A CASE STUDY OF NONCREDIT TO CREDIT PATHWAYS AT COMMUNITY COLLEGES

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A CASE STUDY OF NONCREDIT TO CREDIT PATHWAYS AT COMMUNITY COLLEGES

BY

AMY GRZYBOWSKI

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN EDUCATION

UNIVERSITY OF RHODE ISLAND

AND

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Abstract

A high school diploma is no longer the path to financial stability; a person needs at least a postsecondary degree or credential to earn a median income (Carnevale, et al. 2019). Community colleges need to work to create opportunities for all students, including those that may enter school as an adult, and not straight from high school, to attain a certificate or degree. This study examines two public community colleges in the United States that have both noncredit and credit programs that are in different stages of advancement of clear, articulable pathways. The purpose of this qualitative case study was to explore the process that stakeholders in two community colleges describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree. The findings will contribute to the field of higher education and policy by assisting institutions with a tool to create a framework to design and implement noncredit to credit pathways. If community colleges create opportunities for students to bridge noncredit to credit programs by articulating credit for the time invested and competencies learned, more adult students will be able to attain certificates and degrees, thus increasing their human capital and their ability to seek higher-paying jobs.
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Dedication

This dissertation is dedicated to both my mother and Nana. My mother has always provided the support and encouragement I needed to accomplish all my goals. Most importantly, she drops everything for her grandchildren! My Nana is watching down from heaven as I finished this milestone.
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CHAPTER ONE

Introduction

A high school diploma is no longer the path to financial stability; a person needs at least a postsecondary degree or credential to earn a median income (Carnevale et al., 2019). Community colleges, or two-year institutions, are designed to provide access to all students; therefore, they need to create clear opportunities for all, including those that may enter school on a non-traditional path, to attain a certificate or degree. This study examines two public community colleges that have both noncredit and credit programs and are in different stages of advancement of clear, articulable pathways to degrees. Many adults choose noncredit programs for a quick solution to get a job; however, if students are not able to utilize their credentials as post-secondary attainment or a bridge from noncredit to credit programs for completion of a degree, then there is a subset of individuals that will not meet the milestone required for most jobs of the future (Maier, 2012). However, according to Education Strategy Group (ESG) (2020),

if students in non-credit credential programs were encouraged and supported in pursuing a degree program upon completion of their certificate or certification program, they could improve their lifetime earnings, potential for promotion, social and economic mobility, and competitiveness in the marketplace (p. 4).

Jacobs and Dougherty (2006) estimated that three-fifths of community college students are enrolled in noncredit programs, however, sometimes these programs may result in limited opportunities for career advancement (Bragg & Krismer, 2016). There are low transfer rates between students who complete noncredit programs and degree-granting programs (Xu & Ran, 2020). One solution to low transfer rates are career
pathways. They support a “vertically and horizontally integrated system of workforce training that stretches from noncredit adult education through the baccalaureate” (Jacobs & Dougherty, 2006, p. 60).

**Statement of the Problem**

Community colleges began offering noncredit programs in the 1950s with the goal to create a training side to the community college mission and spark the economic development of states (Friedel, 2008; Jacobs & Dougherty, 2006). In many cases, these workforce development programs are separate from the academic side of the community college (Friedel, 2008; Jacobs & Dougherty, 2006). This organizational disconnect is one reason why it is difficult for noncredit programs to seamlessly transition a student into a credit-articulating program. Noncredit programs are often not even provided prior learning credit toward a degree, thus resulting in a student having to repeat coursework or competencies if they transfer into a degree program (ESG, 2020). According to ESG (2020), this has created a stratification between students, faculty, and staff between the divisions at community colleges. More than half of noncredit students are students of color, thus exacerbating equity gaps in degree completion and also not providing the necessary wraparound support services for students to be successful (ESG, 2020; Xu & Ran, 2020).

Many students that enter noncredit programs at community colleges are low-income, immigrants or English language learners, or displaced workers (Jacobs & Dougherty, 2006). Some students utilize noncredit education as a remedial opportunity to upskill as they are not yet ready for credit-articulating courses (D’Amico, 2017; Ryder &
Hagedorn, 2012). Students often start a noncredit program because of their flexible scheduling, lower cost, and provide the skills needed to get a job (Arena, 2013; Van Noy et al., 2008). However, students in noncredit programs are not afforded the same student services as degree students such as advising, tutoring, career services, as well as other student services (ESG, 2020).

There are tremendous economic benefits for students to pursue additional education after a noncredit program. Though there are still gaps in earnings between white and people of color, Carnevale et al. (2019) share that on average a Black/African American will make $53,000 whereas a Hispanic/Latino will earn $55,000 with “middle skills”, which they define as education post-high school but not earning a bachelor’s degree. With a bachelor’s degree or higher, this increases to $65,000 annually. Another study shows that lifetime earnings on average for a high school diploma are $1,304,000, which increases to $1,547,000 with some college/no degree but increases to $2,268,000 with a Bachelor’s degree which is 74% more than those with a high school diploma (Carnevale et al., 2013). Any credits articulated for noncredit programs will assist students on their path to additional educational attainment and thus an increase in lifetime earnings.

Employers often work with community colleges to create noncredit programs because the workforce divisions are responsive to industry needs, often provide the necessary hands-on learning, and can be created and launched quickly (Jacobs & Worth, 2019). Community colleges benefit from this relationship by leading in what the labor market demands to support upskilling and reskilling in the workforce (Jacobs &
Dougherty, 2006). The workforce divisions are also able to pilot programs because taking them through the academic curriculum review process can be lengthy (Van Noy et al., 2008). Community colleges also use these programs as an additional way to generate revenue, particularly as state funding has decreased (Jacobs & Dougherty, 2006). However, faculty are often concerned by noncredit to credit articulation because they want to ensure alignment with objectives in existing courses as well as the faculty perception that noncredit courses may lack the rigor of credit coursework (Fouts & Mallory, 2010; Jacobs & Dougherty, 2006; Price & Sedlak, 2018).

Researchers have highlighted the benefits of noncredit to credit pathways (NC-CP), shared best practices throughout the nation, and highlighted some of the challenges community colleges may face in designing and implementing NC-CP (Arena, 2013; ESG, 2020; Ganzglass et al., 2011; Van Noy et al., 2008). D’Amico et al’s (2017) study illustrated that most community colleges do not have many, if at all, non-credit to credit articulation opportunities. With or without NC-CP, Xu and Ran (2015) found that only 7.2% of students that completed a noncredit program continued into a credit articulating degree program. Yet not enough is known about perceived obstacles and facilitators for these pathways from the perspectives of higher education administrators, faculty, and employers and further, what they view as ways to overcome those obstacles and implement clear pathways. The purpose of this qualitative case study is to explore the process that stakeholders in two community colleges describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree.
Significance of the Study

The results of this multiple-case study could provide a framework for how institutions can design and implement NC-CP. This could attract the attention of students who enter noncredit programs to gain competencies for a job and may not be thinking about career advancement or degree attainment. As highlighted in the review of literature there are several best practices. ESG (2020) provides a framework for community colleges but does not explicitly acknowledge how the community colleges they highlighted capitalized on factors that may facilitate and overcome obstacles in implementation. ESG (2020) also acknowledges that not one community college has not implemented its framework in its entirety and therefore is not seamlessly implementing NC-CP. There is a gap in the literature on the process of creating pathways from NC-CP for students. If community colleges create opportunities for students to bridge between noncredit to credit programs by articulating credit for the time invested and competencies learned, more adult students will be able to attain certificates and degrees, thus increasing their human capital and their ability to seek higher-paying jobs.

Organization of the Dissertation

There are five chapters in this dissertation. Chapter One provides the reader with the background information, context of the problem to be explored and the importance of the study. Chapter Two reviews the literature regarding community colleges' role in noncredit education. It starts with the theoretical framework, provides a background on community colleges’ role in noncredit education, highlights the benefits and obstacles of noncredit to credit programs, and concludes with best practices in this area. Chapter
Three outlines the methodology used to select the cases and the participants. Chapter Three also outlines how the researcher collected and analyzed the data and discusses how the trustworthiness of the study was validated. Chapter Four provides a program-level logic model of each case and subsequently a cross-case analysis that addresses the research questions from the study. Lastly, in Chapter Five, the researcher reviews the findings and the implications of implementation at community colleges and suggestions for future research that can enhance the field of workforce and economic development.

**Definitions of Important Terms and Concepts**

**Accreditation** - the recognition that a postsecondary institution has met a standard of quality as set out through a private educational association (U.S. Department of Education, 2023)

**Career pathways** - structured programs for students to complete college and obtain employment with guidance, contextualized learning, and technical education (Bragg & Krismer, 2016)

**Community college** - sometimes called a junior college, a higher education institution, government-subsidized and in localized areas where students can take adult education courses or earn certificates or up to an associates’ degree (Merriam-Webster)

**Credit-articulating programs** - programs that lead to an associate degree (ESG, 2020)

**Noncredit programs** - short-term educational opportunities for workforce development or basic education that do not result in college credit (Arena, 2012; Price & Sedlak, 2018)

**Noncredit to credit pathways (NC-CP)** - programs of study that may start with a noncredit program and sequence into a credit-bearing program, allowing a person to work toward a certificate or degree
Prior learning assessment – evaluation of college-level learning through previous training or life experience for credit (Hayward & Williams, 2015)
CHAPTER TWO

Literature Review

Theoretical Framework

The theoretical framework for this research study is organizational change theory. Choi and Ruona (2011) argue that “organizations are in a continuous state of change and, to survive, they must develop the ability to continuously change themselves incrementally and, in many cases, in a fundamental manner” (p. 47). Higher education institutions must incorporate change to satisfy the learners, the community, and their employer partners (Nordin, 2012). Change is not always easy or successful. Leaders are continuously working to implement change within their organizations or institutions; however, it is estimated that at least “two thirds of change projects fail” (Choi & Ruona, 2011, p. 47). This is often due to a flawed implementation effort and not the actual change itself (Choi & Ruona, 2011; Kotter, 2012). This also happens when leaders fail to recognize the importance of individuals within the organization in the process and that the change is appropriate for the organization or institution (Choi & Ruona, 2011; Nordin, 2012). This study most closely aligns with the organizational development perspective and Lewin’s theory of Group Dynamics and his three-step change model. The study will also explore Armenakis and Harris’s (1999, 2009) five key beliefs which cross-pollinate with Lewin’s three-step change model, both of which relate to this study.

Organizational Development (OD) is a long-term, system-wide view at change within an organization (Rothwell et al., 2015). Strategic changes that occur at community colleges that hope to effectuate change need to consider OD. Boyer and Crocket (1974)
argue that the people within the “system” implement change “to cope with changing demands the environment makes on the organization” (p. 340). OD is intended to solve complex challenges within an organization and utilizes education to encourage new approaches (Rothwell et al., 2009). Community colleges are often reacting to the ever-changing demands both in shifting politics and meeting the economic development needs of the region, however, the internal structure of the college needs to be considered when implementing change.

OD requires the “effective utilization of human resources of the organization” (Boyer & Crocket, 1973, p. 340). OD is described as a bottom-up approach where the change is happening because the conditions whether internally or externally require the change to occur (Rothwell, 2015). However, Rothwell et al. (2009) also argue that there does have to be at least general approval from the top for effective OD. Rothwell (2015) states that management is not hands-off in organizational development, but that change is more likely to be successful when employees are part of the planning, decision-making, and implementation of the change. This will organically create buy-in and culminate in optimizing the results and subsequent evaluation of outcomes. It is vital, however, for management to maintain their commitment to the change. Choi and Ruona (2011) discuss how OD is often focused on increasing the effectiveness of an organization, however it is an intentional change for “enhancing individual development and improving organizational performance (p. 47).

Lewin (1947) argues in his theme of Group Dynamics, that one must focus on the group, instead of the individual to elicit change. In an organization, “the individual in
isolation is constrained by group pressure to conform” (Burnes, 2004, p. 983). This is especially true in a community college setting where the pressures of other faculty members may make it difficult for individual faculty to be more innovative or lean into noncredit to credit pathways. Specifically, “the different treatment and experience of students, faculty, and staff in noncredit programs have led to both a real and perceived stratification among stakeholders at a community college” (ESG, 2020, p. 6). This stratification has made it difficult for cross-collaboration. However, it cannot be overlooked how vital it is for there to be a change in the individual faculty to elicit the necessary change.

Lewin’s (1947) three-step change model highlights process and planned changes which requires a phase of unfreezing, changing, and then refreezing (Hussain et al., 2016). Lewin acknowledged in his research, in what he called “Force Field Theory” that there are both driving forces and opposing forces that try to counterbalance each other to maintain the status quo (Raina, 2018, p. 26). This theory requires an organization to acknowledge they are moving something within their organization from an undesired state to a desired state.

Prior to the first step, it is important that the organization is in a state of readiness. The leadership needs to communicate why there is a need for change and the benefits of the change (Armenakis & Harris, 2009; Nordin, 2012; Self & Schraeder, 2008). The organization and the individuals within the organization need to agree that the proposed change is the correct course of action. Without this part of the process, not only will the change likely fail, but other consequences can occur such as “reduced employee morale,
diminished commitment and increased cynicism” (Self & Schraeder, 2009, p. 168). Once the organization is ready for change, the first step, unfreezing, requires the “equilibrium to be destabilized” to unlearn behavior (Burnes, 2004, p. 985). Schein (1996) articulates this step as removing any restraining forces which can be from within the organization or addressing personal concerns. This unfreezing step is similarly documented in others’ research on organizational change as “building momentum, warm-up or defrosting activities, or gaining buy-in to the change effort” (Choi & Ruona, 2011). This requires the organization to stop the status quo and can be very difficult. Choi and Ruona (2011) argue that there is a need for individual readiness to initiate this step. It is also important to consider the relationship between both individual and organizational change. Change can only occur when individuals collectively change their behavior, however, organizational factors can influence the outcome such as the collective view of the “perceived credibility of the organization, the perceived credibility of those leading the change, and also the organization’s history or track record related to change (Self & Schraeder, 2008, p. 170). Both the individual and the organization need to be ready for change to occur successfully.

The second step, “moving” is a process of trial and error (Burnes, 2004, p. 986). This is the opportunity to establish new behaviors or a new culture within the organization. Armenakis and Harris (2009) argue for action research “by involving change recipients in the diagnosis, interpretation, and remediation of challenges facing the organization” (p. 130). Including individuals within the organization as part of the solution will increase the likelihood of success and sustainability (Armenakis & Harris,
Researchers of transformational leadership, such as Deetz et al. (2000) argue that employees that believe in the mission are “more likely to go forward with actions that are consistent with the company goals, even when these actions are not necessarily in line with individuals or departmental priorities” (Nordin, 2012, p. 240). The final step is refreezing to create a new operational experience. Ideally, the new norms will have been established and adopted by the organization. Employees are engaged by leadership during this process with transparency around the intended changes. See Figure 1 for a depiction of Lewin’s three-step change model with the synthesized information.

**Figure 1**

*Lewin’s Three Step Change Model*

Some researchers, however, argue that organizational change theory has evolved from Lewin’s themes focusing on the individual to the “organizational structure and culture” that ultimately stymies change and inertia (George & Jones, 2001, p. 419).
George and Jones (2001) argue inertia is a result of routines that appear to work in the short term, however, without adaptation, the organization could be replaced. Self and Schraeder (2008) describe these routines as “entrenched because they have been successful” (p. 177). In a community college, creating noncredit to credit pathways would likely be considered developmental change. The changes to the organization are small and do not drastically impact the current working environment (Raina, 2018). Noncredit and credit programs are often different divisions within community colleges and would require the intentional collaboration of individuals within each division to create noncredit to credit pathways.

“Organizational change explains the movement of an organization from the known state (current state) to the unknown (Desired future state) state” (Hussain et al., 2016, p. 123). The desired state must ensure benefit to all while mitigating risk (Raina, 2018). Hussain et al. (2016) acknowledge that change management is a continuous process, often reacting to internal and external factors. Schein (1996) further argues “The key to effective change management, then becomes the ability to balance the amount of threat produced by disconfirming data with enough psychological safety to allow the change target to accept the information, feel the survival anxiety, and become motivated to change” (p. 61). Grover and Miller (2018) stipulate that community colleges need to “hire and support visionary leaders” who lean into future workforce needs and the skills needed in the workplace (p. 174). Jack Walker et al. (2007) confirm that competition in today’s environment would require any business, including community colleges, to remain agile for long-term survival of the business. The structure of the governance at a
community college will have an impact on how nimble they can be to address industry needs (Baker, 2013). Community colleges need to react to employer demand for education and training focused on competencies, as well as the internal pressures of the faculty who create degree programs that include general studies and program-specific coursework.

Organizational development and organizational change theory articulate the complex nature of change in a community college system and why creating NC-CP may be at different levels of implementation. In this study, the researcher will argue that organizational development and organizational change theory impacts community colleges' ability to unite the workforce and academic divisions to create noncredit to credit programming. ESG (2020) argues it is vital for community colleges to “align departments and governance” (p. 10). The literature below highlights the benefits and the obstacles of designing and implementing NC-CP, however, creating multiple pathways for students may increase the completion of postsecondary degrees and will provide a positive return on investment for both the student and the institution.

**Literature Review**

**Role of Community Colleges in Non-Credit to Credit Programs and the Workforce**

Community colleges are designed to provide access to all students and because of this they are often serving the nontraditional student. To provide opportunities to students and employers, community colleges have been providing non-credit programs since the 1950’s and 1960’s (Friedel, 2008; Jacobs & Dougherty, 2006). These programs emerged to create a training arm to the community college mission and spark economic
development of states, particularly in the 1980s when many manufacturers in the United States began outsourcing oversea and the nation’s agriculture industry was also in crisis (Friedel, 2008). To try and encourage businesses to stay or to locate within a community, states offered “subsidized training and tax incentives” (Friedel, 2008, p. 46). This public policy shift was an incentive for community colleges to expand their noncredit offerings. Most of this training was conducted in a separate division from the academic side of community colleges and allowed for great flexibility in the creation of new programs (Friedel, 2008; Jacobs & Dougherty, 2006).

Jacobs and Dougherty (2006) argue that there are two divergent thoughts on how community colleges should support the workforce. One position is new vocationalism that argues “community colleges should be the gatekeepers for the skilled jobs of the future” whereas others feel that community colleges should focus on students such as low-income, immigrants, and displaced workers (Jacobs & Dougherty, 2006, p. 54). In many states, community colleges support both and are a lead entity in workforce development. Friedel (2008) argues, “They strengthen the economic base and reskill the workforce by helping adults prepare for the world of work or upgrade their work skills” (p. 47). Further, noncredit programs should be designed with career pathways in mind. Career pathways are structured programs for students, aimed at students to ultimately complete college and obtain employment with guidance, contextualized learning, and technical education, however, they do allow for students to complete industry-recognized credentials along the pathway (Bragg & Krismer, 2016). These pathways are an opportunity to assist students in a career and not just a low-level entry job as is often the case of most noncredit programs. Employers often look to community colleges to create
the pipeline of students, as well as continue to offer skill development as an individual progresses in their career (ESG, 2020).

Grover and Miller (2018) articulate the need for community colleges to be creative in braiding funding to support workforce development programs. It is imperative that community colleges remain nimble and responsive to employer needs, establishing programs that result in industry-recognized credentials. Designing the programs with employer partners assures that students will ultimately be hired into jobs (Grover & Miller, 2018). However, it is imperative to note that noncredit programs do not provide the same opportunities for students at community colleges. Students in noncredit programs likely do not have access to the same services as matriculating students such as financial aid and other student support, creating an inequitable environment (ESG, 2020).

**Types of Noncredit Programs**

Community colleges are intended to serve anyone in the community. Ryder and Hagedorn (2012) refer to noncredit students as those “left behind” (p. 22). Often noncredit students “are low-performing high school students, individuals with low basic skills, and those who have prematurely left high school prior to earning a diploma” (Ryder & Hagedorn, 2012, p. 22). Noncredit programs provide a structure where community colleges can train or educate nontraditional students that may be looking to enter the workforce, upskill in their current job, or need assistance with pre-college work (D’Amico, 2017; Friedel, 2008; Jacobs & Dougherty, 2006). Most notably for this study, the focus is on occupational training. Occupational training is focused on training for particular skills to enter the workforce or additional skills if an incumbent worker (D’Amico, 2017). These programs are often employer-driven, and based on “industry
demand” (D’Amico, 2017, p. 60). Pre-college programs, on the other hand, can be GED preparation, English as a Second Language instruction, or other remediation programming to assist a student in preparing for college coursework or the workforce (D’Amico, 2017).

Students in Noncredit Programs

Many noncredit students are “adult learners, immigrant students, and individuals identified as low-income and underserved” (Davaasambuu et al., 2020, p. 58). To further elaborate on this, from a study conducted by Xu and Ran (2020), noncredit students are from lower socio-economic backgrounds, and the average age of students in a noncredit program is 34 versus 22 for students in credit-bearing programs. Also, according to Xu and Ran (2020), over half of noncredit students are people of color and only 23% earned a high school diploma versus 93% in credit-bearing programs.

Students entering noncredit programs often do not have the intention of transferring into a credit-bearing program. Xu and Ran’s (2020) sample illustrated that only 8.1% of students indicated that they intended to obtain a certificate, degree, or transfer to a bachelor’s degree program. Further, faculty often are not inclined to advance noncredit students' interest in transferring to a bachelor’s degree-granting institution. However, institutions are striving to create more articulation agreements between occupational programs and certificates and degrees (Jacobs & Dougherty, 2006).

Benefits of Noncredit to Credit Programs

Benefits for Individuals

There are many benefits to individuals enrolling in noncredit programs. A noncredit program may be the motivator for a student who may not otherwise have ever
attended community college (Jacobs & Dougherty, 2006). However, some noncredit programs, particularly those leading to a job in science, technology, engineering and math, sometimes require higher skill levels than that of the average student who attends community college (Jacobs & Dougherty, 2006).

It is essential to understand why many individuals enroll in noncredit programs instead of directly into credit-bearing programs. Many adult students that enroll in noncredit programs have a focused goal of gaining the skills needed to get a job. The U.S. Department of Education in a 2016 Adult Education and Training Survey reported that 80% of adults who have completed a noncredit certificate found them “very helpful with getting a job, and staying marketable in the current job market” (Davaasambuu et al, 2020). Noncredit programs provide flexibility and convenience of the coursework for adult students and are lower in cost than credit-bearing coursework (Arena, 2013; Van Noy et al., 2008).

Arena (2013) noted that enrollment in noncredit programs is higher annually than that of credit-bearing programs. These heightened enrollment numbers can be used as an opportunity to encourage students to continue into a certificate or degree-granting program. Noncredit programs can also be used as career pathways that further assist the student when entering the workforce by illustrating the on and off-ramps of future educational opportunities (Alssid et al, 2002). Another benefit for the individual student of noncredit programs is that postsecondary credentials increase lifetime earnings, career advancement, and make a student more competitive in the workforce (Bishop, 2019, ESG, 2020; Van Noy et al., 2008). Ganzglass et al. (2011) contended that while many noncredit programs do not lead to a postsecondary credential, it is important to explicitly
highlight the value of these programs to students and institutions. Noncredit programs typically provide the needed competencies for an entry-level position.

**Benefits for the Workforce**

The noncredit division of the community college is responsive to industry needs. Many of the noncredit programs are aligned with local industry and work with employer partners to design the curriculum to address competencies needed on the job. Further, these programs are designed with hands-on learning built into the curriculum to simulate the workplace (Jacobs & Worth, 2019). These training programs can be both for new hires or incumbent workers. Many businesses choose to relocate their businesses based on the skilled labor available in the region (D’Amico, 2017). Community colleges play a large role in educating the workforce. According to Grover and Miller (2018), noncredit programs “play[s] an important role in regional economic development” (p. 171).

**Benefits for Community Colleges**

Workforce divisions, sometimes referred to as continuing education within an institution, are often the units within the college that are entrepreneurial, innovators, and most engaged with community partners and industry (Baker, 2013). The creation and expansion of workforce divisions at community colleges has strengthened relationships with employers and has afforded community colleges the ability to lead in what the labor market demands to support upskilling and reskilling in the workforce (Jacobs & Dougherty, 2006). Noncredit programs are also an opportunity for community colleges to pilot new programs before taking them through the lengthy curriculum review process (Van Noy et al., 2008).
These divisions are creating new noncredit programs to support workforce needs, which brings in additional revenue to the institution and helps counteract the decreased state funding received by the colleges (Jacobs & Dougherty, 2006). Due to decreased state funding, many community colleges have had to “prioritize programs that have financial stability” which could include non-credit training programs or high-enrollment academic programs (Grover & Miller, 2018, p. 170). On the other hand, states often provide funding, often through grants, to support regional industry-specific training and community colleges are at the forefront of these opportunities (Grover & Miller, 2018). If both the credit and noncredit divisions of the community college work closer together there is the opportunity for shared resources such as equipment, faculty, and employer engagement (Downing, 2020).

Further, prior research also argues that NC-CP are beneficial to community colleges (ESG, 2020; Lorenzo et al., 2018). Community colleges rely on tuition and state and federal aid that supports credit-bearing programs. Students that transition from non-credit certificate programs to degree programs would provide additional tuition for the institution (ESG, 2020). Some colleges set up the noncredit division as a self-sustaining arm of the community college because the tuition costs for each program can vary based on its funding source such as a grant or paid directly by the employer (D’Amico, 2017). In many cases, the noncredit programs are revenue-generating, though it is still not their primary source of income (Lorenzo et al., 2018).

**Obstacles for Community Colleges**

Most states are not currently implementing noncredit to credit articulation (D’Amico et al., 2017). Research illustrates that there are three main obstacles for
community colleges to create NC-CP: a disconnect across organizational systems, concerns of program review, and unreliable funding sources (D’Amico et al., 2014; ESG, 2020; Ganzglass et al., 2011; Jacobs & Dougherty, 2006; Price & Sedlak, 2018; Van Noy et al., 2008).

**Disconnect Across Organizational Systems**

Some community colleges have a separate noncredit or workforce division, and some integrate these programs into the credit-bearing divisions of their institution. If the college has a separate workforce division that reports directly to the president, this can both empower the division and illustrate the importance of the noncredit programs, as well as “negatively impact collaboration” with the academic side of the institution (Samuels et al., 2019, p. 4). If they are separate, the workforce division can create programs without the formal curriculum review process and generally work directly with employer partners (ESG, 2020). Samuels et al. (2019) also stated that the integration of noncredit programs into various disciplines may “threaten the necessary focus for noncredit programs that target specific populations, seek different outcomes, and employ alternate funding models” (p. 5). The workforce division, regardless of how the governance is structured, will be more successful if it is adaptable to meet internal and external partners needs and expectations (Baker, 2013). Both credit and noncredit programs will not perform optimally if there is a disconnect or competition. As a result, students may miss out on opportunities to learn about certificates or degree programs that could assist in career advancement (ESG, 2020).
Concerns of Program Review

In addition to the disconnect in organizational structures, program differences also impact NC-CP, particularly in the review and alignment of the noncredit programs with existing credit-articulating programs. There is no systematic way for faculty to review and align competencies in noncredit programs to those that are taught in credit-bearing coursework often due to a lack of organizational alignment (Price & Sedlak, 2018). Also, faculty members often comprise curriculum review committees or are engaged in the review process, and some faculty perceive that noncredit programs do not have the same standards and may lack the rigor of credit coursework (Fouts & Mallory, 2010; Jacobs & Dougherty, 2006). Faculty can also perceive noncredit programming as “ancillary” to the mission of the community college (Fouts & Mallory, 2010, p. 182).

Another barrier in the program review process lies in the process of articulating credit for noncredit programs because credit courses are often measured on credit hour or seat time often by both accrediting agencies and institutions (Ganzglass et al., 2011). There is a need for a “competency-based framework” which could drastically reduce the time for completion for some students by allowing students with previous experience to continue forward as they prove their competence (Ganzglass et al., 2011, p. 12). Similarly, some noncredit programs may consist of competencies combined from several courses while also including practical or skill-based learning. This makes it difficult for faculty to review coursework, for students to know what they have earned for competency, and for employers to understand the difference between the non-credit program and similar credit-articulating courses (ESG, 2020).
Even more frustrating for students is that sometimes programs offered on both the credit and noncredit-bearing sides of an institution are almost the same in terms of content, but they follow a different tuition model or different time schedule (ESG, 2020). The noncredit courses often have more skills-based and practical components; whereas the credit-bearing program may be broken up into several courses because of the “credit-hour model” (ESG, 2020, p. 5). This is frustrating for students and employers for several reasons. Students in noncredit cannot use federal Pell dollars and instead must pay out of pocket. Employers may have outreach from both workforce divisions and academic faculty and are “unsure how to optimally create the employee pipelines they need” (ESG, 2020, p. 5).

**Unreliable and Inconsistent Funding Sources**

Enrollment in noncredit programs is growing nationwide (Van Noy et. al, 2008). These programs serve a need for employers by providing job-ready employees after a short-term workforce training program that, in some cases, is designed with employers at the table. These programs are often more expensive than traditional credit-bearing classes because they require a hands-on component with specialized equipment (Grover & Miller, 2018). These courses are also often taught by subject matter experts in the field and not traditional faculty. However, there is no consistent formula or guaranteed funding source to aid in the development and implementation of noncredit programs (D’Amico et al. 2017; D’Amico et al., 2014; ESG, 2020; Van Noy et al., 2008). The expense of the programs may cause the programs to be unsustainable or might impact the resources for the academic programs if the community college expands noncredit programs rapidly (Jacobs & Dougherty, 2006).
Students enrolling in noncredit programs are not eligible to apply for federal student aid (ESG, 2020; Grubb et al., 1997; Jacobs & Worth, 2019). Understanding that many noncredit students are low-income, they are bearing the cost of the noncredit program if it is not subsidized by an employer or a grant. Only about half of the states provide some funding to support noncredit education, which means that with limited funding there is no requirement to track data on the outcomes of these programs (D’Amico et al. 2014). Further, most noncredit programs are funded through grants or industry partners (ESG, 2020). As a result, there is not a steady funding stream to assist in the curriculum review process or assessment of prior learning credit to enable credit articulation for these programs. “Inadequate funding and escalating costs compromise community colleges' ability to develop and support the "just-in-time" training necessary to meet the needs of local business and industry" (Grover & Miller, 2018, p. 174). The decision for community colleges to eliminate programs is often at the expense of lower enrolled courses which tend to be vocational programs such as construction and plumbing (Grover & Miller). This exacerbates the premise that credit programs are more important for the student and the workforce, however, there is a critical shortage in the workforce for the skill sets developed through many of these programs and thus the negative impact could be greater for economic development (Grubb et al., 1997).

**Best Practices**

Education Strategy Group (2020) has identified a framework for community colleges to consider and highlights some best practices for others to learn from. ESG argues first that all students need to be treated as students whether in a credit program or a noncredit program. They continue that there need to be clear pathways between the
noncredit and credit programs, an alignment between departments, programs need to be “credit-worthy or credit-based”, and “remove barriers to transition” (p. 3).

There are several clearly articulated NC-CP in the United States. The first example is the Kentucky Community Technical College System (KCTCS). The average age of a noncredit student at KCTCS is 36, whereas the average age in credit-bearing programs is 26. In 1997, Kentucky merged the community college system with the technical college system and reduced its footprint from 32 to 16 colleges. One key priority was “to develop a process to award credit for non-credit programs” (ESG, 2020, p. 20). To create structural alignment, KCTCS used process mapping to “identify roadblocks” and review policies and procedures (ESG, 2020, p. 20).

In 2001, KCTCS began taking their noncredit programs and offered fractional credit. Since that time, they have moved to modularization, embedding workforce programs into their degree programs, and creating stackable credentials (ESG, 2020; Ganzglass et al., 2011). Students can also earn credits toward an associate degree with industry-recognized certification in IT through prior learning assessment. Now, KCTCS more often embeds the “workforce certificates into degree programs” and less often creates aligned non-credit to credit pathways (ESG, 2020; K. Bird, personal communication, December 6, 2022). Students either enter into a credit-based workforce degree or if in a technical degree program, certificates are offered throughout the program.

Hartford Community College in Maryland recognized that there needed to be organizational change to amplify student success. The leadership started with merging
noncredit to credit healthcare programs and then moved into articulating 21 credits for the electrical apprenticeship program to the professional services degree. The cross-pollination of noncredit and credit faculty afforded greater collaboration and positive response. Hartford Community College acknowledges more work needs to be done to further access to all student services for noncredit programs and barriers include clear pathways and funding (ESG, 2020).

The next two examples are Wisconsin Technical College System (WTCS) and Oregon’s Career Pathway Initiative (OCPI). WTCS allows a typically non-credit apprenticeship program, to earn up to 39 credits toward a degree. WTCS applies credit to these noncredit programs in construction trades, health care, green construction, and energy-related programs. In a 2019-2020 report, WTCS’s survey indicated that 40% of students were interested in continuing their education (WTCS, 2022). OCPI was initially piloted with five community colleges but after a year expanded to all 17 colleges in 2007 (State of Oregon. 2022). OCPI was designed with employer input to create stackable programs that ultimately result in certificates, credentials, and degrees. They also use roadmaps to visually illustrate career progression and wages for the participants (Ganzglass et al., 2011). One of the 17, Portland Community College (2022), published that the program has an 89% completion rate.

Lastly, at Salt Lake Community College the average age of an applied technology and technical specialties student is 33 with over 50% of students identifying as a person of color. In Utah, there was funded legislation to create more flexible and affordable options for under-employed students. Further, legislation from 2020 required Salt Lake
Community College to remove any duplicate programs that are offered in both noncredit and credit offerings. Between 2014 and 2016, the institution moved 20 noncredit programs to a competency-based model. A student did not have to clock a particular number of hours but had to prove their competencies in the program. At the same time, the institution has “developed internal equivalency agreements to grant credit for competencies, rather than courses” (ESG, 2020, p. 17). The students earn the credit when they transition from the noncredit, competency-based program into a degree program (ESG, 2020).

This collection of work highlights just several of many ways that community colleges have begun to articulate NC-CP in Kentucky, Wisconsin, Oregon, and Nevada. All the examples required support from leadership and faculty buy-in. In addition, while research suggests several benefits of NC-CP for both students and institutions, community colleges also face several barriers in implementing NC-CP (D’Amico et al.; 2014; ESG, 2020; Ganzglass et al., 2011; Van Noy et al., 2008). ESG (2020) provides a framework for community colleges to consider, but little is known about how institutions may begin to overcome barriers to operationalize and implement multiple NC-CP at scale. There are innovative ways of how community colleges are implementing NC-CP but there is little research on how the community colleges navigated the process. This study seeks to fill this gap in the literature. Therefore, my research questions are:

1. How do stakeholders describe the process of designing and implementing non-credit to credit pathways at two community colleges?
2. How do stakeholders at each community college describe the obstacles in the design and implementation of non-credit to credit pathways?

3. How, if at all, do stakeholders perceive that their community college overcame obstacles in the design and implementation of non-credit to credit pathways?

4. How do stakeholders at each community college describe the factors that facilitate the design and implementation of non-credit to credit pathways?
CHAPTER THREE

Methodology

Community colleges have noncredit programs that serve approximately three-fifths of their student population (Jacobs & Dougherty, 2006). In most cases, these noncredit programs do not articulate to credit, thus resulting in low transfer rates to degree-granting programs at the institution (Xu & Ran, 2015). According to D’Amico et al. (2017), “noncredit to credit opportunities may be an avenue to explore for increasing access to community college” (p. 291).

The purpose of this qualitative case study was to explore, in-depth, the process that stakeholders at two different community colleges used to describe how they designed and implemented NC-CP and the obstacles and facilitators to the process. According to Yin (2018), the case study design is appropriate “to understand a real-world case and assume that such an understanding is likely to involve important contextual conditions pertinent to your case” (p. 15). According to Merriam (1998), case studies can “solve practical problems… arising from everyday practice” (p. 29), “illustrate the complexities of a situation” (p. 30), and “explain the reasons for a problem” (p. 31). Further, Merriam (1998) articulates a case study’s focus on “process rather than outcomes (p. 19). Therefore, a case study design is appropriate for this study because the researcher is exploring a more contemporary issue of NC-CP and is seeking to solve a potential problem with the intent to dive into the complexities of NC-CP within an institution.

A multiple-case design is most appropriate because it will allow the researcher to explore two distinct cases, produce individual case reports, and then draw cross-case conclusions.
that can be utilized for policy implications (Yin, 2018). Figure 2 illustrates the multiple-case study procedure. The dashed line in the image is vital to the study design. It allows the researcher to revisit the theory and redesign it if for some reason there is a deviation from the original theoretical propositions. This eliminates possible accusations that the researcher is ignoring data to prove the original propositions (Yin, 2018). A redesign could be in the number or selection of interviewees if after the first case study, the participant selection did not seem adequate.

**Figure 2**

*Multiple-case Study Procedure*
Two community colleges were selected as contrasting cases because of their size and experience with noncredit to credit pathways. This case study utilized qualitative research methods such as participant interviews and content review of websites, organizational charts, meeting minutes, and policy documents related to each institution’s noncredit and credit programs and pathways.

**The Role of the Researcher**

It is important to acknowledge my experience and position to allow for transparency in this research study. As a higher education professional with a strong focus on workforce development, I have a position on the importance and value of noncredit programming. The students that I have served throughout my career are primarily involved in noncredit, workforce programs that are designed to help them get a job. When adult students are enrolling in these programs, most are narrowly focused on job attainment to take care of themselves or their families and do not appear to be concerned with career advancement. It is my opinion that higher education professionals should strive to look ahead for students by helping them to consider how they can most benefit from the time they are able to invest in themselves and their education. As I will discuss more in the data collection section, I used reflexive journaling to document my preconceptions, thoughts, and feelings. I also used peer debriefing for the trustworthiness of the data.
Methods and Procedures

Sampling Procedures

There are 935 community colleges in the United States (Duffin, 2022). In most states, each of these community colleges has its own governing board, however, in eleven states, there is a statewide board that governs all the community colleges in that particular state (Goldstein, 2018). For purposes of this research, there were two community college systems selected for their participation as individual cases, both of which have a state governing board. Vital to a case study is that the case or cases are “bounded,” that one can “fence in” what is being studied (Merriam, 1998, p. 27). This study selects two community colleges as distinct cases. Both community colleges were purposefully selected for this multi-case study. The cases were selected because of their vast differences (see Table 1). One is a small community college system, referred to in this study as Small Community College (SCC) system, with approximately 13,400 students, while the other, referred to as Large Community College (LCC) system, has approximately 39,200 students. SCC has less than five colleges within its system; whereas LCC has more than fifteen colleges associated with the system. The contrast in size in the institutions provided interesting insights into the process of designing and implementing NC-CP. Table 1 does not reflect exact numbers and instead uses rounding in most of the categories to maintain the anonymity of the locations. There are several categories for SCC where there are unknown data points, and this is because the institution indicated they did not track this data. They both have noncredit programs and, in an initial review of the literature, were in different phases of implementation. LCC is
often recognized in publications for success in NC-CP and has numerous NC-CP, whereas SCC has only appeared to have a few NC-CP.

Table 1

Comparison of SCC and LCC Systems

<table>
<thead>
<tr>
<th></th>
<th>Case 1 - SCC</th>
<th>Case 2 - LCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Full-Time Equivalency Students</td>
<td>13,400 FTEs</td>
<td>39,200 FTEs</td>
</tr>
<tr>
<td>Number of Students</td>
<td>Unknown</td>
<td>94,231</td>
</tr>
<tr>
<td>Number of Noncredit Students</td>
<td>&gt; 20,000</td>
<td>&lt; 10,000</td>
</tr>
<tr>
<td>Number of Colleges in System</td>
<td>&lt; 5</td>
<td>&gt; 15</td>
</tr>
<tr>
<td>Number of Faculty</td>
<td>&lt; 1,000</td>
<td>&lt; 3,000</td>
</tr>
<tr>
<td>Number of Employees</td>
<td>&lt; 2,000</td>
<td>&lt; 4,000</td>
</tr>
<tr>
<td>Average Age of Credit Student</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>Average Age of Noncredit student</td>
<td>Unknown</td>
<td>40.50</td>
</tr>
<tr>
<td>Minority Students in Credit</td>
<td>37%</td>
<td>18.45%</td>
</tr>
<tr>
<td>Minority Students in Noncredit</td>
<td>Unknown</td>
<td>20%</td>
</tr>
</tbody>
</table>

* Note: From Administrator at SCC, personal communication, January 10, 2023 and Data Specialist from LCC, personal communication, January 20, 2023

Case Study Participants

The researcher utilized purposeful sampling to identify participants at each institution including both administrators and faculty engaged in the NC-CP process, as well as employers who are collaborating in the process. Purposeful sampling is often used in qualitative research to provide detailed and thorough information from those most appropriate to provide it (Creswell & Creswell, 2018). In these two case studies, the participants had to be purposefully identified with set criteria to be able to provide
relevant and rich data. The researcher utilized snowball sampling to assist in finding participants that fit the criteria for this study.

Following IRB approval from the University of Rhode Island and the two individual community college systems' IRB process, participants were selected and recruited. Participants classified as administrators or faculty were selected based on the following criteria: 1) they are employed by the institution as either an administrator or a faculty member; 2) they have knowledge of both noncredit and credit programs; 3) they have knowledge of the noncredit and credit functions of the college; 4) and they have at least six months experience in the institution and have been involved in an NC-CP discussion to ensure they have been able to formulate perceptions and experience with either noncredit or credit programming. After completing the first case study, and beginning the recruitment for the second case study, the researcher was having difficulty recruiting participants. Further, through personal communications with former administrators at the second community college system, it seemed important to modify the criteria to include former administrators and faculty as potential participants. With these criteria in mind, administrators and faculty were interviewed from each institution as well as employer partners that have relationships with creating a non-credit or credit program with the institutions which will provide diverse viewpoints of the process (see Tables 2 and 3). The participants’ names shown are pseudonyms.
Table 2

Participants by Years at Small Community College and Type

<table>
<thead>
<tr>
<th>Participant</th>
<th>Years at CC</th>
<th>Administrator, Faculty or Employer Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leslie</td>
<td>7 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Benjamin</td>
<td>14 years</td>
<td>Faculty</td>
</tr>
<tr>
<td>Sherry</td>
<td>23 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Rachel</td>
<td>10 years</td>
<td>Administrator/Faculty</td>
</tr>
<tr>
<td>Robert</td>
<td>22 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Kelly</td>
<td>2 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Paula</td>
<td>6 months</td>
<td>Administrator</td>
</tr>
<tr>
<td>Danielle</td>
<td>N/A</td>
<td>Employer Partner</td>
</tr>
<tr>
<td>Lindsay</td>
<td>N/A</td>
<td>Employer Partner</td>
</tr>
<tr>
<td>Isabelle</td>
<td>N/A</td>
<td>Employer Partner</td>
</tr>
</tbody>
</table>

Table 3

Participants by Year at Large Community College and Type

<table>
<thead>
<tr>
<th>Participant</th>
<th>Years at CC</th>
<th>Administrator, Faculty or Employer Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ella</td>
<td>5.5 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Alyssa</td>
<td>18 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Nora</td>
<td>21 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Jackson</td>
<td>15 years</td>
<td>Administrator</td>
</tr>
<tr>
<td>Name</td>
<td>Years</td>
<td>Role</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>------------------</td>
</tr>
<tr>
<td>Lisa</td>
<td>20</td>
<td>Administrator</td>
</tr>
<tr>
<td>Kevin</td>
<td>2.5</td>
<td>Administrator</td>
</tr>
<tr>
<td>Paul</td>
<td>2</td>
<td>Administrator</td>
</tr>
<tr>
<td>Caitlin*</td>
<td>N/A</td>
<td>Employer Partner</td>
</tr>
<tr>
<td>Claudette</td>
<td>N/A</td>
<td>Employer Partner</td>
</tr>
<tr>
<td>Kathy</td>
<td>N/A</td>
<td>Employer Partner</td>
</tr>
</tbody>
</table>

*During Caitlin’s interview, the researcher learned she had also worked at the Large Community College system for over 20 years, so she agreed and was asked both sets of questions separately for consideration.

**Participant Demographics**

Ultimately, seven administrators and/or faculty and three employer partners were interviewed from each case. For SCC, there were 6 administrators and 1 faculty with a range in time at the community college of 6 months to 23 years. One administrator is also part of the faculty. For LCC, there were 7 administrators and no faculty with a range in time at the community college of 2 years to 21 years. Though the researcher attempted to get at least one faculty member, the faculty that were invited via email did not respond and the administrators did not recommend anyone to assist with the snowball sampling. One administrator had been a faculty member at a different institution so brought that knowledge to the interview. The researcher does not feel that an individual faculty member would have provided any additional data that was not already provided from the other participant interviews. The researcher performed 20 interviews, 10 from each community college which allowed for data saturation.
Informed Consent and Confidentiality

Both community college systems were assured the protection of their confidentiality through the IRB process. The participants were also assured anonymity, and all have been provided pseudonyms. Both the University of Rhode Island IRB as well as the individual community college systems approved the research study through their own IRB process and all participants were provided consent forms to sign prior to conducting the interviews for data collection (see Appendix A and B). Participants were assured that the researcher would maintain their privacy and confidentiality but also outlined the benefits and limited risks in their participation.

Data Sources and Collection Procedures

Data Sources

Case studies are conducted in their “real-world” contexts (Yin, 2018). Creswell and Poth (2018) state that researchers in qualitative studies rely on multiple sources of data. This multi-case study will utilize interviews and document and artifact examination. Each case will be conducted separately, completing one institution prior to collecting data for the second.

Administrator and Faculty Interviews

Having received IRB approval, the researcher contacted the identified participants and requested an interview. Only one interview was conducted for each participant. To facilitate setting up the interviews with each participant, the researcher sent an email introducing the research, its purpose, and how it will be used (see Appendix C). In some cases, a colleague of the researcher or one of the participants made the first electronic
introduction to assist the researcher. The participants were provided with a description of
the research study, and at the beginning of each interview, the researcher reiterated that
the data collection will assist in better understanding how each institution designs and
implements multiple NC-CP for students. The researcher answered any questions the
participants had about the research.

The semi-structured interviews, one per participant, were conducted between
September 2022 and January 2023. In the first case, the researcher interviewed the
administrators and faculty prior to interviewing the employer partners, and in the second
case, all but one of the administrator interviews were completed before the employer
partners. The researcher created a list of open-ended questions as part of the interview
protocol (See Appendix D). This ensured general consistency between the interviews
(Yin, 2018). The researcher did include probing questions, where needed, to gain deeper
responses. Though the researcher intended to do some interviews in person and some via
Zoom, all participants elected to participate via Zoom. The researcher video and audio-
recorded each interview with participant consent and subsequently transcribed each
interview.

The researcher was clear with the purpose of the study and openly answered any
questions. It was important during this process to remain transparent with the
participants. This facilitated creating an open relationship with participants as well as
building their trust in the research and the integrity of their participation (Jones et al.,
2014). Interviews lasted for approximately 15 - 30 minutes, and they were scheduled at
the convenience of both time and location of the participant.
After each interview, the researcher kept a reflexive journal to capture any thoughts and feelings held about the individual interviews to enhance the dependability and confirmability of the data (Berger, 2015). “Reflexivity is self-appraisal in research” (Berger, 2015, p. 220). The reflexive journal allows the researcher to acknowledge and analyze her immediate thoughts and views upon completion of each interview. The researcher also used this as an opportunity to bullet out any initial highlights about the data that was collected for future data analysis.

*Employer Interviews*

For each case study, I conducted three employer interviews. This allowed the researcher to gain the perspective of the employer in the noncredit to credit process and whether this was even an important consideration for working with a community college on workforce training development. The process was like the interviews for faculty and administrators. They were conducted via Zoom, audio, and video recorded with permission from the participant, and then subsequently transcribed. Each interview lasted approximately 7 - 25 minutes and only one interview per participant was conducted. These interviews tended to be shorter than the administrator and faculty interviews because there were fewer interview questions required for the researcher to gain the information needed to respond to the research questions. The researcher also followed up each interview with a reflexive journal entry to capture any initial highlights and impressions which would prove helpful in the data analysis.
**Document and Artifact Review**

The document and artifact review occurred before and throughout the entire case study. There was initial research conducted particularly on websites and publicly available resources of the institutions to assist in identifying potential participants and interview questions and to see “what it can reveal about the program[s]” (Merriam, 1998, p. 114). This continued throughout the data collection process, however, the researcher sought out documents or further information on publicly available websites when they were referenced during participant interviews.

The document and artifact review provided data on existing NC-CP and any easily identifiable pathways, provide background on each community college system, as well as understand the organizational structure of each system. This information was important before the fieldwork to orient the researcher. It is noted that documentation is used to “corroborate information from other sources” because documents are usually not without bias (Yin, 2018, p. 115). Document and artifact review assisted the researcher with triangulation, and therefore, the credibility of the study. Table 4 indicates the research questions, the data collection methods, and the anticipated data analysis methods for the study.
### Table 4

**Research Questions, Data Collection, and Data Analysis Methods for the Case Study Design**

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Data Collection Method(s)</th>
<th>Data Analysis Method(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do stakeholders describe the process of designing and implementing non-credit to credit pathways at two community colleges?</td>
<td>Document and artifact review, Interviews</td>
<td>Continuous review throughout study to examine emerging themes (Merriam, 1998; Yin, 2018)</td>
</tr>
<tr>
<td>How do stakeholders at each community college describe the obstacles in the design and implementation of non-credit to credit pathways?</td>
<td>Interviews</td>
<td>Continuous review throughout the study to examine emerging themes (Merriam, 1998; Yin, 2018)</td>
</tr>
<tr>
<td>How, if at all, do stakeholders perceive that their community college overcame obstacles in the design and implementation of non-credit to credit pathways?</td>
<td>Document and artifact review, Interviews</td>
<td>Create a flow chart to examine the data and uncover emerging themes in the process (Yin, 2018)</td>
</tr>
<tr>
<td>How do stakeholders at each community college describe the factors that facilitate the design and implementation of non-credit to credit pathways?</td>
<td>Interviews</td>
<td>Continuous review throughout the study to examine emerging themes (Merriam, 1998; Yin, 2018)</td>
</tr>
</tbody>
</table>

**Data Analysis**

The researcher transcribed the audio recordings after each interview. The researcher also completed a reflexive journal after each session that captured any initial thoughts about the interview and to capture any additional observations about the interview. The researcher used a constant comparative method during the multiple interviews by analyzing during and after data collection. This allowed the researcher to
modify or expand the interview questions after the first interview and this was noted in
the reflexive journal. The researcher completed her analysis in several phases.

**Phase I: Coding**

The researcher combined all of the interview transcripts for each case
individually. Case 1’s transcription was 58 pages of data. Case 2’s transcription was 82
pages of data. The researcher chose to code in a Word document using the comments
feature to illustrate the codes. The researcher utilized initial coding, evaluation coding,
eclectic coding, and first-level coding before developing any themes (Saldaña, 2016).
Initial coding allowed the researcher to find similarities and differences in the interviews
in an open format. The researcher moved swiftly through the transcription. A screenshot
of some of the initial coding can be seen in Figure 3.

**Figure 3**

*Example of Initial Coding in Word*

<table>
<thead>
<tr>
<th>Robert</th>
<th>08:02</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think it's just going through it. Some stuff takes longer than others, but again, it's having the right people at the table throughout the process. And I think it's always easier when you're trying to design with that in mind. So you're doing it (joust) and you're making sure you're being indicative of what everyone is looking for. If this is going to be something that's credit that the faculty are involved as part of the design versus having something that already exists and saying how can we offer credit for this? It's a harder ask I think. So I think faculty involvement is key.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amy Grzybowska</th>
<th>08:44</th>
</tr>
</thead>
<tbody>
<tr>
<td>What obstacles did you encounter while designing and implementing any of these mini programs?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Robert</th>
<th>10:31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of faculty buy-in. You know, again, I think that's what that's a huge part of this. I think some of it is understanding the approach. And the time to review it. We've done it with Electric Boat where we reviewed their management program. It's called MI, I don't know what it stands for. But it's a program that they offer to people want to be supervisors or managers. You know, we had to get the curriculum, identify faculty to go and review it and see how does this equate to what we already have, can we offer credits for this for these students and then they went through it in there are wanting these credits, which was in place of, in their case, workplace relationship skills as part of the curriculum, so they're getting credit for some of that but that the review process took some time in one getting the curriculum, having someone have the time to review it, a while. To determine how it equates to something we might already be offering.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Amy Grzybowska</th>
<th>07:50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was this a similar process or obstacles or successes for the CNC?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Robert</th>
<th>10:08</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNC primarily existed and was going through a redesign so they were already these three credit offerings, and one might be four credits, but that already existed and they were looking to redesign when we came in wanting to offer something. So instead of us going down a <em>non-credit</em> path, we were able to be involved and bring employers and industry in to help kind of make tweaks that they saw were needed to that program. So that program as it existed was already an academic course and we kind of framed it or the timing worked out really well the redesign happened with us involve bringing employers and industry in and then we did some wrapsound with <em>non-credit</em> courses, like the OSHA 10 which is a awarded one credit for people who complete that</td>
<td></td>
</tr>
</tbody>
</table>
The researcher also used evaluation coding which allowed the researcher to begin to extract the positive and negative observations from the participant responses (Saldaña, 2016). The evaluation coding utilized a form of eclectic coding which highlighted the positive comments, negative comments, and subsequent recommendations extracted through the interviews. Within eclectic coding, the researcher employed both descriptive and in vivo coding to further enhance the analysis. The researcher used member checking to ensure she is accurately representing the participants’ experiences and enhance the credibility of the study. To further analyze evaluation coding, the researcher referred to Patton (2008)’s four distinct processes as found in Saldaña (2016), “analysis of the data for its patterns; interpretation of their significance; judgment of the results; and recommendations for action” (pp. 142-143). This could be ascertained from the codes identified in the transcripts.

**Phase II: Finding Themes**

After each coding exercise, the researcher created an Excel spreadsheet to put the codes for each interview in columns and begin to see if any immediate themes emerge. Each theme in the spreadsheet is identified by a different color and the shading is carried throughout each column for easy identification. This exercise assisted the researcher in visually aligning the codes within the data. Figure 4 is a screenshot of the spreadsheet.
A concept map was developed for each theme with their corresponding sub-themes in order to consolidate the data.

**Phase III: Writing Up Each Case Narrative and Program-Level Logic Model**

Once the researcher identified the themes, the researcher began a within-case analysis. Each case is analyzed individually as a “comprehensive case” before the cases are analyzed together (Merriam, 1998, p. 194). This was written in a narrative format to cohesively share the information from each case study. The researcher understood that she was reviewing the process at the two identified cases and chose to use a program-level logic model to illustrate the analysis. As described by Yin (2018), “the logic model stipulates and operationalizes a complex activity, such as implementing a program…
whereby an outcome (event) at an earlier stage can become the stimulus (causal event) for the next stage” (p. 186).

The logic model assisted the researcher with illustrating the cause and effect of the intervention and thus the immediate, intermediate, and ultimate outcomes (Yin, 2018). The program-level logic model is a way to illustrate implementing a noncredit to credit career pathway. Figure 5 is an example of a logic model that the researcher will adapt for her analysis.

Figure 5

Logic Model Example

Note: (adapted from Kellogg, W.K., 2004)
In the Program-Level Logic Model depicted in Figure 5, the inputs are the resources that the institution brings to the program, the activities are the actions that occur within the institution with the resources, the outputs are the “direct products of program activities” and the outcomes are the “specific changes in program participants’ behaviors, knowledge, and skills” (Kellogg, 2004, p. 2).

**Phase IV: Program-Level Logic Model and Cross-Case Analysis**

After the coding was complete, the researcher employed metasynthesis. This approach allowed the researcher to “collect, compare, and synthesize key findings of a number of related interpretive/qualitative studies” (Saldaña, 2016, p. 204). This is relevant for a cross-case analysis between the two cases in this study. Further, Saldaña (2016) quotes Thorne et al. (2004) by arguing that metasynthesis is not an “oversimplification; rather it is one in which differences are retained and complexity enlightened” (p. 206). It is important for the researcher to consider the local factors that impact each case but allow the researcher to pull out the similarities across cases (Merriam, 1998). Weaving together the analysis of two cases and their individual experiences of noncredit to credit pathways allowed for rich description and a more macro-view of the obstacles and facilitators for these programs.

The cross-case synthesis highlighted the within-case patterns as well as relationships between the cases and allowed the researcher to “retain the integrity of the entire case and then to compare or synthesize any within-case patterns across the cases” (Yin, 2018, p. 196). After the researcher determines the within-case themes or patterns, only then can the researcher determine if they were replicative against another case, more
importantly, the researcher can determine the “how” and “why” of the proposed actions (Yin, 2018, p. 197). The coding helped the researcher determine the themes that illustrate how a noncredit program develops into a pathway to a credit-bearing certificate or degree and ultimately help produce the logic model and cross-case analysis. These analyses allowed the researcher to find comparisons and hopefully provide guidance on how to design and implement career pathways at other institutions. The document and artifact analysis were used to triangulate the data from the interviews.

**Limitations**

To enhance trustworthiness of the study (see Appendix E) the study design included member checking, peer debriefing, triangulation, pattern matching, thick description, and reflexive journaling. As woven into the data collection and analysis sections, the researcher increased credibility by member checking with the interviewees after themes have emerged and also reviewed the flow chart created during the data analysis with the participants to see if the interpretation is “plausible” (Merriam, 1998, p. 204). Peer debriefing was used with reflexive journaling for the researcher to be mindful of her thoughts and perceptions of NC-CP. Triangulation of document analysis and different perspectives in the interviews was used to “confirm the emerging findings” for additional credibility (Merriam, 1998, p. 204). Lastly, the researcher made some inferences based on the participants’ interviews. To ensure the validity of these inferences, the researcher utilized strategies such as pattern matching to “compare empirically observed patterns with either predicted ones or with patterns identified in previous studies” (Gray, 2017, p. 287).
The researcher has designed a multiple-case study, but case studies are still limited in their generalizability (Yin, 2018). The researcher provided thick descriptions of the setting and participants so that readers can decide whether the study results are transferable to their contexts (Creswell & Miller, 2000). Lastly, to ensure the dependability of the findings, the researcher incorporated reflexive journaling throughout the interview process (Berger, 2015).
Chapter Four

Case Study Findings

This qualitative, multi-case study aimed to provide insight into the process of implementing noncredit to credit pathways at community colleges. To investigate this, the researcher conducted two case studies each with their own within-case analysis and ultimately conducted a cross-case analysis to present the findings. The analysis seeks to answer the following research questions:

1. How do stakeholders describe the process of designing and implementing non-credit to credit pathways at two community colleges?
2. How do stakeholders at each community college describe the obstacles in the design and implementation of non-credit to credit pathways?
3. How, if at all, do stakeholders perceive that their community college overcame obstacles in the design and implementation of non-credit to credit pathways?
4. How do stakeholders at each community college describe the factors that facilitate the design and implementation of non-credit to credit pathways?

This chapter will provide findings from each individual case and then at the end of the chapter will provide cross-case findings. The following four themes emerged from the data analysis of Small Community College (SCC):

- Student Characteristics
- Organizational Considerations
- Obstacles
Facilitators

Each of the themes will be discussed as they were portrayed within each case and ultimately how they fed into the resulting cross-case synthesis.

Case One – Small Community College System

Student Characteristics

Students that participate in noncredit programming at community colleges tend to be returning adults, unemployed or underemployed, or English Language Learners (D’Amico, 2017; Davaasambuu et al., 2020; Ryder & Hagedron, 2012). Several interview participants identified these characteristics in the population that they work with at SCC. Maria noted, “What I noticed was that those students sometimes require more support so they could be students who are returning to the classroom after a number of years, they could be unemployed or underemployed.” Kelly indicated, “A lot of our students don’t necessarily speak English as a first language or they speak multiple different languages.” Many of the noncredit programs are marketed towards the unemployed and underemployed because they are funded through the State’s Department of Labor and Training job skills program which requires the college or other training provider to track the demographics as well as employment outcomes of their participants. One employer interview indicated incumbent workers that are trying to up-skill have a hesitancy to return to school.

Organizational Considerations

There are several sub-themes that resulted from this theme. Many of these sub-themes also could and do support facilitators or obstacles for NC-CP, and they may repeat in those subsections, however, they are related to the organization itself and are
relevant to discuss. The sub-themes include silos between academic and workforce divisions, leadership, speed of academia, alignment of programs, and evaluation.

**Silos Between Academic and Workforce Divisions.** George and Jones (2001) argues that organizational change theory focuses less on the individual and more on the “structure and culture” which could impact change and inertia. Several interviewees noted that the system is often siloed between academic and workforce development. Benjamin noted that the example he was providing about a successful NC-CP was his first experience working with workforce development because they had “always been kind of separate”, however, the successes occurred when there is a bridge between the two divisions in the college system. Specifically, Sherry stated, “We recently had an AVP (Assistant Vice President) for Workforce, who was really focused on developing these pathways, established positive, incredible relationships with faculty, which is key, and was able to really become part of the academic affairs team.” This directly supports Grover and Miller (2018) who stipulate that community colleges need to “hire and support visionary leaders” who lean into future workforce needs and the skills needed in the workplace (p. 174). To further illustrate the divide, the website for Small Community College has Academic and Workforce Partnerships listed separately. See Figure 6 which illustrates the dropdown menu on the website.
If a person searching the website clicks the “Academic and Career Paths” link on the website, it leads the viewer to the seven pathways a student can take to the various associate degree programs. With a search through several of the academic programs, the researcher did not find any reference to any of the workforce programs. However, the researcher did find in at least one instance where in a workforce program there was a reference to the ability of the participant to apply for prior learning credit. It was not obvious how many credits this program would result in for the participant. There were several programs noted during the interviews that did have prior learning credit or were credit-articulating such as two insurance programs that are listed in the workforce section on the website, but there was no mention of the eligibility of prior learning credit upon completion.
Leadership. There are several different elements of leadership that emerged from the findings. Rothwell et al. (2009) argue that for effective organizational development (OD) there must be general approval from leadership. Several interviews indicated the importance of leadership driving the implementation of NC-CP, or at the very least, providing support. Robert shared that there must be “strong advocacy from the highest levels” and “if there’s no advocate and no one pushing for it, it would never have happened.” Another colleague, Paula, when asked about whether management support was important stated, “When it’s encouraged and expected to be a little more flexible, I think there’s a lot more that can happen.”

In the leadership sub-theme, it was not just leadership support that emerged from the data, but also transparency and communication. Leadership needs to communicate why there is a need for change and the benefits of the change (Armenakis & Harris, 2009; Nordin, 2012; Self & Schraeder, 2008). During the interviews, participants articulated it was important for administrators and faculty to be open about the priorities and goals of the organization when designing and implementing NC-CP. Specifically, Kelly, when asked about organizational considerations for success, stated “Oh gosh, regular meetings, making sure we all have our priorities aligned.” This allowed everyone to understand the goals and deliverables. As stated in the literature, Rothwell (2015) argues that in organizational development management is not hands-off, but that change is more likely to be successful when employees are part of the planning, decision-making, and implementation of the change. This will organically create the buy-in and culminate in optimizing the results. Robert also stated the importance of transparency. He starts by explaining the importance of having the right people at the table and then continues:
So you're doing it upfront and you're making sure you're being inclusive of what everyone is looking for. If this is going to become something that's credit that the faculty are involved as part of the design versus having something that already exists and saying how can we offer credit for this?

Deetz et al. (2000) argue that employees that believe in the mission are more likely to support the goals and deliverables even if they are different from their individual priorities (Nordin, 2012).

**Speed of Academia.** It was noted throughout the interviews that often employers turned to noncredit workforce programs because they can be quick to develop new curricula, they are willing to pilot programs, and they can avoid the often-lengthy curriculum review process (Van Noy et al., 2008). This will also be referenced under obstacles, but from an organizational perspective, it is also relevant. The researcher noted that the curriculum review committee at SCC meets three times a semester and does not meet during the summer. There are published timelines for submitting paperwork to be considered on an agenda. The researcher read through several months’ meeting minutes, but there was no direct correlation between programs offered in the workforce division to an academic program. This could be discussed during the meetings, but it is not captured in the minutes. For example, Rachel was sharing with the researcher that to create an NC-CP there has to be someone within the institution willing to lean in and do the work. She continued the discussion by indicating she was a very willing partner, which is how she has accomplished several programs, however, she felt that other academic colleagues may be hesitant because “traditionally academia… moves very slow and the workforce side moves fast so I think the speed overwhelms some people who have been in academia a long time.” From an employer perspective, however, the researcher heard that in some cases the development of a new program was fast when it was just non-credit, or it took
upwards of a year when it was going to also have credit associated. There was not a consistent message from the employer interviews on the impact of the length of time. All seemed content provided they received a program that produced results.

**Alignment of Programs.** Specifically, in this sub-theme, the data illustrated that aligning the noncredit program to a credit course or program was often difficult. Lindsay shared from the employer perspective, “I would say the complexities of creating curriculum, the SCC professors were wonderful but in order to create new curriculum that is credit based it is it is a complex task.” From an accreditation standpoint, it is vital that if a noncredit program was to count for a credit course the objectives and competencies must align so the appropriate faculty member can sign off. Accreditation is intended to “assess the quality of the institutions within their membership” (Wheelan, 2016, p. 313). It was noted in SCC’s latest accreditation that many of the certificate and degree programs required their own accreditation from different accrediting bodies. Several programs created with SCC were developed with faculty and built with intentional alignment, so it was easier to go through curriculum review, assign credit and ensure they were meeting the requirements and rigor of the accrediting bodies. Paula shared, “Some departments have worked with workforce to come up with agreements as far as how their programs are delivered so that students would be eligible for credit.” As was noted earlier in this section, there were no clear places on SCC’s website where a participant would know about this alignment and stackability.

**Evaluation.** Kelly acknowledged the importance of evaluating programs and processes. She was sharing how as a workforce professional she was able to work closely with academics to get a program approved for credit. She indicated that along with
communication they also reviewed “what should we do better next time.” Similarly, Hussain et al. (2016) argue that change management is a continuous process that reacts to both internal and external factors.

**Obstacles**

The third theme that emerged from the data was obstacles. Some of the major obstacles that were discussed could be divided into several sub-themes related directly to faculty, program alignment and degree requirements, and employer considerations. None of the obstacles seemed to be roadblocks that could not be overcome but were merely presented as factual challenges faced every day at SCC.

**Faculty.** It was noted throughout the interviews that there were several obstacles related directly to faculty: lack of faculty buy-in, manpower, and faculty turnover. Rothwell (2009) argues that change is most likely to be successful when employees are part of the process, namely the planning, decision-making, and implementation of the change. The lack of faculty buy-in is one reason why NC-CP are hard to establish. This was the first obstacle listed by Robert; however, he followed up to say, “I think some of it is understanding the approach.” It is imperative that the faculty see the value in creating these programs and sometimes they feel that the rigor is not the same between noncredit and credit programming. Several interviews also indicated the need for a willing faculty member to shepherd the process, whether that is establishing the program from the inception with the employer partners and then taking it through curriculum review or trying to crosswalk the competencies after. Sherry tied these ideas together when she said, “I will go back to the importance of having a leader on both sides, academic and noncredit that are respectful of the rigor and the process for developing a curriculum.”
However, there is often not enough time and manpower to accomplish this for multiple programs. This was captured by Kelly who indicated, “It also just requires manpower which requires funding, which is kind of tale as old as time in public institutions, isn’t it?”

**Program Alignment and Degree Requirements.** Specifically, it was discussed that objectives and competencies between noncredit and credit programs must match. If they do not match, then it can be difficult to figure out which course or courses the noncredit program is specifically replacing (Price & Sedlak, 2018). Several of the interviews shared this challenge with program alignment. Leslie shared that the person spearheading the process “has to be somebody with an eye to the academics to make sure that the rigor is in place and then aligned to what we consider to be a certificate or a degree” whereas Paula shared “I’m not sure there are many [other] workforce programs that match exactly what we have on the academic side of the house” indicating that there are not many additional programs that could be aligned for credit. Even one of the employer partners understood that even though credit-bearing was important for her, one of the obstacles for Small Community College faculty may not align. Isabelle said, “The coursework may not fit the requirements of what they’ve considered to be credit bearing.” Further, in some majors, namely in healthcare, there are not enough elective credits to provide substantial noncredit to credit opportunities and still meet the degree requirements. As Robert stated, “Their curriculum is already so packed full of credits.” Lastly, the interviews indicated the length of time the curriculum review process can take is an obstacle but recognizing this process is necessary to ensure the appropriate crosswalk is created between the noncredit and credit courses.
**Employer Considerations.** The employers do not always care if there is credit associated with their industry-driven training but instead, need the training program to produce employees with the required skills (ESG, 2020; Friedel, 2008). Danielle bluntly indicated, “It certainly wasn’t [a conversation that] we need to have credit-bearing. In fact, we’ve expanded our tuition reimbursement program to include certificates and certifications. And not just… credit-bearing programs.” However, there are some employers that do care if there is credit for several reasons: so participants can continue on a pathway because some tuition reimbursement policies at companies only allow credit-bearing programs. Isabelle addresses this topic that without credit, “we’re not helping people grow into their career, like building their credits in order to be able to continue their pathways.”

**Facilitators**

The fourth theme that emerged was facilitators. Within this theme, there were four major sub-themes: faculty, program development and review, enrollment, and momentum. The data analysis clearly identified several reasons why NC-CP can be successful in a community college and what helped successful programs.

**Faculty.** First, faculty need to buy into the concept. Lindsay, an employer partner, had a positive experience in her process with the community college indicating faculty were “fully arms open, fully engaged, you know, just so professional… such experts!” There are some majors that have a natural alignment with industry and therefore may have faculty that are more receptive to not only aligning the degree programs but understanding the value of establishing NC-CP to assist those that need to get into the workforce quickly but could continue their pathways to finish a certificate or degree. It is
also helpful for any program or concept to have champions within the college to help get others excited about the programs. Third, it is also imperative that someone takes the lead on each individual NC-CP so that there is someone shepherding it through the different steps. Lastly, you will likely have success if faculty are involved early and are at the table in the discussions with the industry partners. Sherry summarized by saying, someone “that can come back to the college and sort of translate that into a work plan that brings together credit-bearing academic stakeholders so that they are at the table from the get-go.” Further confirmed by Robert, “Faculty buy-in is huge and finding the right faculty, one who will have time to commit to these things.” Armenakis and Harris (2009) argue that in organizational change theory including individuals as part of the solution will increase the likelihood of success and sustainability.

**Program Development and Review.** This sub-theme highlighted that it is often a facilitator for the community college when they can quickly establish a program to meet an employer need and pilot it on the noncredit or workforce division (Van Noy et al., 2008). Sherry shares an example from SCC:

> Let's use data analytics as an example. That was a perfect model where an employer came to our college and sought out workforce support in order to upskill their employees in this basic data analytics area. What built up from that was we got the the employer was satisfied with what was received and their employees were trained and trained, but we were able to grow it.

And Robert similarly shared:

> I think where we are today is we see the noncredit as kind of we're, you know, a testing stage, where we can pilot things or launch things quickly with an eye to eventually having them seek approval on the academic side.
This pilot allows the faculty to make modifications to the program before it goes through the curriculum review process. Faculty also understand the importance of programs aligning with industry needs and it is also more difficult to argue that there is a lack of rigor if there is a credential that results from any of the noncredit programs. These credentials can clearly illustrate the competencies that a student develops upon passing the course and subsequent certification (Advance C.T.E., 2016). Rachel, a department chair, stated, “I work with the faculty that are teaching those courses, to ensure that they are meeting the outcomes, and then if a student when they finish… they pass the credentials, they can apply for credit through our PLA process.” Students who are awarded prior learning credits have greater persistence, higher graduation rates, need less time to earn degrees, and save money (Klein-Collins, 2010). Lastly, it is a facilitator in creating NC-CP when there are clear stackable opportunities created for students. It is much easier for faculty and employers to support programs that show a clear progression and benefit to the student. Postsecondary credentials increase lifetime earnings, career advancement, and make a student more competitive in the workforce (Bishop, 2019; ESG, 2020; Van Noy et al., 2008).

**Momentum and Enrollment.** The last two themes that emerged were gaining momentum and enrollment. It is a facilitator to grow NC-CP when other faculty members see success stories. Once one or two programs begin to take off at the college with positive outcomes, it gains momentum. Sherry stated, “I think that it is happening and it is happening at a faster speed, and it will continue to grow.” This is particularly true if there can be a correlation between NC-CP and increased enrollment (ESG, 2020). Administrators and faculty want to see increased enrollment and higher graduation rates,
if they can begin to see increased enrollment or believe there could be increased
enrollment, they may be more willing to lean into the design and implementation of NC-
CP.

**Case Summary**

The findings of this individual case study illustrate that there are four major
themes: student characteristics, organizational considerations, obstacles, and facilitators.
Overall, the themes support the theoretical framework and the review of literature,
however, with the interviews with seven administrators and faculty as well as three
employer partners, it is clear that this has not yet been brought to scale. NC-CP are
implemented on a case-by-case basis by individuals within the organization. It is also
evident that though most of the NC-CP originate as noncredit programs because of an
employer-driven need, the employer is not always pushing for credit articulation for the
participant, but it was noted that this does exacerbate equity gaps in the workforce. See
Table 5 for a snapshot of the themes and sub-themes, how they relate back to literature as
well as an example from a participant interview.

**Table 5**

*Summary of Themes and Sub-Themes for Case 1*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-Theme</th>
<th>Literature</th>
<th>Participant Input</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Characteristics</strong></td>
<td>Students that participate in noncredit programming at community colleges tend to be returning adults, unemployed or underemployed, or English Language</td>
<td>Rachel: “What I noticed was that those students sometimes require more support so they could be students who are returning to the classroom after a...”</td>
<td></td>
</tr>
<tr>
<td>Organizational Considerations</td>
<td>Learners (D’Amico, 2017; Davaasambuu et al., 2020; Ryder &amp; Hagedron, 2012).</td>
<td>number of years, they could be unemployed or underemployed”</td>
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<td>-------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Silos Between Academic and Workforce Division</td>
<td>Organizational change theory focuses less on the individual and more on the “structure and culture” which could impact change and inertia (George &amp; Jones, 2001).</td>
<td>Benjamin: “We had the workforce development… and it’s always been kind of separate.”</td>
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</tr>
<tr>
<td>Leadership</td>
<td>Leadership needs to communicate why there is a need for change and the benefits of the change (Armenakis &amp; Harris, 2009; Nordin, 2012; Self &amp; Schraeder, 2008).</td>
<td>Robert: There must be “strong advocacy from the highest level” and “If there’s no advocate and no one pushing for it, it would never have happened.”</td>
<td></td>
</tr>
<tr>
<td>Speed of Academia</td>
<td>Employers turned to noncredit workforce programs because they can be quick to develop new curricula, they are willing to pilot programs, and they can avoid the often lengthy curriculum review process (Van Noy et al., 2008).</td>
<td>Rachel: “Traditionally academia… moves very slow and the workforce side moves fast so I think the speed overwhelms some people who have been in academia a long time.”</td>
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<td>Alignment of Programs</td>
<td>Accreditation is intended to “assess the quality of the institutions within their membership” (Wheelan, 2016, p. 313).</td>
<td>Paula: “Some departments have worked with workforce to come up with agreements as far as how their programs are delivered, so that students would be eligible for credit.”</td>
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<td>Evaluation</td>
<td>Change management is a continuous process that reacts to both internal and external factors (Hussain et al., 2016).</td>
<td>Kelly: “What should we do better next time.”</td>
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<td>Obstacles</td>
<td>Change is most likely to be successful when employees are part of the process, namely the</td>
<td>Robert: “Lack of faculty buy-in… I think some of it is”</td>
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<td>Facilitators</td>
<td>Program Alignment and Degree Requirements</td>
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<td>planning, decision-making, and implementation of the change (Rothwell, 2009).</td>
<td>Objectives and competencies between noncredit and credit programs must match. If they do not match, then it can be difficult to figure out which course or courses the noncredit program is specifically replacing (Price &amp; Sedlak, 2018).</td>
<td>The employers do not always care if there is credit associated with their industry-driven training but instead, need the training program to produce employees with the required skills (ESG, 2020; Friedel, 2008).</td>
<td>Armenakis and Harris (2009) argue that in organizational change theory including individuals as part of the solution will increase the understanding the approach.”</td>
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<td>Leslie: “Has to be somebody with an eye to the academics to make sure that the rigor is in place and then aligned to what we consider to be a certificate or a degree” Isabelle: “The coursework may not fit the requirements of what they’ve considered to be credit bearing.” Danielle: “It certainly wasn’t [a conversation that] we need to have credit-bearing. In fact, we’ve expanded our tuition reimbursement program to include certificates and certifications. And not just… credit-bearing programs.” Isabelle: “In order for something to be reimbursed by tuition reimbursement dollars, and for someone to continue on their education, it has to be credit bearing.”</td>
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The findings for how the faculty, administrators and employers perceived that SCC design and implement NC-CP were synthesized into a program-level logic model. The researcher was able to take from the analysis the overarching concepts that the SCC was already doing, what they felt were facilitators, what they recommended, and how this could lead to more NC-CP. This can be found in Figure 7.
The inputs illustrate the resources that SCC needs to use in creating NC-CP. The researcher consolidated the information into four major resources. If SCC considers these resources and conducts the three activities illustrated in the outputs: program development aligned with pathway, pilot programs, and program review to determine crosswalk, SCC will be able to determine credit-articulating programs or assign prior learning credit. Finally, the logic model lists the outcomes in short, medium, and long-term categories. The researcher is assuming that there is leadership support based on the participant interviews, however notes, this will be impacted by both faculty buy-in and accreditation requirements.
Case 2 - Large Community College System

The interviews for this case study yielded rich data. This community college system is much larger than SCC and thus, the interviews were across several of the individual community colleges and only two were individuals that had worked at the system level. It was clear through the interviews that not one of the community colleges handles NC-CP the same, they all use different word choices to describe their programs and courses, and it is not managed at a system level because they are all independently accredited colleges. The same themes emerged through the data, except switching Student Characteristics with Student Considerations, and they will be discussed in the subsequent pages.

Student Considerations

The data from the LCC did not focus on the people that would be taking the courses but instead focused more on particular considerations of noncredit programs and the importance of NC-CP. Several participants expressed that participants were enrolling in noncredit workforce programs or even credit-articulating programs to get a job. Friedel (2008) argues that community colleges’ role is to strengthen the workforce through upskilling or reskilling. Specifically, Jackson stated “I’ve never had a student come up to me and say I’m here for intellectual enlightenment. It never happens.” Many noncredit students are not thinking about what is next on their educational pathway but are in the program specifically for the upskilling to get a job. Caitlin shared that it’s important “to help them recognize the long-term impacts that they could have. Not necessarily… for the academic reasons… but also a career pathway.” Ella stated that one college within LCC does just that. “We have a recruiter or representative from our admissions office
that comes into the class.” This person shares information about what else the college has to offer. Lastly, one participant expressed why the college should be encouraging NC-CP. Nora summed it up with “It saves people time and money and that’s part of our mission, and also it accelerates the time to completion of their credential.” The same argument was made by Klein-Collins (2010) when discussing the importance of prior learning assessment.

**Organizational Considerations**

**Standardization.** LCC is a very large system. There are sixteen colleges in the system, all of which are independently accredited, and thus they are independently operated with their own procedures for how they handle noncredit and credit programming. Figure 8 represents the organizational structure of LCC.

**Figure 8**

*Note: This organizational structure only shows 5 community colleges, however, it is a representation of all the colleges in the system.

Of the administrators that participated, there were five of the individual colleges represented in the data. It was clear that there was no standardization across the system. In three of the colleges, the workforce division reported to the chief academic officer, and
in two of the colleges, the workforce dean reported directly to the president as a cabinet-level position. In some cases, reporting to the chief academic officer could be perceived as a barrier to creating a new NC-CP (Samuels et al., 2019). Ella shared that if what the employer needed for workforce training was not already in the course catalog, the division could create it as a noncredit solution, however, it was not going to be articulated to credit or a pathway. She stated, “Unless it is a catalog equivalent course, I think it’s an 80% competency match, we wouldn’t even think about offering for credit.” They encourage employers to choose the fully built credit course or design a noncredit option. On the other hand, Alyssa shared that in her college, if an employer only wants part of a course, or they design something new, if it could lead to a future pathway, they create a special topics course that becomes transcripted credit.

So we don’t want to run the regular credit hour class because we can’t meet all the student learning outcomes or contact hours… We will work with our faculty member to outline what we are going to cover and then we have that faculty member who’s the subject matter expert review that content and match it up with the area that it most closely mirrors… it’s going to be a little bit easier if the student ever wants to use it as a portion of their for-credit training in the future.

Also related to standardization between the colleges and the system as a whole, is the computer systems utilized to track programming. The system that the colleges use for noncredit programs is a different system that is used to track credit bearing programs. From the interviews, Ella shared that one of the systems was able to be reviewed by the accrediting body and one was exempt which is why they kept the two systems separate. However, this also meant that if a student was trying to move from a noncredit to a credit program, the registrar or academic advising, may never know to consider the credits that might have been able to be articulated as potential prior learning credits. Alyssa did share
that the special topics classes that her college uses are able to be reflected in the credit-bearing computer database, so these are acknowledged when a student matriculates into a credit program. Interestingly, on the website for the LCC, if you select “Education & Training” and then one of the local community colleges, you will see career pathway choices as illustrated in Figure 9.

Figure 9

*Screenshot from Local Community College in LCC of Career Pathways*

Once you select a pathway, it leads you to a webpage shows the viewer the job prospects and the projected growth of the industry, allowing the student to make an informed decision about future wages. See Figure 10 for an example of the Diesel Technology screen.
Finally, on the bottom of the webpage, a viewer can see the certificate and degree programs available at the college. See Figure 11.
The website seems user-friendly if a student is looking to participate in a program but is not entering the program through an employer partner. It allows the student to weigh employment outcomes with the completion of a certificate or degree program.

Several of the participants noted that many training programs if at a different institution, would have been considered noncredit, had already been through the curriculum review process, and were in the college course catalog. To be responsive to employer partners, community colleges need to be nimble and cannot move at a slow pace, and therefore as Lisa stated, “the customer is always right type of mentality” is essential for the workforce divisions. Jacobs and Dougherty (2006) articulate that the expansion of workforce divisions at community colleges has strengthened employer relationships. As Jackson stated, this was “woven in the culture” and in some of the colleges still, they will give out fractional credit if only a part of a course is needed by an employer. This model had been created when this state’s community colleges had all been merged under one system as relayed by the former chancellor (personal communication, December 6, 2022). Since that time, some colleges have retained that principle while others have largely gotten rid of the fractional credit concept. This will be discussed again in Obstacles and Facilitators which will further define why fractional credit can be complicated, however, how it has also been an asset.

**Leadership.** It was clear from participant interviews that communication, collaboration, and transparency were all exceptionally important in designing and implementing NC-CP. Relating to communication Jackson articulated, “It really depends on the type of communication you’re doing, the type of listening you’re doing” and further from Kevin who states “better communication…upfront when you’re developing
the program.” Collaboration was also explicitly called out by Ella, and Jackson who shared things like “Well it’s collaboration… we brainstorm, came up with some ideas” and “so we can talk about any conflicts or challenges there might be between the noncredit or the for-credit” respectively. Lastly, transparency was acknowledged by the participants when expressing the importance of bi-weekly staff meetings or meetings between both academics and workforce. These characteristics are in line with the visual depicted in Figure 1 of Lewin’s Three Step Change Model that highlights communication, involving individuals, and transparency (Armenakis & Harris, 2009; Burnes, 2004; Choi & Ruona, 2011; Hussain et al., 2016; Nordin, 2012; Schein, 1996; Self & Shraeder, 2008).

**Speed of Academia.** Many participants expressed why so many programs start on the noncredit side and it always referred back to the speed of academia, or more explicitly how long it takes to create a new credit-bearing course. Particularly within LCC, if any college wants to create a new program, it has to be developed, often with the employer and faculty at the table, and then it goes through an internal curriculum review process. After the approval from the college curriculum review, it gets forwarded to the accrediting agency for approval, and finally, it would go to the system office where it is ultimately approved by the state’s Council on Postsecondary. It is often a year before any program makes it completely through the process. During that time, a college could pilot it on the workforce side of the house, evaluate the outcomes and make any changes prior to sending it through the process (Van Noy et al., 2008). One participant, Lisa, also reflected on having the data from the pilot including the number of participants that completed the program, average hourly rate upon hire, etc., and being able to utilize that
in your submission to the accrediting body. She stated, “Once we know we’ve got a good product, then we can submit the paperwork and the prospectus and all of that to get it moved into a credit program.” These hard facts make it difficult for anyone to deny the need for a new program. See Figure 12 to review the policy of the Council on Postsecondary regarding program approval.

**Figure 12**

*Policy of Program Approval for Large Community College System*

This policy does appear to have a work around, if needed, to approve a program prior to going before the Council, however, after hearing the participants share the length of the process, this must not be utilized that frequently. Though the speed of academia can be an organizational concern, two employer partners noted that they did not have any challenges getting what they needed because in most cases LCC already had what they needed in their catalog.

**Competition.** LCC is a large system, and because all the colleges act independently, they are also independently competing for any employer partners and
funding that may be available. It was noted by several participants that each college received state funding based on a performance funding model, but this only considered credentials and credit programs. Performance funding is intended to reward institutions that are producing results and outcomes and is implemented differently in each State that has adopted the practice (Favero & Rutherford, 2020). In this State, it behooves a college to translate much of the workforce training into credit, if applicable, because it increases their outcomes. Jackson shared, “You get points for the credit stuff, you get nothing for the noncredit… many colleges have looked to either quickly moving something from noncredit to credit or starting off offering it for credit.” Separately, Paul expressed that this creates competition between the colleges because one college would be able to train more participants in a technical program that another college may not have the opportunity to do. This competition sometimes “created an environment where they didn’t want to work together” which could exacerbate the independent nature of the colleges instead of acting as a system. Community colleges also are competing with third-party vendors who can also offer training programs. If they are not quick or nimble they will lose the opportunity to provide the training for the employer and potentially put a student at a disadvantage to not be able to matriculate into a credit-bearing program.

**Obstacles**

The next theme that emerged from the data is obstacles. This theme can be divided up into three sub-themes: faculty, program alignment and degree requirements, and employer considerations. Similar to the previous case, none of the obstacles presented were not able to be overcome, they just presented the reality of the community college system.
Faculty. First, the sub-theme related to faculty consists of faculty buy-in, faculty understanding, and instructor qualifications. Most participants expressed that faculty buy-in can be an obstacle. Jackson told the researcher that it is “mindset…and… distrust by traditional faculty” and he further stated, “It's been a hard push, still continues to be, to get them to think differently beyond the spring and the fall semester.” The literature illustrated that if the organization is not ready for change it is more likely to fail (Self & Schraeder, 2009). To support employer-driven workforce programs, it is vital that programs be offered whenever needed to meet the demand and not on a traditional semester schedule.

Faculty buy-in and faculty understanding are very similar but they also reflect a slightly different tone. Some faculty might buy in if they were able to better understand why the college operated the way it did. For example, some faculty wonder why the workforce division does not automatically use the course listed in the course catalog. Lisa shares,

Some faculty have been with us so long that they know that course catalog so well that they may wonder why we’re not looking at this existing certificate and just revising it. That’s a much longer process because other colleges that have that existing program, you’ve got to get their approval to change it too and then go through that [accrediting body] approval. (Lisa)

Alyssa shared a very similar sentiment saying, “Faculty didn't really understand it. And they didn't understand why we wouldn't just run the full class while you're running a welding class, just teach them everything.” Lisa continued in her statement to share that employers will not wait that long and would use a third party training provider to get it done. Most importantly, as noted by Charlie, “I never found it was… you know… faculty at the academic side being obstinate, it was always, ‘Hey, we can’t do this because it’ll
hurt our accreditation.’’ Charlie’s observation is that the workforce division also needs to understand the academic considerations along with the faculty understanding the goals of the NC-CP.

Finding qualified instructors was also highlighted as an obstacle. Nora stated, “Across the board is finding qualified faculty that have the technical background and skills and also the credential the degrees right to be able to teach in some of these programs.” For a program to be accredited the instructor or faculty member needs to meet particular qualifications and particularly in technical trade programs, this can be a barrier. Kevin furthered this sentiment with his statement, “Finding the talent and expertise out in industry and no matter what vocational program, you're trying to staff, finding someone who knows how to do it, but then also knows how to teach is the real challenge, right?” So not only was the concern the appropriate qualifications but the ability to teach in front of a classroom effectively.

**Program Alignment and Degree Requirements.** Specifically, this is subdivided into rigor, partial credit concerns, accreditation and curriculum review and system approval. These four challenges associated with program alignment and degree requirements were articulated throughout the interviews and documentation review.

**Rigor.** Rigor was discussed as a concern (Fouts & Mallory, 2010; Jacobs & Dougherty, 2006). Alyssa shared that faculty sometimes assume rigor is not there when you reduce the number of contact hours that a student is in a seat. However, she stated that she worked to overcome this by “involv[ing] our faculty and help[ing] them understand they’re creating it, they’re reviewing it, we’re not going to do anything that they don’t first… understand.” Several participants shared that LCC was beginning to
consider a competency-based approach to education, which could also impact NC-CP and allows faculty to consider something other than seat time as a measurement of rigor.

**Awarding of Partial Credit.** Though this was identified as something that several of the colleges within LCC, and part of the culture that had been created in the early 2000s, it is not without its challenges. Notably, if a course is broken up into modules so that partial credit can be awarded for the part that is delivered, how is this later transcripted, and what does it count towards? How does a student take the rest of the course if needed for their degree? Nora shared that if the student came back “in a perfect world, they would only enroll in what was left of the class. We still have some work in this area.” Sometimes Nora stated that with a faculty evaluation, it is determined that the student has learned the remaining competencies through their work experience and full credit can be awarded. Kevin also shared that this partial credit, sometimes referred to as fractional credit, that while he was employed by the system “I got feedback over time… What good is a half or three-quarter credit?”

**Accreditation and System Review and Approval.** These two concepts flow together. The lengthy process that is involved with bringing a program through accreditation to system approval is a barrier to immediately offering credit for a program. First, the accreditation of the programs and individual colleges was a large concern. The colleges in LCC are all independently accredited, and therefore each program at each community college needs to go through the accreditation process. This was discussed by Kevin when he expressed how important understanding the seat time and outcomes for each program is to be able to “answer to the accreditation agency.” Charlie shared that it would be “more seamless” if they were accredited as a system, but it makes it more
“important that the individual colleges work together across their units.” He provided an example that if one community college created a program, it could be copied by a second college but it still has to go through the review of the accrediting body. After review from the accrediting body, the programs head to the system office and the Council of Postsecondary for approval. Again, because these all must be done individually, even with the same program, it just duplicates work and could turn off an employer partner.

**Employer Considerations.** Employers often look to community colleges to create the pipeline of students, as well as continue to offer skill development as an individual progresses in their career (ESG, 2020). There were two participants who felt that the employer was vested in the future success of the participant and may be interested in credit articulating for their employees, but there were several who felt this was not something the employer cared about. Jackson summarized his thoughts on this topic with

> I’ve never had an employer asking for training who cared that it was for credit… and some of them didn’t want it to be for credit because they didn’t want… to encourage students to see higher, you know, credentials, and then want more money or leave.

Claudette, one of the employer participants, indicated that offering something for credit could be a barrier because of the lack of flexibility for seat hours, however, as an employer, she did not care about credit. She cared about the competencies, however, she did acknowledge that the employees did care about credit so they would allow the employee to choose the credit or non-credit option. She felt this helped retention when she stated, “Retention is a big deal in manufacturing as well. When you put that kind of time and money into an employee, you want that employee to feel like they are getting what they need.” It also was noted in one of the employer interviews that their policies
only allow tuition reimbursement for those working towards a degree. This would mean that noncredit programs would not be eligible for reimbursement.

Facilitators

There was a lot of evidence from the data regarding things that assisted LCC in creating NC-CP. Due to the rich nature of this data, this had to be narrowed further into sub-themes. Therefore, the theme of facilitators had five sub-themes: employer-driven, faculty, program development and review, credit opportunities, and increased attainment and credentials.

Employer-Driven. First, it was clear from every interview participant that the NC-CP that emerged from the workforce division were employer-driven. Raina (2018) confirms that competition in today’s environment would require any business, including community colleges, to remain agile to remain relevant for workforce development in an ever-changing global economy. Figure 13 illustrates the employer engagements, customized training, and assessments conducted in 2020 - 2021 throughout LCC.

Figure 13

*LCC Workforce Solutions 2020-2021 Annual Report Regarding Employer Engagement*
Further, one of the employer interviews listed all of the employer-driven programs that they had engaged specifically with the community college. Claudette stated, “We’ve had a number of them… we started with leadership. Then we moved into computer… then we went into our apprenticeship program.” Kathy echoed this opinion when sharing her experience with one of the local community colleges. She stated, “We’ve done a couple of different pathways and different venues.” Most important was the confirmation that the community colleges created employer-driven training programs. Kathy was sharing how they created their programs with LCC and affirmed “So just a lot of curriculum design in terms of what we wanted and the outcomes that we want in it.”

**Faculty.** It was a facilitator to have faculty buy-in and champions. Deetz et al. (2000) argue that employees that believe in the mission are “more likely to go forward with the actions that are consistent with the company goals” (Nordin, 2012, p. 240). Alyssa shared that “we always include our faculty of the discipline at hand because they’re going to be the ones that know what existing curriculum is there and what’s going to be new.” She continued during the interview to share that as they “penetrated into each of those disciplines” the faculty began to become the champions with the employer partners. It was just as important to have everyone at the table when developing the programs for the employer partner. As Ella stated, “I don’t think you can leave anybody out of the conversations.” Lastly, it was a facilitator to have good relationships between workforce and academics. Ella provided this advice, “be intentional and strategic about what you’re working to do.” From the employer's perspective, Kathy shared that it was important for the faculty to work directly with their own subject matter experts. “We paired up… the subject matter expert, so for instance, the professor that was going to be
teaching safety, we had him meet and spend some time with our safety manager.” This illustrated buy-in and support from the employer and the faculty.

**Program Development and Review.** Particularly, it is helpful to have a database that tracks the outcomes of the program. The ability to share the success helps in the accreditation as well as when determining the sustainability of the programs to see if it is worth bringing it through the accreditation process. It was also helpful to be able to use the workforce division as an incubator or pilot of new programs. Ella shared it “would more likely start through workforce where we can sort of pilot a program and not have to go through as much of the accreditation stuff to see… is this worth getting off the ground?” This allowed the college to determine if the program was effective, the ultimate need for training, and make any changes after an evaluation. Jackson described piloting these courses in workforce as an “incubator for research and development.” Lastly, both the responsiveness and flexibility of the workforce division make it ideal to launch programs quickly for employer partners while waiting to go through the lengthy curriculum review process (Jacobs & Dougherty, 2006; Van Noy et al., 2008). Kathy, one of the employer partners stated, LCC was “incredibly responsive, incredibly creative, and year, very, very, flexible.”

**Credit Opportunities.** There was a lot of discussion around fractional credit opportunities throughout the Large Community College system. The researcher has addressed this in Organizational Considerations as well as within the Obstacles, however, it is also a facilitator as it does provide participants with some credit to begin or continue their higher education journey. The participants shared several different models of how fractional credit was being utilized throughout the system. At one community college it
was called Business and Industry credit (BIT) and in one college they were referred to as Special Topics courses. The BIT credit is only awarded after a student matriculates but Nora explains that the employer “still need that training… and there’s not a desire to offer credit or what they want does not exactly fit into a nice 3 to 4 to 5 credit hour modules” the college is able to put into the record the BIT credit so it can later be considered on a student’s transcript. Special topics courses are often used when what an employer needed was a partial match to an existing course. Alyssa acknowledged that the “special topic system that [the college] has developed is really the accelerator” because otherwise, these would be noncredit courses from the beginning and not automatically articulate to credit. Figure 14 shows the number of individuals that were served and how much credit was awarded throughout the system.

**Figure 14**

*LCC Workforce Solutions 2020-2021 Annual Report Regarding Individual Enrollment*

<table>
<thead>
<tr>
<th>Workforce Training – Enrollment</th>
<th>CREDIT: 13,937 ENROLLMENTS NON-CREDIT: 19,325 ENROLLMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Education</td>
<td>3253 ENROLLMENTS</td>
</tr>
<tr>
<td>Continuing Education (Non-Workforce, community education courses)</td>
<td>550 COURSES</td>
</tr>
<tr>
<td><strong>Credit Awarded</strong></td>
<td>CREDIT HOURS AWARDED: 27,008 NON-CREDIT CONVERSION: 11,777</td>
</tr>
</tbody>
</table>

*Note: A 2016-2022 Strategic Plan measure is the workforce credit hour conversion rate, which converts clock hours to credit hours for non-credit courses (total contact hours divided by 15)*

The other credit opportunities for students within LCC included stackable credentials and nationally recognized credentials which were easier to translate into
It was agreed by the college and faculty that if the training resulted in a nationally recognized credential then it must have rigor. Some of the colleges also acknowledged that they retroactively awarded credit so as not to start the timeline on students' academic clock in case it is years before they reenter the system. Alyssa also shared that they often will articulate credit for registered apprenticeship because they “recognize that there was academic rigor involved” and therefore they award the credit. It is important to note the benefit of credentialing for students: postsecondary credentials increase lifetime earnings, career advancement, and make a student more competitive in the workforce (Bishop, 2019; ESG, 2020; Van Noy et al., 2008).

**Attainment.** The last sub-theme under facilitators is the overarching goal to increase attainment and credentials for the state where LCC is located. HCM Strategists (2023) states “Statewide attainment goals seek to increase the educational levels of the adult population and are aligned to address the workforce needs of the state” (p. 1). The goals are important because it allows for intentional work towards increasing educational attainment and in most states, is also disaggregated across race and ethnicity (Lumina Foundation, 2023). Nora states “We also know that part of our mission is to increase the educational attainment” in the state. This goal provides additional motivation for the colleges to work toward certificates, credentials, and degrees that will count toward the state’s attainment goal.

**Case Summary**

The findings of this individual case study illustrate that there are four major themes: student considerations, organizational development and change, obstacles, and facilitators. Overall, the themes support the theoretical framework and the review of
literature, however, the community college system represents over fifteen independent colleges and because they are independently operated, they do not follow the same policies around NC-CP. Rothwell et al. (2009) argue that organizational development is intended to solve complex challenges, such as meeting employer needs and developing NC-CP, however, the internal structure of the colleges needs to be considered when implementing change. A former chancellor (personal communication, December 6, 2022) discussed how LCC’s fractional credit system had been developed in the early 2000s, and at that time was seemingly brought to scale. However, the data illustrates that as leadership has changed the model is now increasingly different at each institution. Ella corroborated, “That person who laid out that dictum is no longer with the system and things have changed dramatically as a result of that.” However, because of previous leadership, it also appears that many programs have already been articulated to credit that elsewhere in the country may still be offered in a noncredit status. There is continued work on alignment across the system, but overall, the community college system is striving to increase credentials. See Table 6 for a snapshot of the themes and sub-themes, how they relate back to literature as well as an example from a participant interview.

Table 6

Summary of Themes and Sub-Themes for Case 2

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-Theme</th>
<th>Literature</th>
<th>Participant Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Considerations</td>
<td>Community colleges’ role is to strengthen the workforce through upskilling or reskilling (Friedel, 2008).</td>
<td>Jackson: “I’ve never had a student come up to me and say I’m here for intellectual enlightenment. It never happens.”</td>
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<tr>
<td>Organizational Considerations</td>
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<tr>
<td><strong>Standardization</strong></td>
<td>Reporting to the chief academic officer could be perceived as a barrier to create a new NC-CP (Samuels et al, 2019)</td>
<td>Ella: Reporting to the provost at her college stated, “unless it is a catalog equivalent course, I think it’s a 80% competency match, we wouldn’t even think about offering for credit.”</td>
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</table>
| **Leadership** | Lewin’s Three Step Change Model that highlights communication, involving individuals, and transparency (Armenakis & Harris, 2009; Burnes, 2004; Choi & Ruona, 2011; Hussain et al., 2016; Nordin, 2012; Schein, 1996; Self & Shraeder, 2008). | Jackson: “It really depends on the type of communication you’re doing, the type of listening you’re doing.”
Kevin: “Better communication… upfront when you’re developing the program.” |
| **Speed of Academia** | A college could pilot it on the workforce side of the house, evaluate the outcomes and make any changes prior to sending it through the process (Van Noy et al., 2008). | Lisa: “Once we know we’ve got a good product, then we can submit the paperwork and the prospectus and all of that to get it moved into a credit program.” |
| **Competition** | Performance funding is intended to reward institutions that are producing results and outcomes and is implemented different in each State that has adopted the practice | Jackson: “You get points for the credit stuff, you get nothing for the noncredit.”
Paul: This competition sometimes “created an environment where they...” |
<table>
<thead>
<tr>
<th>Obstacles</th>
<th>(Favero &amp; Rutherford, 2020).</th>
<th>didn’t want to work together.”</th>
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<tr>
<td>Faculty</td>
<td>If the organization is not ready for change it is more likely to fail (Self &amp; Schraeder, 2009).</td>
<td>Charlie: “I never found it was…faculty at the academic side being obstinate, it was always ‘Hey, we can’t do this because it’ll hurt our accreditation.””</td>
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<tr>
<td>Program Alignment and Degree Requirements</td>
<td>Rigor is often a concern of faculty (Fouts &amp; Mallory, 2010; Jacobs &amp; Dougherty, 2006).</td>
<td>Alyssa: She stated that she worked to overcome concerns of rigor by “involv[ing] our faculty and help[ing] them understand they’re creating it, they’re reviewing it, we’re not going to do anything that they don’t first… understand.”</td>
</tr>
<tr>
<td>Employer Considerations</td>
<td>Employers often look to community colleges to create the pipeline of students, as well as continue to offer skill development as an individual progresses in their career (ESG, 2020).</td>
<td>Claudette: “Retention is a big deal in manufacturing as well. When you put that kind of time and money into an employee, you want that employee to feel like they are getting what they need.”</td>
</tr>
<tr>
<td>Facilitators</td>
<td>Competition in today’s environment would require any business, including community colleges, to remain agile to remain relevant for workforce</td>
<td>Claudette: “we’ve had a number of them… we started with leadership. Then we moved into computer… then we went right into our apprenticeship program.”</td>
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<td><strong>Development in an Ever-Changing Global Economy</strong> (Raina, 2018).</td>
<td>Kathy: “We’ve done a couple of different pathways and different venues.”</td>
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<td>Deetz et al. (2000) argue that employees that believe in the mission are “more likely to go forward with the actions that are consistent with the company goals” (Nordin, 2012, p. 240).</td>
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<td>Alyssa: “we always include our faculty of the discipline at hand, because they’re going to be the ones that know what existing curriculum is there and what’s going to be new.”</td>
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<td>Ella: “be intentional and strategic about what you’re working to do.”</td>
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<td>Ella: It “would more likely start through workforce where we can sort of pilot a program and not have to go through as much of the accreditation stuff to see… is this worth getting off the ground?”</td>
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<tr>
<td><strong>Credit Opportunities</strong></td>
<td>Postsecondary credentials increase lifetime earnings, career advancement, and make a student more competitive in the workforce (Bishop, 2019; ESG, 2020; Van Noy et al., 2008).</td>
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<tr>
<td>Nora: The employer “still need that training… and there’s not a desire to offer credit or what they want does not exactly fit into a nice 3 to 4 to 5 credit hour modules”</td>
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<tr>
<td>Alyssa: The “special topic system that [the college] has developed is really the accelerator”</td>
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<tr>
<td><strong>Attainment</strong></td>
<td>“Statewide attainment goals seek to increase the educational levels of the adult population and are aligned to address the workforce</td>
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<tr>
<td>Nora: “We also know that part of our mission is to increase the educational attainment”</td>
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Program-Level Logic Model

The findings for how faculty, administrators and employers perceived that LCC design and implement NC-CP were synthesized into a program-level logic model. Like SCC, this program-level logic model is a representation of what the researcher was able to discern from the data analysis that was already happening at LCC, what was found as facilitators, and what would happen if this occurred systemwide. This can be found in Figure 15.

Figure 15

Large Community College System Program-Level Logic Model
In this logic model, the resources that LCC needs to consider implementing to NC-CP are listed in the inputs box. The participant interviews revealed that the activities in the Outputs section of partial credit awarded for existing credit, noncredit pilot programs, and nationally recognized credentials reviewed for credit, LCC would be able to determine what is credit-articulating and what may be eligible for prior learning credit. The subsequent outcomes for students, employer partners, the state, and the colleges themselves, are listed. This logic model is assuming leadership support and will be impacted by faculty buy-in, accreditation requirements, and cross-college approval.

Cross-Case Analysis

As discussed in Chapter 3, both cases were selected because they were markedly different. One was a small community college system with less than 15,000 students and less than five colleges, whereas one is a large community college system with over 39,000 students and over fifteen colleges represented. However, both cases examined have extensive workforce divisions within their systems and focus heavily on employer-driven opportunities to support the local and state economy as well as ensure their students graduate with certificates and degrees that put them into the workforce. Even though both community college systems have differing NC-CP offerings, they both have experienced similar paths to provide these opportunities to students.

The two cases that were explored in this research had similar themes that emerged in the findings. Both cases revealed the following themes: organizational considerations, obstacles, and facilitators. Both also presented a theme regarding students, however, one case was more focused on student characteristics whereas the other case presented data
on student considerations. This cross-case analysis will synthesize the findings across the themes and explore their general similarities and differences.

**Student Characteristics Versus Student Considerations**

The data that was presented from SCC was much more focused on the makeup of the student that attended a credit versus a noncredit class. The interview participants mentioned that students in noncredit programs tended to be returning adults, unemployed or underemployed or English Language Learners (Davaasambuu et al., 2020; Xu & Ran, 2020). The documentation review also illustrated that marketing material was highlighting that the programs were free because they were funded through the State’s Department of Labor and Training. These programs are intended to help unemployed and underemployed individuals.

At LCC however, the data revealed much more information about student considerations. For example, several interview participants highlighted that the students were attending noncredit programs to get a job (Davaasambuu et al., 2020). The outcome of the program was the focus, and less on the type of student enrolling. The administrators at LCC understood that outcomes mattered and though each college had its own mechanisms, were all trying to help participants and employers meet their goals.

**Organizational Considerations**

Both SCC and LCC shared the theme of Organizational Considerations. The sub-themes that emerged from both systems also provided quite a bit of overlap though there were a few differences. The sub-themes included standardization, silos between academic
and workforce divisions, leadership, speed of academia, alignment of programs, evaluation, and competition.

**Standardization.** SCC did not appear to have much data relating to standardization across the system. The size of the system allows police and procedures to be implemented across the system in a fairly seamless process. LCC, however, acknowledged that each college within the system does it differently. They are all independently accredited and therefore they do not operate as a system. This was represented in how each college is organizationally set up with workforce and academics, how noncredit to credit opportunities are implemented, and how the colleges use computer software to track workforce and academic students.

**Silos Between Academic and Workforce Division.** Next, SCC acknowledged the silo that occurred between the academic and workforce division. They noted that depending on the administrator within the department, this perception and reality of the two distinct divisions could be mitigated. The website, however, also lists academic programs separate from workforce programs. LCC, on the other hand, has some of their community colleges where the workforce division lives within academic affairs, however, it is still not a seamless operation. However, if you review any program listed on the individual websites, it leads you directly to workforce opportunities and outcomes. The language for academics and workforce is illustrated so that a student thinks they are seamless. This model, at least from a user perspective, allows a student to navigate to an education and a career simultaneously.
Leadership. The sub-theme of leadership emerged from both cases. Both system participants agreed that leadership is important in implementing noncredit to credit pathways. They both acknowledged transparency, however, SCC data highlighted the need to understand the priorities of leadership whereas, in the interview data from LCC, several participants discussed their regular meeting cadence between workforce and academia to mitigate any potential roadblocks. One participant from SCC also shared how effective it was having the administrator present in academic meetings to move projects along and share the industry perspective. Both systems discussed the necessity of communication and transparency.

Speed of Academia. It was explained by both SCC and LCC that often if there was a need for employer-driven training they were piloted within the workforce division because of the time it takes to go through the academic curriculum review process. At SCC it appeared that the curriculum review committee met once or twice a semester and it appears to be only once each semester at LCC. LCC is also further complicated because all of the colleges in the system have to approve the curriculum and not just the college looking to hold the course. Once approved, the accrediting body has to also approve the new program. Not only that, in both cases, the program would have to go to the Council of Postsecondary for final approval.

Alignment of Programs. SCC expressed the concern with aligning the noncredit programs so that when it matriculated it counted toward specific coursework on the credit side, however, because of accreditation the college has to ensure the competencies align. This was not noted as much of a concern with LCC mostly because many of what would
be traditional noncredit programs had already been translated to credit offerings. It
seemed more uncommon for employers to choose noncredit options because the
upskilling they needed was already from credit programs listed in the course catalog.

**Evaluation.** Evaluation was considered by both systems. SCC used evaluation as
a reflection on how to work better between divisions, whereas the LCC considered
evaluation to review and revise curricula after piloting them in the workforce division.
This exercise allows the college to see what could be modified in the program and obtain
some data before submitting the program through curriculum review.

**Competition.** LCC was alone cognizant of competition. The interviews indicated
that the way performance funding was designed in their state it created an environment
where the colleges were motivated to translate programs to credit because they were
rewarded by the number of credits and credentials issued. This sometimes came at the
expense of other colleges within the system.

**Obstacles**

Both cases identified obstacles as a theme. Similarly, as with both individual
cases, there were several sub-themes including faculty, program alignment, and employer
considerations.

**Faculty.** In both cases, there was a resounding note about faculty buy-in. Some
words used to describe this by the participants were “mindset” and “thinking differently.”
However, both cases identified faculty understanding as a bigger obstacle that if
addressed could yield positive results. In many cases, a shared understanding between
faculty and workforce would seem to go a long way. SCC specifically noted that the
faculty understood the value of creating the programs, whereas LCC faculty often did not understand why an employer would not want the whole course that is already listed. Both cases acknowledged that it is not always faculty trying to be obstinate but cognizant of the requirements of the accrediting body that causes the pushback.

Both systems were also concerned with manpower. SCC focused on this as a capacity issue, particularly with program review, whereas the LCC system articulated the complication of finding qualified instructors that would meet the accreditation standards if a course were to be offered for credit. Separately, it is also sometimes difficult to find an instructor that has the technical expertise from lived experience but also has the pedagogical experience to teach in a classroom.

**Program Alignment and Degree Requirements.** This was articulated slightly differently by both systems. Both were concerned with the rigor of NC-CP. However, SCC was also worried about the program alignment. Particularly, what does the noncredit course count towards in a degree program? LCC felt that the awarding of partial credits was complicated because similarly if a student matriculated how would the partial credit fit into the program of study? Lastly, LCC interviews spent a lot of time sharing the complication of the process of creating new programs. From the initial program inception to the approval through curriculum review, the accrediting body, and finally the State. This can be an unwieldy and time-consuming process if the college is trying to meet an immediate employer’s needs.

**Employer Considerations.** This was identified within both cases. There were two major concepts that both cases argued. First, many employers do not care if a program
has credit associated with them. Some do, but most simply want to ensure the incumbent worker gains the skills needed for the job. Second, if the employer is to fund the program through tuition reimbursement, many of these policies require credit to be associated with the program, and therefore noncredit programs would not be eligible.

**Facilitators**

The final theme that emerged from both cases was facilitators. Both cases had shared sub-themes of faculty and program development and review. However, SCC also discussed enrollment and momentum, whereas the LCC system discussed employer-driven, credit opportunities, and increased attainment and credentials.

**Faculty.** Both cases felt strongly that faculty buy-in is also a facilitator. If the workforce division includes faculty from the beginning, the faculty is able to understand what the employer needs, why it may or may not fit into an existing program, and help champion the effort. Both also acknowledged having a bridge between the workforce and academic divisions who could help bridge the conversations and serve as an intermediary. SCC also indicated it was important to have someone who would lead the development and implementation of an NC-CP to ensure the project made it through each required step.

**Program Development and Review.** Both community college systems also indicated the ease at which they could establish noncredit programs for employers in the workforce divisions within their institutions. This allows them to pilot programs, be flexible, and be responsive to employer needs. This also allows for an evaluation period of a program before bringing it through curriculum review. Both systems also
acknowledged that it was easier to overcome the concern of rigor if the noncredit program resulted in a nationally recognized certification, particularly in the awarding of prior learning credit.

**Enrollment.** The next sub-theme for SCC was a focus on additional enrollment if a student were to transition through an NC-CP. They identified the benefit if these opportunities were a feeder to their programs. Similarly, but not exactly the same, the LCC system’s awarding of fractional credit could be just enough push for a student to matriculate into a program they may have not had on their radar prior to taking the course. It seemed that the LCC system had a myriad of different ways they identified partial credit depending on the local community college, there were some opportunities at each location to take a partial credit course offering in their workforce division.

**Attainment.** LCC also felt it important to share through the emerging theme that increased attainment was a central tenant to the mission of their system. It was part of the culture that the goal for all students was credits and credentials where possible. This was certainly a motivator in already having most of their technical programs already credit-bearing.

**Cross-Case Summary**

Overall, the themes of student characteristics or considerations, organizational considerations, obstacles, and facilitators were somewhat similar between the two cases. The themes were consistent and continued to support the theoretical framework and the review of literature. There were some differences between the two cases, much of which was likely due to the size of the organization and an organizational change that LCC had
experienced in their merger in the early 2000’s with the first chancellor creating a cultural shift toward creating credit opportunities for students through the partial credit offerings. Though over the years, there have continued to be leadership changes and independent accreditation requirements, with the community colleges all having their own nuanced processes. They also do not all have the same organizational structure for workforce and academics. SCC does not experience as much complexity in the approval process even though it does have several layers. They do not have to also deal with obtaining buy-in from sixteen community colleges.

Chapter Summary

The findings highlighted the obstacles and facilitators to the design and implementation of NC-CP. Despite the vast differences between the two cases, there were many similarities in the findings. This illustrates that a program-level logic model can be created to show community colleges how best to approach NC-CP on their campuses. See Figure 16 for the resultant program-level logic model.
In this Cross-Case Program-Level Logic Model, the researcher consolidated the findings from both cases. The researcher considered the resources that seemed to produce the strongest outputs and outcomes if implemented collectively. The four activities listed in the outputs are the combined activities of both cases. These are all strong concepts that will increase opportunities for students if all were implemented at a community college. The researcher used arrows on this logic model to indicate that two of the activities, partial credit awarded and noncredit pilot programs, lend themselves better to becoming credit-articulating; whereas the two activities, program review to determine crosswalk and the nationally recognized credentials considered for credit, lend themselves to prior
learning credit. Both outputs will produce the short-term, medium-term, and long-term outcomes indicated in the logic model.
Chapter 5

Summary

This chapter will review the findings as presented in Chapter 4. The chapter will synthesize the findings of the case studies and articulate how it is supported by literature on non-credit to credit pathways. Ultimately, the researcher will provide a potential roadmap that can be utilized by community colleges when considering these pathways for students. This chapter will also outline the implications and limitations of the research as well as recommendations for future research.

A high school diploma is no longer the path to financial stability; a person needs at least a postsecondary degree or credential to earn a median income (Carnevale et al., 2019). Community colleges, or two-year institutions, are designed to provide access to all students; therefore, they need to create clear opportunities for all, including those that may enter school on a non-traditional path, to attain a certificate or degree. There has been research on the benefits of NC-CP for both students and institutions, as well as the barriers community colleges encounter in this process (D’Amico, et al.; 2014; ESG, 2020; Ganzglass, et al., 2011; Van Noy, et al., 2008). ESG (2020) also published a framework for community colleges to consider, however, it does not directly address the facilitators or barriers an institution may face during this process. To frame the study, the researcher utilized organizational change and organizational development as the two theoretical frameworks to answer the research questions. The researcher was interested in conducting this multiple, case study research to determine how community colleges can better position themselves to assist students in the quest for degree attainment.
Discussion

The study did validate much of previous researchers’ work in this field. However, it further expands the knowledge of how stakeholders described the process of designing and implementing NC-CP and provides some insight into a potential roadmap on how to bring NC-CP to scale. The four research questions that precipitated this study are outlined below.

**RQ 1: How do stakeholders describe the process of designing and implementing non-credit to credit pathways at two community colleges?**

The analysis revealed that the process in the two cases was very similar. However, the size of LCC added a little more complexity because of the extra layer of the system office and the required alignment between all of the colleges in the system. Despite this complexity, LCC had found a system through fractional credit opportunities. This affords the colleges the opportunity to provide credit when offering a workforce development program that does not teach all of the competencies in a course that is already listed in the course catalog. On the other hand, SCC does not offer fractional credit but instead has created a few pathways that did lead from an NC-CP. In SCC’s case, it was due to champions from within the organization shepherding the courses through the process while concurrently piloting in the noncredit division. Without a person to ensure each step continues to move forward, these would not ultimately end up with a credit articulation.

**RQ 2: How do stakeholders at each community college describe the obstacles in the design and implementation of non-credit to credit pathways?**
The obstacles that were revealed during the analysis did have some alignment with the literature however, there were some nuances that are worth noting in the discussion. The obstacles most in agreement with the literature were faculty and program alignment. From a faculty perspective, both cases argued that faculty buy-in could be an obstacle. The organization and the individuals within the organization need to agree that the proposed change is the correct course of action. If the organization is not ready for change it is more likely to fail (Self & Schraeder, 2009). Fouts and Mallory (2010) argued that noncredit programs are not the primary mission of the community college which ultimately impacts their buy-in. However, much of what the data revealed was that it was not really buy-in that was the obstacle, but faculty understanding. If the faculty understands the employer's needs, the importance of starting a program quickly, and ultimately the interest, or not, to make the program credit-bearing, they may be more willing to help champion the effort.

Several obstacles highlighted were obstacles that may present a barrier due to the accreditation. For example, instructor qualifications were highlighted as potential challenges. In order for the course to be accredited, an instructor must meet certain qualifications. This can be difficult sometimes, especially when teaching a course in the technical trades. Grover and Miller (2018) noted that this can also be a challenge because it is often more expensive to find instructors with all the required qualifications. Another obstacle highlighted by LCC specifically, was the measurement of seat time for a credit-bearing course. Employers noted this as an observation by their incumbent workers when they were trying to upskill and were deciding whether to take a noncredit workforce program or the credit-articulating course. This is a challenge of the accreditation held by
the college, however previous literature argues that there is a need for competency-based education (Ganzglass et al., 2011).

Three obstacles related to program alignment were identified. These included rigor, alignment with degree programs, and partial credit. The data agreed with the literature that noncredit program alignment with a degree program can be difficult for faculty when not included in early conversations (Price & Sedlak, 2018). Ensuring that the competencies in a degree course have been met in an existing noncredit course can be difficult at best, and it is on the faculty member to sign off on their concurrence. Similarly, both cases argued that faculty tend to question the rigor of noncredit courses (Fouts & Mallory, 2010; Jacobs & Dougherty, 2006). Lastly, the data revealed that the partial credit that is issued through LCC can present a problem when a student matriculates because it is not always clear what the one or two credits will count toward particularly if the student still needs the remainder of the competencies in a specific course.

One obstacle identified through the employer interviews was that most employer tuition reimbursement policies require that the employee be enrolled in a matriculating degree-granting program. Noncredit programs do not fit this definition and though some states are able to offer these programs through grants to employers that is not always the case (D’Amico et al., 2014). Students enrolling in noncredit programs are not eligible to apply for federal student aid (ESG, 2020; Grubb et al., 1997; Jacobs & Worth, 2019).

**RQ 3: How, if at all, do stakeholders perceive that their community college overcame obstacles in the design and implementation of non-credit to credit pathways?**
Both cases did identify ways that their systems had overcome barriers. Some of these were identified in the framework provided by ESG (2020). The data illustrated that it was important to have a program manager to ensure the project stayed on track. This was identified by both the college administrators and the employers. Similarly, it also identified the importance of having the right people at the table from the beginning. It is ideal to involve faculty in discussions with employer partners. This results in faculty buy-in and understanding of the competencies required and the flexibility needed by the employer for the potential students to be successful.

RQ 4: How do stakeholders at each community college describe the factors that facilitate the design and implementation of non-credit to credit pathways?

The facilitators identified between both cases mostly surrounded faculty and program development. When used with a positive connotation, faculty buy-in was identified as a facilitator. Change is most likely to be successful when employees are part of the process, namely the planning, decision-making, and implementation of the change (Rothwell, 2009). Also, Nordin (2012) argued that employees that support the mission are more likely to support the organization’s goals.

LCC articulated the need for the NC-CP to be employer-driven. Workforce divisions in community colleges have strengthened relationships with employer partners and allows the colleges to lead in upskilling and reskilling the workforce (ESG, 2020; Jacobs & Dougherty, 2006). Workforce divisions are also a good opportunity to pilot new programs before taking them through curriculum review and this allows for needed innovation as well as the need to be flexible and nimble (Van Noy et al., 2008).
Another facilitator identified through LCC was the momentum a student may have if they already have some credits. One example is prior learning credit. Prior learning credit is awarded through the evaluation of previous training or life experience through prior learning assessment (PLA). A study conducted by the Council for Adult and Experiential Learning (CAEL) in 2010 showed that “56 percent of adult PLA students earned a postsecondary degree within seven years while only 21 percent of non-PLA students did so” (Klein-Collins, 2011, p. 1). Having partial credit or prior learning credit could provide the encouragement needed to enroll in a degree-granting program (Klein-Collins, 2011).

**Implications**

Ninety-nine percent of jobs created since the great recession have gone to a person with at least some college (Carnevale et al., 2016). Bringing NC-CP to scale across community colleges in the United States is one way to increase attainment. Students are investing time and money in noncredit programs whether for upskilling or reskilling opportunities and NC-CP are one way to assist students to transition into a higher education degree-granting program.

Accreditation was identified as an obstacle and barrier for courses to be articulated from noncredit to credit pathways. It is understandable why colleges would have a hesitancy to afford a student credit for a noncredit program for fear of losing the accreditation. Without accreditation, an institution cannot receive any Title IV federal financial aid (Wheelan, 2017). For many colleges, and especially for community colleges, federal funding makes up approximately 18% of their budget (Community College Research Center, 2022). When considering articulating academic credit for a
noncredit program, New England Commission of Higher Education (NECHE) (2020) cites in their standards:

> When credit is awarded on the basis of prior experiential or non-collegiate sponsored learning alone, student learning and achievement are demonstrated to be at least comparable in breadth, depth, and quality to the results of institutionally provided learning experiences (p. 13).

Similarly, the Southern Association of Colleges and Schools Commission on Colleges (SACS) (2018), the accrediting body for LCC, has a standard that requires published policies to support “evaluating, awarding, and accepting credit not originating from the institution… ensures (a) the academic quality… (b) an approval process with oversight by persons academically qualified…” (p. 103). This standard further defines noncredit activities within this standard. This leaves the decision of articulating credit up to the individual college with the understanding that the quality and rigor is certified by the receiving institution. Upon further research, in a joint statement, both the American Association of Collegiate Registrars and Admissions Officers and the Council for Higher Education Accreditation with the American Council on Education (ACE), argues that social equity and the intelligent use of resources require that validated learning be appropriately recognized wherever it takes place. Individual institutions have the autonomy to make the ultimate decision regarding transfer of credit according to their own academic mission and standards (Reilly et al., 2020, p. 1).

This aligns with the vision that community colleges should find a way for NC-CP.

Though the data analysis illustrated several obstacles there were some references to the ability to do prior learning assessment of existing noncredit programs. This can be a real solution to providing credit for these workforce opportunities that can produce positive results. “Hispanic PLA students earned bachelor’s degrees at a rate that was almost eight times higher than that of Hispanic non-PLA students” (Klein-Collins, 2011,
p. 1). For Black students, if they can capitalize on PLA, they can save an average of 14.2 months for time to complete a bachelor’s degree (Klein-Collins, 2011). Prior learning assessment is done at the institutional level and not all colleges implement the same level of review on an incoming student's portfolio to determine potential credit opportunities.

**Conclusion**

The two cases explored in this multi-case study illustrated how these two community colleges design and implement NC-CP. Though both colleges were at different levels of implementation, enough information was gleaned to provide input for other colleges to learn how to best consider implementing NC-CP on their campuses. If community colleges consider all opportunities in providing credit, where applicable and acceptable by accreditation, they will be able to provide opportunities for students who may not have otherwise considered further postsecondary attainment.

Community colleges need to implement several measures to help students successfully transition from a noncredit program into a credit pathway. From an internal perspective, **community college presidents should collaborate with both academic affairs and workforce divisions**, regardless of where they are located in the institution. This constant communication will make it natural for individuals that work in the workforce division to include academics when meeting with employer partners. This synergy will help in creating the necessary buy-in and understanding from faculty.

Next, **community colleges should implement policies and actions that have recruiters, or someone designated from the college, speak to every cohort of students in a noncredit program about future opportunities at the community college.** Most noncredit students are enrolled in their current program to get a job or upskill in their
current job. They are not necessarily thinking about their next step and likely do not know what their opportunities could be as a result of the program they may be participating in. This is an opportunity for the college to share the potential credit value of their current program and applicable pathways if a student were to continue on in their educational path. It also lets each student in the room know that they are welcome at the college as a student.

Lastly, if a noncredit program cannot be directly articulated into a credit pathway, each noncredit program at the community college should be provided an academic crosswalk for prior learning credit so that if a student returns as a matriculating student, the student is aware of the credit potential. It should not be on each individual student to request this review. The community colleges need to reduce barriers for student completion of degrees.

Future Research

This research focused on the obstacles and facilitators to design and implement NC-CP. Further quantitative research could be conducted to determine the outcomes of students that were enrolled in noncredit programs and subsequently matriculated into higher education. This research could review employment outcomes and wage earnings with subsequent education. Additional qualitative and quantitative research could also be done to review prior learning assessment as it relates specifically to noncredit workforce initiatives at community colleges, particularly if noncredit programs were provided prior learning credit for students and what was the subsequent postsecondary attainment, employment outcomes, and wage earnings. All these research opportunities should consider disaggregating data by race, ethnicity, and gender.
Appendix A

IRB Research Protocol

Please complete this form if you believe your project to fall under an Exempt Category of 45 CFR Part 46.104. Please review the Exempt Category criteria below and the Exempt Category Guidance documents carefully, including the definitions and limitations. Check the appropriate Exempt Category(ies) that your research falls under. Applications that do not meet the criteria for exempt review will be withdrawn and you will be asked to complete the INITIAL, IRB APPLICATION and submit as a NEW STUDY.

1) EXEMPT CATEGORY – PLEASE CHOOSE ONLY ONE

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<th>Category</th>
<th>Citation</th>
<th>Description</th>
<th>Conditions/Allowances/Limitations</th>
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<td>1</td>
<td>104(d)(1)</td>
<td>Research in established or commonly accepted educational settings, involving normal educational practices.</td>
<td>Not likely to adversely impact students' opportunity to learn or assessment of educators providing instruction</td>
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<td>1</td>
<td>104(d)(2)</td>
<td>Research only includes interactions involving educational tests, surveys, interviews, or public observation (including visual or auditory recording) if at least one of the following criteria is met:</td>
<td>Data Collection Only; May include visual or auditory recording; May NOT include intervention, only interactions</td>
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<td>(i) Recorded information cannot readily identify the subject (directly or indirectly linked)</td>
<td>Surveys &amp; Interviews: No Children; Educational tests or observations of public behavior: Can only include children when investigators do not participate in activities being observed</td>
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<td>(ii) Any disclosure of responses outside of the research would not reasonably place subject at risk (criminal, civil liability, financial, employability, educational advancement, reputation)</td>
<td>Surveys &amp; Interviews: No Children; Educational tests or observations of public behavior: Can only include children when investigators do not participate in activities being observed</td>
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<td>(iii) Information is recorded with identifiers or code linked to identifiers</td>
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<td>104(d)(3)(i)</td>
<td>Research involving Benign Behavioral Interventions (BBI) through verbal, written responses, (including data entry or audiovisual recording) from adult subject who prospectively agrees and at least one of the following met:</td>
<td>No Children; May not include medical interventions; Subject prospectively agrees; (ii) BBI must be: Brief in duration; Painless/harmless; Not physically invasive; Not likely to have a significant adverse lasting impact on subjects; Unlikely that subjects will find interventions offensive or embarrassing; (iii) No deception unless participant prospectively agrees.</td>
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<td>B. Any disclosure of responses outside of the research would not reasonably place subject at risk (criminal, civil liability, financial, employability, educational advancement, reputation); OR</td>
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<td>C. Information is recorded with identifiers &amp; IRB conducts limited review</td>
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| 4        | 104(4)(4)| Secondary Research for Which Consent is Not Required: Use of Identifiable Information or Identifiable Biospecimen that have been or will be collected for some other primary or ‘initial’ activity, if ONE of the following criteria met: | • No primary collection from subjects for research;  
• Allows Both Retrospective and Prospective Secondary Use |
|          |          | (i) Biospecimens or information is Publically Available; OR | • Must be publically available |
|          |          | (ii) Information recorded so subject cannot readily be identified (directly or indirectly/linked); Investigator does not contact subjects and will not re-identify the subjects; OR | • PI does not contact |
|          |          | (iii) Collection and Analysis involving Investigators’ Use of Identifiable Health Information when use is regulated by HIPAA “health care operations” or “research” or “public health activities and purposes”; OR | • HIPAA still applies;  
• HIPAA protections include authorization or waiver of authorization;  
• If research generates identifiable private information it is subject to specified federal privacy laws (see IV for list) |
| 5        | 104(4)(5)| Research and demonstration projects supported by a Federal Agency/Dept. AND Designed to study...improve...public benefit or service programs | • Must be posted on a Federal Website |
| 6        | 104(4)(6)| Taste and Food Quality | |

2) PROJECT TITLE

A Case Study of Noncredit to Credit Pathways at Community Colleges

3) PERSONNEL

INSTRUCTIONS: Include Principal Investigator’s, co-investigator’s, and student investigator’s title and College/Dept. If research will be used for thesis or dissertation, include thesis/dissertation approval form and thesis/dissertation proposal.

a) PRINCIPAL INVESTIGATOR (NAME, COLLEGE/DEPT., PHONE)

Kathy Peno, Ph.D., URI Department of Education, 401-523-1477

b) CO-INVESTIGATOR(S) (NAME, COLLEGE/DEPT., PHONE)
c) STUDENT INVESTIGATOR(S) (NAME, COLLEGE/DEPT., EMAIL)

Amy Grzybowski, URI Department of Education, agrzybowski@uri.edu

*** If research will be used for thesis or dissertation, include thesis/dissertation approval form and thesis/dissertation proposal

d) KEY PERSONNEL (NAME, COLLEGE/DEPT., EMAIL)

4) LOCATION OF RESEARCH

INSTRUCTIONS: List specific site(s) at which the research will be conducted. If non-URI entities will be used, provide written authorization from the appropriate site authority for the study to be done at that site must be provided. Permission must be granted from Principal, Superintendent or other individual with responsibility over the site.

Small Community College System and Large Community College System

5) RESEARCH DESIGN AND METHODS

a) PURPOSE AND PROCEDURES

INSTRUCTIONS: Briefly describe study purpose and procedures associated with the proposed study including whether the study activities differ from standard practice, and if so, how. Also, should data collection instruments be used, please provide a copy of each instrument as well as ensure this section of the application clearly describes procedures associated with the instrument including who will administer and how, such as in person, by phone, mail, e-mail, web site, how often, the amount of time required to complete the instrument, etc.

The purpose of this qualitative case study is to explore the process that stakeholders in a community college describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree. This study will not differ from standard practice.

This study will use interviews and document and artifact review. The participants will be selected through purposeful sampling. The researcher will administer the interview. Only one interview is anticipated for each participant. To facilitate setting up the interviews with each participant, I will send an email introducing the research, its purpose, and how it will be used. The participants will be provided with a description of the research study, and I will answer any questions the participants have about the research. I will disclose that I am collecting data to better understand how each institution designs and implements multiple NC-CP for students. I will inform participants that I will maintain their privacy and confidentiality. Each participant will be required to sign an informed consent form before participating in the interview. Interviews will last for approximately 25-45 minutes, and they will be scheduled at the convenience of both time and location of the participant. Some of the interviews may be held via Zoom with permission of the participants. Other may be held in a face-to-face format. Permission to audio or video record the interviews will be requested,
b) PARTICIPANT POPULATION
   i) Total number of participants (or number of participant records) for whom you are seeking URI IRB approval: 
      20 (up to 20)
   ii) Will all participants be above the age of 18? YES X NO □
   iii) Will any participants be decisionally impaired? YES □ NO X
   iv) Will any participants be non-English speakers? YES □ NO X
   v) Are prisoners the intended study population? YES □ NO X

c) RECORDING
   i) Will subjects be audiotaped or videotaped? YES X NO □
   ii) If yes, describe procedures associated with such taping as well as how tapes will be used, who will have access, and final disposition of the tapes.

For in-person interviews, I will request to record the interview through Otter AI. "Otter uses AWS S3 storage and enables AWS SSE (Server Side Encryption) on data" and it also encrypts the data. (Lai, 2022). For the zoom interviews, I will keep the recordings in a private file that is digitally encrypted and only I will have access to the file. I will keep the data for five years following final dissertation.

6) RECRUITMENT

INSTRUCTIONS: Briefly describe the recruitment procedures associated with the proposed study. Please provide a copy of any materials (e.g., emails, flyers, verbal scripts) that will be used to recruit subjects.

I will send an email invitation after purposeful sampling. The email is different depending on if I am seeking faculty/administrators from an institution or employer partners to the institution. I will be selecting participants through purposeful and snowball sampling. The emails are attached.
7) INFORMED CONSENT

a) PROCEDURES FOR CONSENT

INSTRUCTIONS: For survey and interview research, URI generally requires consent be obtained from subjects with or without collecting identifiers. Describe the consent process (e.g., explain when and where consent will be obtained). If a waiver of consent or waiver of documented consent is being requested, please ensure this section provides appropriate justification for such a waiver. For more information on waiver of consent or waiver of documented consent please see https://web.uri.edu/research-admin/office-of-research-integrity/human-subjects-protections/irb-application-review-process/. All IRB forms, policies, procedures, resources and tools can be found on the Research Resources page and IRBNet.

The informed consent will be acknowledged in the recruitment email. When the participant agrees to participate a copy of the consent form will be emailed to the participant for review prior to the interview. The participant will either sign, scan and return the consent agreement if the interview will be conducted via Zoom or if in person, the participant can sign the consent form in person before the interview begins. The participant will be asked to complete the informed consent form prior to the start of the interview. A copy of the informed consent is attached.

b) CONSENT DOCUMENTS

INSTRUCTIONS: Provide a copy of the document(s) that will be used to obtain consent such as a consent form, information sheet, survey cover letter, verbal consent script or letter to subjects. Please ensure the document(s) to be used for consent include the elements of an informed consent document. If possible, please use IRB approved templates located at https://web.uri.edu/research-admin/office-of-research-integrity/human-subjects-protections/irb-application-review-process/. All IRB forms, policies, procedures, resources and tools can be found on the Research Resources page and IRBNet.

The consent documents to be used include:

- Informed Consent □
- Child Assent □
- Parental Permission □
- Verbal Consent Script □
- Verbal Assent Script □
- Verbal Permission □
- Other □

8) SECURITY AND CONFIDENTIALITY PROCEDURES

INSTRUCTIONS: Briefly describe how confidentiality of the subject’s identity will be maintained. Please ensure this item includes whether/how subjects will be identified, procedures for protecting subject identity including security procedures, the final disposition of identifiers, who will have access to subject identifiers, etc. Refer to Exempt 2 Guidance or Exempt 3 Guidance for IRB required data management and security procedures if requesting Exempt Category 2 or 3 with sensitive and identifiable information.

will keep a code book where I will have participants real names and their pseudonym. This will be locked in an office where only I will have a key. I will only use their pseudonyms in my written work.
9) FUNDING SUPPORT AND CONFLICT OF INTEREST

INSTRUCTIONS: Specifically describe the funding support associated with this study and whether a conflict of interest exists with the PI or any key personnel. If such a conflict exists, this must be clearly described and submit a completed copy of the Significant Financial Interest disclosure form located here: https://web.uri.edu/research-admin/office-of-research-integrity/conflicts-of-interest-overview/. All IRB forms, policies, procedures, resources and tools can be found on the Research Resources page and IRBNet.

N/A

10) CERTIFICATION AND SIGNATURE

☒ I agree to follow all applicable federal regulations, guidance, state and local laws, and university policies related to the protection of human subjects in research, as well as professional practice standards and generally accepted good research practices for investigators, including, but not limited to, the responsibilities described in the URI IRB policy.

☒ I verify that the information provided in this IRB Application for Human Subjects Research is accurate and complete.

☒ I verify that this research is consistent with the Exempt Category checked above as described in 45 CFR 46.104.

☒ I verify that the Principal Investigator, Co-Investigator(s) and Student, if using research for Master’s Thesis or Doctoral Dissertation, have signed the package in IRBNet.
Appendix B

Consent Forms

THE UNIVERSITY OF RHODE ISLAND

IRB Consent Form for Research

Kathy Peno, Ph.D.
School of Education
A Case Study of Noncredit to Credit Pathways at Community Colleges

STUDY TITLE

A Case Study of Noncredit to Credit Pathways at Community Colleges

PRINCIPAL INVESTIGATORS

Principal Investigator: Kathy Peno, Ph.D.
kt_peno@gmail.com
Office: (401) 523-1477
Email:

Secondary Investigator: Amy Grzybowski
agrzybowski@uri.edu
Office (401) 479-1120
Email:

KEY INFORMATION

- The purpose of the study is to explore the process that stakeholders in two community colleges describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree.
- If you choose to participate, you will be asked to participate in one virtual or in-person interview sometime between September and February 2023. This will take approximately 25 and 45 minutes.
- There will be minimal risks with this research.
- There is no direct benefit of this study for participants.
- You will not be paid for your participation.
- You will be provided a copy of this consent form.
- Taking part in this research project is voluntary. You don't have to participate and you can stop it any time.
- The interview will be recorded.

INVITATION

You are invited to take part in this research study. The information in this form is meant to help you decide whether or not to participate. If you have any questions, please ask.

March 2019

IRB NUMBER: IRB2122-242
IRB APPROVAL DATE: January 12, 2023
IRB EXPIRATION DATE:
IRB
Consent Form for Research

Kathy Peno, Ph.D.
School of Education
A Case Study of Noncredit to Credit Pathways at Community Colleges

Why are you being asked to be in this research study?

You are being asked to be in this study because you are either a current or former faculty member or administrator at a community college or an employer who has engaged with a community college to create a program. If you are a current or former faculty member or administrator you must have knowledge of both the noncredit and credit programs, how these programs function, and have at least six months of experience at the community college having been engaged with noncredit to credit programs.

What is the reason for doing this research study?

There are many benefits of noncredit to credit pathways (NC-CP) for students. However not enough is known about the perceived obstacles, if any, and how to overcome challenges when creating and implementing NC-CP at community colleges from the perspectives of higher education administrators, faculty, and employers. The purpose of this qualitative case study is to explore the process that stakeholders in two community colleges describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree. The results of this multiple-case study could provide a framework for how institutions can design and implement NC-CP.

What will be done during this research study?

You will be asked to participate in one interview either virtually or in-person that will last approximately 25 to 45 minutes. The interview will occur between September and December 2022.

How will my data be used?

Your data will be used only by me to analyze and synthesize into themes that will then be discussed in my dissertation. It will not be shared by others.

What are the possible risks of being in this research study?

MARCH 2019

IRB NUMBER: IRB2122-242
IRB APPROVAL DATE: January 12, 2023
IRB EXPIRATION DATE:
IRB
Consent Form for Research

There are no known risks to you from being in this research study.

What are the possible benefits to you?

You are not expected to get any benefit from being in this study.

What are the possible benefits to other people?

The benefits to of this multiple-case study could provide a framework for how institutions can design and implement NC-CP. This could attract the attention of students who enter noncredit programs to gain competencies for a job and may not be thinking about career advancement or degree attainment.

What will being in this research study cost you?

There is no cost to you to be in this research study.

Will you be compensated for being in this research study?

There is no compensation for participating in this study.

What should you do if you have a problem during this research study?

Your welfare is the major concern of every member of the research team. If you have a problem as a direct result of being in this study, you should immediately contact one of the people listed at the beginning of this consent form.

How will information about you be protected?

Reasonable steps will be taken to protect your privacy and the confidentiality of your study data. The data will be stored electronically through a secure server and will only be seen by the research team during the study and for 5 years after the study is complete. For in-person interviews, I will request to audio record through Otter AI. "Otter uses AWS S3 storage and enables AWS SSE (Server Side Encryption) on data" and it also encrypts the data (Lai, 2022). For the Zoom interviews, I will keep the recordings in a private file that is digitally encrypted and only I will have access to the file. These files will be deleted after 5 years. I will download the Otter transcripts and keep them as secure as the audio recordings and will delete the recordings from Otter.

The only persons who will have access to your research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific conferences.
meetings but the data will be reported as group or summarized data and your identity will be kept strictly confidential.

What are your rights as a research subject?

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigator(s) listed at the beginning of this form.

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB) or Vice President for Research and Economic Development:

- IRB: (401) 874-4328 / researchintegrity@etal.uri.edu.
- Vice President for Research and Economic Development: at (401) 874-4576

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with the University of Rhode Island (list others as applicable).

You will not lose any benefits to which you are entitled.

Documentation of informed consent

You are voluntarily making a decision whether or not to be in this research study. Signing this form means that (1) you have read and understood this consent form, (2) you have had the consent form explained to you, (3) you have had your questions answered and (4) you have decided to be in the research study. You will be given a copy of this consent form to keep.

Participant Name:

_________________________________________  (Name of Participant: Please print)

Participant Signature:

_________________________________________  ___________________________

MARCH 2019
IRB Consent Form for Research

Kathy Peno, Ph.D.
School of Education
Page 5 of 6
A Case Study of Noncredit to Credit Pathways at Community Colleges

Signature of Research Participant

Date

MARCH 2019

IRB NUMBER: IRB2122-242
IRB APPROVAL DATE: January 13, 2023
IRB EXPIRATION DATE:
AUDIO/VIDEO ADDENDUM TO THE CONSENT FORM FOR RESEARCH

By signing this consent form, I confirm that I give my permission for audio and/or video recording(s) of me, to be used for the purposes listed above, and to be retained for five years. You may still participate in this study if you are not willing to be recorded.

__________________________________________
Printed Name of Participant

__________________________________________
Signature of Participant

Date

__________________________________________
Printed Name of Person Obtaining Consent

__________________________________________
Signature of Person Obtaining Consent

Date
Appendix C

Recruitment Emails

Faculty/Staff Participant Recruitment Email

Dear __________, 

My name is Amy Grzybowski and I am a Doctoral Candidate at University of Rhode Island/Rhode Island College joint Ph.D. in Education program. I am collecting data through interviews for my dissertation study currently titled “A case study of noncredit to credit programs at community colleges.” This research has been approved by the University of Rhode Island Institutional Review Board (IRB). The Principal Investigator is Kathy Peno, Ph.D. (401-523-1477; ktpeno@gmail.com). As the student investigator my contact information is 401-479-1120 or agrzybowski@uri.edu should you have any additional questions.

Through this study, I hope to explore the process that stakeholders in two community colleges describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree.

Would you be interested in participating in one virtual or in-person interview to discuss noncredit to credit pathways at your institution? I anticipate the interview to last between 25 and 45 minutes. The interview will take place between September and February 2023. As a way to enhance my findings, I also will ask you to review the themes that have emerged from my research, however you do not need to provide any feedback and still participate in the study. Prior to participating in the interview, you will be asked to read and complete a consent document.

I am specifically looking for participants who:

- are employed or previously employed by the institution or system as either an administrator or a faculty member;
- have knowledge of both noncredit and credit programs;
- have knowledge of the noncredit and credit functions of the college;
- have at least six months of experience in the institution or system and have been involved in a NC-CP discussion to ensure they have been able to formulate perceptions and experience with either noncredit or credit programming.

My study offers no direct benefits to participants. If you are willing to participate in the study please let me know and can find a time that works with your schedule.
Thank you for considering this request.

Amy Grzybowski
Dear ________,

My name is Amy Grzybowski and I am a Doctoral Candidate at University of Rhode Island/Rhode Island College joint Ph.D. in Education program. I am collecting data through interviews for my dissertation study currently title “A case study of noncredit to credit programs at community colleges.” This research has been approved by the University of Rhode Island Institutional Review Board (IRB). The Principal Investigator is Kathy Peno, Ph.D. (401-523-1477; ktpeno@gmail.com). As the student investigator my contact information is 401-479-1120 or agrzybowski@uri.edu should you have any additional questions.

Through this study, I hope to explore the process that stakeholders in two community colleges describe to design and implement clearly articulated pathways for students to move from noncredit to credit programs that will allow them to attain a certificate or degree.

Would you be interested in participating in one virtual or in-person interview to discuss noncredit to credit pathways at your institution? I anticipate the interview to last between 25 and 45 minutes. The interview will take place between September and February 2023. As a way to enhance my findings, I also will ask you to review the themes that have emerged from my research, however you do not need to provide any feedback and still participate in the study. Prior to participating in the interview, you will be asked to read and complete a consent document.

I am specifically looking for participants at employers who have worked with the community college to create a training program.

My study offers no direct benefits to participants. If you are interested in participating in the study please let me know and can find a time that fits your schedule.

Thank you for considering this request.

Amy Grzybowski
## Appendix D

### Interview Questions

<table>
<thead>
<tr>
<th>Questions for Administrators and Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Questions</strong></td>
</tr>
<tr>
<td>How do stakeholders describe the process of designing and implementing non-credit to credit pathways at two community colleges?</td>
</tr>
<tr>
<td><strong>Interview Questions</strong></td>
</tr>
<tr>
<td>- What can you tell me about the process of designing noncredit to credit pathways in your organization?</td>
</tr>
<tr>
<td>- In what ways have you participated in any meetings or conversations relating to noncredit to credit programming at the institution?</td>
</tr>
<tr>
<td>- What can you tell me about those meetings or conversations?</td>
</tr>
<tr>
<td>- What can you tell me about the process of implementing noncredit to credit pathways in your organization?</td>
</tr>
<tr>
<td>- Do you think this is different depending on the career pathway? Why?</td>
</tr>
<tr>
<td>- How does management play a role in noncredit to credit pathways?</td>
</tr>
<tr>
<td>- If you were to offer advice to people at other campuses, what would you suggest are your biggest pieces of advice for successfully designing and implementing non-credit to credit pathways at two community colleges?</td>
</tr>
</tbody>
</table>
| How do stakeholders at each community college describe the obstacles in the design and implementation of non-credit to credit pathways? | - What obstacles did you encounter designing and implementing noncredit to credit programs?  
- If there are not (any successful programs), or only one or two, why do you think there are not more opportunities for students? |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>How, if at all, do stakeholders perceive that their community college overcame obstacles in the design and implementation of non-credit to credit pathways?</td>
<td>- With these successful programs or even other examples of attempts to design and implement noncredit to credit pathways, how did the you and the college overcome any obstacles?</td>
</tr>
</tbody>
</table>
| How do stakeholders at each community college describe the factors that facilitate the design and implementation of non-credit to credit pathways? | - Can you tell me about any successful programs at the institution that currently allow a student to go from a noncredit program to a credit program?  
- What contributed to the successful implementation of these programs?  
- What are some opportunities that exist where existing noncredit programs could transition to credit pathways? How could the institution get started? |
### Questions for Employers

<table>
<thead>
<tr>
<th><strong>Research Questions</strong></th>
<th><strong>Interview Questions</strong></th>
</tr>
</thead>
</table>
| How do stakeholders describe the process of designing and implementing non-credit to credit pathways at two community colleges? | - Have you engaged with the community college to create programs specifically for your industry? What was the intended program and hopeful outcome for your organization?  
   - What discussions occurred about whether these programs would result in credit for the participants enrolling in these employer-driven trainings and does it matter to you as an employer?  
   - What was your role as an employer in this process?  
   - How long did it take you to create your program and was the length of time dictated by you as the employer or the community college? |
| How do stakeholders at each community college describe the obstacles in the design and implementation of non-credit to credit pathways? | - From your perspective, what were the obstacles you encountered in the design of your program? |
| How, if at all, do stakeholders perceive that their community college overcame obstacles in the design and implementation of non-credit to credit pathways? | - What were the obstacles you observed the community college overcome during this process? |
| How do stakeholders at each community college describe the factors that facilitate the design and implementation of non-credit to credit pathways? | - How were these obstacles overcome? |
### Appendix E

Issues of Trustworthiness in a Qualitative Study

<table>
<thead>
<tr>
<th></th>
<th>Credibility</th>
<th>Transferability/Generalizability</th>
<th>Dependability</th>
<th>Confirmability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Checking</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Debriefing</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Triangulation</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Thick description of the participants and context</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Prolonged Engagement</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistent Observation</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purposive Sampling</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependability Audit</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(documentation, reflexive journal, and field notes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmability Audit</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

(adapted from Ekladsson et. al, 1993)

The researcher will utilize the methods above to address issues of trustworthiness in this study as described in the data analysis and limitations sections of the proposal.
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https://doi.org/10.1177/1468794112468475


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