organizational structures is leading to enhanced resources for building infrastructure, meeting the mission of the colleges, and sustainability measures supported by both the strategic planning efforts of the college and direct support from strengthened relationships with business and industry.

Through the course of this study, participants have shared excitement and concern about the advantages and challenges in offering noncredit education. As evidenced in this study, institutional response to a growing enrollment trend in noncredit education activities coupled with impending financial uncertainty has led to innovative strategies to grow institutions and changes in organizational structures have become necessary to acknowledge the impact of noncredit education in Louisiana's community and technical colleges. How college leaders make decisions and organize divisions will become increasingly critical to the success and sustainability of workforce development strategies.

What's at stake?

Louisiana's current higher education design does not provide a formula funding mechanism for noncredit workforce education. As a result, two-year community and technical colleges driven by workforce training missions deliver noncredit workforce training through flexible curriculum designed to meet the needs of business and industry and secure workforce training grants accounted for as restricted funds by the institution. In addition, carefully executed business and industry agreements support self-generated funding opportunities that promote sustainability of programs. Basically this approach is positive and fosters creativity in seeking

funding for all courses. While creativity and innovation provide for growth and development of new sources of funding, the stability and resulting integrity of courses and course content may be at stake. At an August 10, 2011 Leadership Planning meeting with the President of the Louisiana Community and Technical College System and college leaders, noncredit education was identified as a key policy agenda item. It was determined by college leaders that increasing enrollments in noncredit education and barriers associated with funding and sustaining noncredit education are creating challenges in executing local and regional workforce development strategies critical in meeting the missions of community and technical colleges throughout Louisiana. Noncredit education formula funding policy ensures sustainability of program quality and growth as it exists today with credit formula funding.

As Louisiana is impacted by the nation's economic recession and higher education budgets are cut, the absence of noncredit workforce training policy leaves existing partnerships between education and industry vulnerable. Business and industry financial support is lessened by the recession and course offerings that are in direct response to business and industry needs are reduced as resources are diminished. However, creative partnerships between industry and higher education training providers will be critical to sustaining essential industry training demands in addition to consideration of a formula for funding noncredit workforce education.

Implications and Further Study

Through the interviews of participants and analysis of findings, a commonality among participating institutions within the study is the role of faculty in noncredit workforce training activities. Further study may yield valuable information associated with faculty credentialing and transcripting of course credit supportive of noncredit workforce divisions. College 4 is the only participating institution that has actively initiated this phenomenon. As a result of this creative

noncredit offering, multiple student needs are met by one faculty member who is qualified to teach within the credit and noncredit arena. Grubs, Badway, and Bell (2002) recommend the merging of credit and noncredit divisions as a strategy for enhancing revenue generation and the promotion of changes in organizational structures. The remaining three participating institutions discuss the phenomena of initiating a course through noncredit and moving to credit based on desires of students to matriculate into the college. How colleges throughout the country experience and manage this trend will provide valuable insight into an ever changing role of noncredit education in community and technical colleges.

Accounting for noncredit education activities provides an additional consideration for further study. Participating colleges have various ways of accounting for and reporting noncredit workforce training activity, yet seem limited in developing innovative ways to communicate the value of the data. How other colleges account for noncredit workforce training and articulate impact to the college, student, and business and industry stakeholders is of significance and essential in policy creation supportive of noncredit education.

Understanding the impact of noncredit workforce education policy in other states and how policy has evolved leading to innovation is a final recommendation for further study. Of particular interest, researching other states best practices for policy creation can support an effort in Louisiana that accounts for removing barriers and creating opportunities that support community and technical colleges in responsiveness to changing economies, needs of business and industry, and financial flexibility in sustaining the college through difficult budgetary constraints. Beginning with an intensive overview of all community and technical colleges will yield a current series of best practices that can serve as a foundation for policy development that can be compared to other states. Findings from this study suggest that there are noncredit

workforce education practices that are innovative and supportive of growing noncredit divisions. Understanding the complete landscape of noncredit education activities in Louisiana's Community and Technical Colleges is a first step in the process of effective policy creation to support the continuation of noncredit education.

Conclusions

Organizational structures in Louisiana's community and technical colleges currently vary depending on the level of engagement in noncredit workforce education. Some colleges seek sources of funding directly from business and industry; others use seed grant funding; others pass the costs directly to the consumer. Though creative funding structures provide for innovation, frequently needed courses are not offered because of the lack of a funding mechanism. The process of forgoing needed courses is a contradiction to the mission of the Louisiana Community and Technical College System. Developing a noncredit formula funding policy is critical to the development of strategies to address workforce needs.

A pool of dollars created by a funding structure supportive of noncredit training facilitates the creation and implementation of new courses with revenue to sustain future course development. An example of this phenomenon is illustrated in the high demand field of heating, ventilation, air-conditioning, and refrigeration (HVACR). Because a noncredit certification course may only have eight interested applicants, the course is not offered because ten students enrolled may be required for the course revenue to cover expense. A funding formula structure including a need based component established by top demand occupations by the Louisiana Workforce Commission could provide a mechanism to dedicate funding to the course and provide training for the eight students who require certification for job advancement.

Advantages of a formula funding model for noncredit education include program sustainability, strengthened connections between the college and the local economy, a clear vision by the college directing workforce training efforts, and an avenue for innovation and testing new courses. In addition, colleges throughout the nation are beginning to document or transcript noncredit workforce education. This process of transcripting as applied in higher education provides students an opportunity for future degree attainment in recording course completion and knowledge acquisition. In her study Noncredit Enrollment in Workforce Education, Van Noy reports that states are considering policy supportive of transcription of noncredit workforce education.

Washington is trying to develop a way to record skills and knowledge to enable credit for prior learning. Maryland is also interested in standardizing a noncredit transcript. Other states mentioned an interest in electronic transcripts or electronic forms that would allow transcripts to travel with a student from high school through college to the job site (Van Noy et.al., 2008, p. 25).

As the budgetary landscape is changing for community and technical colleges in Louisiana, noncredit education activities are impacting college structures simultaneously providing new platforms for change. The following findings and considerations will serve as key policy factors impacting noncredit workforce development strategies in Louisiana's community and technical colleges:

- Innovation is serving as a primary component in the design of organizational structures that support noncredit workforce training strategies.
- Noncredit workforce training is playing an increasing role in strategic planning efforts at participating colleges.

- Colleges are using noncredit education as a mechanism for introducing emerging training as they struggle during difficult economic times.
- A funding formula structure for noncredit education can sustain both credit and noncredit programs, strengthen business and industry partnerships, and enhance college organizational structures.

Accounting for and articulating the impact of noncredit education will affect decision making by college leaders as organizational structures continue to evolve. An assessment of noncredit education best practices and a noncredit education impact study of Louisiana's community and technical colleges is a first step in the process of effective policy creation.

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APPENDICES

Appendix A – Informed Consent

Dissertation Title:

A STUDY OF ORGANIZATIONAL STRUCTURES IMPACTING NONCREDIT EDUCATION AND THE EFFECTS ON DETERMINING WORKFORCE DEVELOPMENT STRATEGIES IN LOUISIANA'S COMMUNITY AND TECHNICAL COLLEGES

Contact Information:

William S. Wainwright, Doctoral Student and Researcher, Department of Educational Administration, University of New Orleans, New Orleans, Louisiana 70148. Contact Information: (985) 969-2374, e-mail: <u>wswainwr@uno.edu</u>.

Research project is in partial fulfillment of dissertation requirements, and under the supervision of Dr. Marietta Del Favero, Associate Professor, Graduate Coordinator, Educational Administration/Leadership/Doctoral Program, University of New Orleans, New Orleans, LA 70148. Telephone: (504) 280-6446. <u>mdelfave@uno.edu</u>.

Purpose:

The study will be designed to identify implications of organizational structures impacting noncredit education and the effects on determining workforce development strategies in Louisiana's Community and Technical Colleges. By doing so, this study will provide a research base for policy considerations that may have a profound influence on the long-term effectiveness of the Louisiana Community and Technical College System in meeting the workforce training needs for the State of Louisiana.

While recent studies focus on implications of increased noncredit enrollment growth, there is little research on the overall impact on higher education institutions. Additional considerations include the lack of research on policy that supports or hinders noncredit enrollment trends coupled with inadequate formula funding models that lead to competition among divisions of credit and noncredit education. A research study that focuses on how these issues impact Louisiana's community and technical colleges can result in recommendations that influence policy development, positive organizational change, and improved strategies to address workforce development needs. Current budgetary shortfalls increase the significance in the role of noncredit workforce education as a potential source of additional revenue important now more than ever.

Procedures:

College leaders and workforce development directors in sample colleges will participate in interviews conducted by the researcher. Interviews will last approximately one hour and will be taped with notes transcribed. Participants will have an opportunity to review transcribed notes and provide clarification if needed. Tapes of the interviews will be maintained and utilized for the sole purpose of the study. Interview questions are structured to assess college organizational structure, decision making by college leaders, and workforce development strategies related to noncredit workforce education.

Risk to Participants:

Every consideration will be taken to minimize risk to participants. Participants may experience anxiety when providing information related to reporting challenges or obstacles in fear of repercussions from administration at both levels. Confidentiality and participant review of transcription will help to alleviate these concerns. The researcher will make every effort to keep all interviews confidential and ensure that results are accurate and effectively communicated throughout the study.

Benefits to Participants:

Benefits to participants include information and discussion related to functional responsibilities that will result in reflection of current practices and desired outcomes related to implementation of workforce development strategies by workforce development directors. In addition, participants will be exposed to national trends in noncredit workforce education and college leaders will be presented with theoretical perspectives related to decision making and organizational structure.

Confidentiality:

Participation is voluntary. All participants can exercise the right to withdraw from participating in the study at any time. College names and participant names will not be disclosed in the study. All interviews will be recorded and transcribed. Tapes will be destroyed upon completion of the study. In the event the study is published, participants will be notified and protected in the process.

Consent:

I have been informed of purpose of study, interview procedures, risk, benefits, and confidentiality surrounding this study. By signing this form, I give my permission to participate in this study.

Signature of Participant	Name of Participant (print)	Date	_
Signature of Researcher	Name of Researcher (print)	Date	

Appendix B – Introduction Letter to Participant

Participant Name College Address Address

Dear Research Participant:

I am currently a doctoral student enrolled at the University of New Orleans in the Higher Education Administration doctoral program. I am conducting research related to my dissertation topic: A STUDY OF ORGANIZATIONAL STRUCTURES IMPACTING NONCREDIT EDUCATION AND THE EFFECTS ON DETERMINING WORKFORCE DEVELOPMENT STRATEGIES IN LOUISIANA'S COMMUNITY AND TECHNICAL COLLEGES. I am conducting research under the supervision of my Major Professor Dr. Marietta Del Favero. Dr. Del Favero can be contacted at 504-280-6446 in addition to e-mail at <u>mdelfave@uno.edu</u>.

In accordance with qualitative research methodology, I am conducting a case study involving your college to gather information on decision making by leaders, organizational structure, and implementation of workforce development strategies. It is my desire to produce a relevant research contribution that will enhance policy considerations and support noncredit education workforce development strategies in Louisiana's community and technical colleges.

A primary goal of this study is to capture decision making processes and define organizational structures supportive of implementation of noncredit workforce education strategies. Your expertise will provide invaluable insight into current structures and processes and determine evidence of success and considerations for future policy development. Due to your role in the college and job function, you have been asked to participate in the study. If you are interested, I would like to conduct an interview in the near future accommodating to your schedule. It is important to note that participation is voluntary and you are able to decline at any time during the process.

It is my desire that you will find this research study of interest and choose to participate. Your contributions are of great value to the significance of the study. If you wish to participate, I will contact you in the near future to schedule a time and date for an interview. I truly value your support of this very important issue.

Sincerely,

William S. Wainwright, Doctoral Candidate University of New Orleans (985) 969-2374 wswainwr@uno.edu

Appendix C – Gate Keeper Letter & Consent

On Wed, Jan 26, 2011 at 2:51 PM, Sullivan, Monty <msullivan@lctcs.edu> wrote: Approved.

Will, please let me know how we can assist in this effort. It is not only import to the system as a member of our leadership team is working to complete a doctoral degree. The topic of your study is particularly relevant to our current work. We stand ready to assist in any way necessary to move this study to completion.

Monty

From: William Wainwright [mailto:<u>william.wainwright@northshorecollege.edu</u>] Sent: Wednesday, January 26, 2011 1:37 PM To: Sullivan, Monty Subject: Request for Consent to Initiate Research Proposal

Good Afternoon Dr. Sullivan,

Please accept this e-mail as a formal request for consent to study four community and technical colleges within the Louisiana Community and Technical College System (LCTCS). As you know, I am a doctoral student enrolled at the University of New Orleans seeking to attain a Doctor of Philosophy degree in Higher Education Administration. My research question is centered on the absence of funding formula policy for noncredit education as a factor in determining workforce development strategies in Louisiana's community and technical colleges. As Executive Vice President for LCTCS, your approval to go forward with the study will allow me to prepare participant introductory letters for the Chancellors of Bossier Parish Community College and SOWELA Technical College.

Upon your approval, I intend to work closely with the selected Chancellors and Regional Directors to educate them on the research issue and schedule interviews and college visits. Thank you for your time and consideration with this request. Please respond with your approval or in the event you have questions, please don't hesitate to contact me.

Sincerely,

William S. Wainwright, M. Ed. Northshore Technical College "Building Futures" william.wainwright@NorthshoreCollege.edu<mailto:william.wainwright@NorthshoreCollege.edu> www.NorthshoreCollege.edu<http://www.northshorecollege.edu/> 985.732.6640 Ext: 118

Appendix D – Interview Questions

Individual interviews with the college leader (Chancellor/Regional Director) will begin the study with the following open-ended questions.

- 1. Describe your current decision making practices with regard to organizational structures supportive of noncredit workforce training programs?
- 2. How might these practices be different if you had access to noncredit formula funding?
- 3. How does existing formula funding policy impact decision making?
- 4. How does existing formula funding policy impact the structure and organization of the college?
- 5. How does the existing college organizational structure support meeting business and industry needs?
- 6. How does the existing structure support the execution of workforce development strategies?
- 7. How are the organizational structures within your institution positioned to support the workforce development division?
- 8. What are the benefits and challenges of providing noncredit workforce training programs to the college?
- 9. What do you consider the top three challenges for expanding workforce development divisions in Louisiana's community and technical colleges?

Individual interviews will be conducted with Chief Workforce Development Officers at each college consisting of the following questions and statements.

1. Describe the organizational structure of the workforce training division at your college.

- 2. What is the role of noncredit education in meeting business and industry needs?
- 3. How is that role impacted by the current funding process for these courses?
- 4. How are noncredit students tracked?
- 5. What impact does the workforce development division have on the college?
- 6. What do you consider the top three challenges for expanding workforce development divisions in Louisiana's community and technical colleges?

University Committee for the Protection of Human Subjects in Research University of New Orleans

Campus Correspondence

Principal Investigator:	Marietta Del Favero
Co-Investigator:	William S. Wainwright,
Date:	May 18, 2011
Protocol Title:	"A Study of Organizational Structures Impacting Noncredit Education and the Effects on Determining Workforce Development Strategies in Louisiana's community and Technical Colleges"
IRB#:	04May11

The IRB has deemed that the research and procedures described in this protocol application are exempt from federal regulations under 45 CFR 46.101category 2, due to the fact that any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Exempt protocols do not have an expiration date; however, if there are any changes made to this protocol that may cause it to be no longer exempt from CFR 46, the IRB requires another standard application from the investigator(s) which should provide the same information that is in this application with changes that may have changed the exempt status.

If an adverse, unforeseen event occurs (e.g., physical, social, or emotional harm), you are required to inform the IRB as soon as possible after the event.

Best wishes on your project. Sincerely,

VITA

William S. Wainwright is a native of Lafayette, Louisiana. He received his B.S. degree from the University of Louisiana at Lafayette in Criminal Justice and his Master's degree from Northwestern State University of Louisiana in Adult Education. Mr. Wainwright has also completed certification as a Global Career Development Facilitator from Kennesaw State University in Georgia. He currently serves as Chancellor of Northshore Technical Community College and has served in previous roles with the Louisiana Community and Technical College System as Campus Dean, Dean of Workforce Development, and Regional Director. Career highlights include serving as Self Study Trainer for the Council on Occupational Education, Accreditation Liaison for Jeddah Community College in Jeddah, Saudi Arabia, and publication in the Community College Journal of Research and Practice.