

THE IMPACT OF CAREER AND TECHNICAL EDUCATION PROGRAM
OUTCOMES IN THE WINDHAM SCHOOL DISTRICT ON OFFENDER POST-
RELEASE EMPLOYMENT STATUS

A Dissertation

Presented to

The Faculty of the Department of Developmental Education Administration

Educational Leadership

Sam Houston State University

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

by

Amy K. Lopez

August 2020

THE IMPACT OF CAREER AND TECHNICAL EDUCATION PROGRAM
OUTCOMES IN THE WINDHAM SCHOOL DISTRICT ON OFFENDER POST-
RELEASE EMPLOYMENT STATUS

by

Amy K. Lopez

APPROVED:

Matthew Fuller, PhD
Committee Director

Patrick Saxon, PhD
Committee Member

Forrest Lane, PhD
Committee Member

Stacey Edmonson, EdD
Dean, College of Education

DEDICATION

I dedicate this work, first of all, to my Dad, Bert Grimes, who was my life-long example of a compassionate and dedicated educator. For the hours I spent playing in the university stacks as a child while he was in graduate school, I am thankful. Hanging out in libraries and doing research has never been foreign to me because of that time. He would have loved the work in which I am currently engaged, and I feel his presence and influence every day. Thanks Pops!

Equally, I have to dedicate this work to my children, Ann Marie and Matthew, who have lived through all the papers, studies, and graduation ceremonies it's taken to get here. In keeping with family tradition, they also attended graduate classes and hung out in school settings as children while I plugged away.

Lastly, to my students (past, present, and future) who will hopefully benefit from this and future research, I dedicate this work. To all of the incarcerated men and women who see education attainment as a ticket out of carceral spaces, my sincerest hope is that we work together in this country to find a better way to help those in need.

ABSTRACT

Lopez, Amy K., *The impact of career and technical education program outcomes in the Windham School District on offender post-release employment status*. Doctor of Education (Developmental Education Administration), August 2020, Sam Houston State University, Huntsville, Texas.

The primary purpose of this study was to explore any relationship between pre-release Career and Technical Education (CTE) course participation outcomes and post-release employment status. The target population of this study was defined as offenders who were released from the custody of the Texas Department of Criminal Justice on supervision for whom employment status data was reported and who participated in a Windham School District (WSD) CTE course and for whom post-release employment data was available for school years 2011-2013. A non-experimental, factorial design (Chi-square test for independence) was employed to explore the relationship between independent variables (WSD students who completed a CTE course and earned an industry certification, WSD students who completed a CTE course but did not earn certification, and WSD students who participated in CTE but neither completed a course nor earned certification) and a dependent variable of post-release employment status (employed and retained, employed but not retained, full-time student, unemployed, and never employed). The relationship between each independent variable and the dependent variable reached statistical significance. Further examination of the identified CTE participation outcomes and employment status (employed or unemployed) indicated that the increased odds of participants in each CTE participation outcome being employed in the first 12 months of release also reached statistical significance.

KEY WORDS: Correctional career and technical education, Recidivism, Post-release employment

ACKNOWLEDGEMENTS

I would like to thank Dr. Fuller for his patience, my cohort colleagues for being my never-ending support, and the many mentors and role models throughout my life and academic career who have motivated and spurred me onward.

Throughout the literature review of this project is the name John Linton. John was an expert on the subject of correctional CTE and a good friend. He played an instrumental role in a significant career move for me which in many ways changed my life, and I was never in John's presence without learning more about my craft or more about being a good person. John's life was cut short during the last year of my studies, and as I read this paper, I'm reminded of how much I owe and miss him.

My mom, my sister, my niece and nephews, my friends, my colleagues, my students...thank you for listening to my incessant conversations about this work and the multitude of whining about why I started it in the first place. I love you for it.

PREFACE

Identifying an observable association between specific correctional CTE program characteristics and post-release employment status for formerly incarcerated individuals could offer guidance to correctional educators and criminal justice agencies in examining current programming and planning further implementation of CTE programs. It could also be the impetus to suggest further exploration for researchers. This study explores data available from the Windham School District, then discusses the results of the study and possible implications of findings in order to suggest future topics for researchers and policy recommendations for practitioners.

TABLE OF CONTENTS

	Page
DEDICATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENTS	v
PREFACE	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	ix
CHAPTER I: INTRODUCTION	1
Background of the Problem	4
Statement of the Problem	10
Purpose of the Study	11
Research Questions	11
Significance of the Study	12
CHAPTER II: LITERATURE REVIEW	15
Exploring the Landscape of Correctional Education	16
Examining the Importance of Post-Release Employment Attainment	53
Understanding Post-Release Challenges That Face Returning Citizens	65
Reviewing Studies Regarding Correctional Education and Recidivism	79
Theoretical Framework	85
CHAPTER III: RESEARCH METHODOLOGY	91
Research Questions	91
Statistical Assumptions	92

Population and Sample.....	92
Data Sources.....	95
Data Analysis Plan.....	95
Procedures.....	96
Assumptions, Limitations, and Delimitations of the Research.....	97
Definitions of Terms.....	98
CHAPTER IV: RESULTS.....	101
Population and Sample Characteristics.....	101
Findings.....	103
Summary of Results.....	112
Conclusion of Results.....	113
CHAPTER V: Discussion, Implications, and Recommendations.....	114
Discussion.....	114
Implications.....	122
Recommendations for Future Research.....	127
Policy Recommendations.....	135
Conclusion.....	141
REFERENCES	143
VITA.....	165

LIST OF TABLES

Table	Page
1 CTE Certification Program Survey.....	48
2 TDCJ Population Data 2011-2013.....	92
3 WSD Student Information for School Years 2011/2012 and 2012/2013.....	93
4 Industry Certifications and Employment Status.....	104
5 CTE Course Completion (VCERT) and Employment Status.....	105
6 CTE Course Participation (VPART) and Employment Status.....	106
7 Summary of Percentage of CTE Participation Outcomes and Employment Status.....	108
8 Summary of Percentage of CTE Participation Outcomes.....	108
9 Z Scores and Chi Squared Coefficients for CTE Participation Outcome and Post- Release Employment Data.....	109
10 Odds Ratio for CTE Participation Outcomes and Employment Status.....	111

CHAPTER I

Introduction

There are few examples in history that can rival the current rate at which the U.S. incarcerates its citizens. As a nation, the incarceration rate in the U.S. is higher than any other country in the world and has increased by 500% over the past 40 years (Karpowitz, 2017, p. 1). In the early 1970's, the U.S. incarcerated approximately 300,000 individuals in its state and federal institutions; today, that number is closer to 2.3 million with an additional six million Americans on probation or parole (Mauer, 2011; Office of Justice Programs, 2015; Stevenson, 2015). With approximately 5% of the world's population, the U.S. represents approximately 25% of all imprisoned individuals (Bauer, 2019, p.5), leading to what is now termed the age of mass incarceration (Alexander, 2012; Karpowitz, 2017).

Perhaps the most glaring marker of this trend of ever-increasing incarceration is the rate at which the U.S. arrests and incarcerates people of color. In Washington, D.C., three of every four black men can expect to be incarcerated, with similar rates represented in communities across the U.S. (Alexander, 2012). The discriminations facing returning citizens of color are of a similar nature to the Jim Crow laws we supposedly left behind in our battle for Civil Rights (Alexander, 2012). In the year that *Brown v. Board of Education* was decided, 1954, there were 100,000 people of color incarcerated in U.S. jails and prisons. In 2011, there were approximately 900,000 (Mauer, 2011, p. 88S). Hispanic and African American people comprise 32% of the U.S. population and 56% of the incarcerated population (NAACP, 2019, para.2). Currently, the U.S. incarcerates a higher percentage of its Black population than South Africa's

period of Apartheid (Alexander, 2012). One in three Black men in the U.S. will spend some time in confinement during their lifetime (Karpowitz, 2017, p. 2). Compared to their White counterparts, African American children are six times more likely to be incarcerated (Karpowitz, 2017, p. 2). Even though Black and Hispanic people are disproportionately represented in our correctional institutions, mass incarceration impacts all racial groups, with poor people of all skin color and ethnic backgrounds being the most represented (Karpowitz, 2017).

Ninety five percent of all incarcerated Americans return home (Brazzell, Crayton, Mukamal, Solomon, & Lindahl, 2009, p. 1). Individuals with a felony record face issues upon release that make remaining free from reassociation with the criminal justice system difficult, including discrimination in attaining housing, postsecondary education enrollment, and employment. Formerly incarcerated Americans facing these post-release barriers have been described as "members of America's new undercaste" (Alexander, 2012, p. 13). With more than two million adults incarcerated in the United States (Office of Justice Programs, 2015), the ability of correctional institutions to appropriately prepare offenders to reenter society is paramount. Research acknowledges that under-educated offenders, which make up a disproportionate number of the incarcerated population, lack appropriate skills to obtain and sustain viable employment, which in turn are key factors to reducing recidivism (e.g., Duwe & Clark, 2014). Finding employment has been identified as the number one priority for returning citizens (Nelson, Deess, and Allen, 2011). Newly released individuals followed for the first month of release were noted as being far more preoccupied with attaining a job than anything else (Nelson et al., 2011). This preoccupation is due, in part, to the fact that employment is usually a requirement

for parolees. If a former offender wants to avoid returning to the system, then getting a job is paramount. Being employed, paying bills, supporting a family, and having purpose every day contributes to a feeling of self-worth and normalcy for former offenders (Alexander, 2012).

Adding to the post-release problems in finding employment is a marked lack of education. The percentage of inmates and ex-offenders who are high school dropouts has been estimated to be as high as 70 (Alexander, 2012, p. 150). California statistics cite 50% of that state's parolees were functionally illiterate (Travis, Solomon, and Waul, 2001, p. 12). Some studies indicate that 36% of offenders housed in state prisons across the U.S. do not have a high school credential, although the average for the general population across the nation for individuals 16 years of age or older is 19% (Davis et al., 2013, p. xv). Not only do inmates lack an academic diploma or equivalent, they also often do not have adequate skills to join the workforce and few have a credible work history. Incarcerated individuals have lower literacy and numeracy skills than the general population. In one study, 42% of incarcerated men and women completed some form of educational attainment during their confinement, and 80% wanted to participate in correctional education programming to increase the likelihood of sustainable employment upon release (Rampey, Keiper, Mohadjer, Krenzke, Li, Thornton, and Hogan, 2016, p. 35). In his program effectiveness evaluation report on the Windham School District (WSD), Wang (2017) stated "we believe that job successes (e.g., getting and keeping a job, earning a living wage) are the best measures of successful reentry and reintegration" (p. 1).

The purpose of this study was to research the impact of correctional education participation on post-release employment outcomes. Specifically focusing on Career and Technical Education (CTE) participation and post-release employment status, the information garnered from this study may serve to assist correctional institutions and their educational partners in implementing programming and improving recidivism rates. The first chapter presents the purpose and background of the study, identifies the problem, and concludes by describing the significance of the study.

Background of the Problem

In 1974, Robert Martinson published an article that was the first of its kind, examining the effectiveness of prison programming on inmate reformation and recidivism. Following on the heels of a decade that had seen astonishing punitive practices and resulting riots, strikes, and prison violence, there was very little available in the manner of results of rehabilitative efforts of correctional agencies, despite a sizable amount of research on reform efforts (Martinson, 1974). A meta-analysis was conducted as an attempt to answer the question, "What works?" The conclusion was that nothing works, and this article, with its bleak outlook, spurred further research which in turn spurred greater efforts to find and/or create programs that work (e.g., Davis et al., 2013; Ellison, Szifris, Horan, & Fox, 2017). There is still debate, however, as to whether or not rehabilitative programming is effective (Gerber & Fritsch, 1995). Additional research of available studies indicated no definitive evidence that pre-release educational programs had any impact on post-release employment outcomes or recidivism.

The Rand Corporation's Correctional Education Project, spurred by the Bureau of Justice Statistics and the Second Chance Act of 2007, issued a report stating that the ever-

revolving door of reincarceration was in part due to the lack of academic and career-ready skills of citizens housed in U.S. prisons (Davis et al., 2013). The meta-analysis further indicated that participation in correctional education appeared to lower an inmate's odds of recidivating. As the U.S. economy continues to grow, there is rising demand for a workforce trained in science, technology, engineering, and mathematics (STEM) areas; however, there is a skills gap across the U.S. in the number of middle-skill STEM jobs (e.g., at least a high school credential but less than a four-year degree) and the number of skilled workers who can fill them (National Skills, 2015). The U.S. Department of Education's Secretary of Education Margaret Spellings explained:

in tomorrow's world a nation's wealth will derive from its capacity to educate, attract, and retain citizens who are able to work smarter and learn faster—making educational achievement ever more important both for individuals and for society writ large. (U.S. Department of Education, 2006, p. xii)

Middle skill STEM jobs are a viable target for post-release employment opportunities, providing a springboard for correctional agencies in choice of training programs.

Approximately 80 billion state dollars are spent annually on prisons, often exceeding higher education budgets (Karpowitz, 2017, p. 1). There is an ever-increasing need for postsecondary education in U.S. prisons in order to prepare a qualified workforce, and yet there are indications that education for inmates is most often at the bottom of the list of priorities for prison officials (O'Neil, 1990). Arguably, the provision of pre and post-release postsecondary education could be more consistently prioritized, not only for the sake of inmate welfare, but also in light of the current economic outlook in the U.S. Economists predict that the labor market in the U.S. will continue to tighten,

the numbers of unskilled workers will climb, and the requirement of postsecondary degrees for available jobs will grow. A postsecondary degree or middle-skill training are required by 90% of the fastest growing careers in the U.S. (Brazzell et al., 2009, p. 8).

Implemented correctly and uniformly, CTE and vocational training, along with postsecondary and academic instruction and cognitive programs, will increase each individual's opportunity for post-release success (Davis et al., 2013; Karpowitz, 2017). CTE courses generally require less time to complete than literacy or postsecondary programs, offering students a more immediate result in preparing for post-release employment and are viable solutions for training offenders who are to be imminently released and may not have time to complete an academic course of study (Crayton & Lindahl, 2015). For individuals with a criminal history, particularly a felony, securing a job is difficult. Many industries and employers require applicants to disclose any felonious charges on the application, and once disclosed, that criminal record keeps many returning citizens from being eligible for an interview. Fields that are most promising for and most accommodating of persons with a criminal history are construction and manufacturing, but unskilled and uneducated returning citizens must compete for these jobs with citizens who have the opportunity for training and do not have a criminal history (Alexander, 2012). CTE training during confinement may level the playing field a bit. Of the more than two million adults incarcerated in the United States, approximately 700,000 of them return to their communities each year (Ositelu, 2019, p. 11). The ability of correctional institutions to appropriately prepare offenders to reenter society could be prioritized in order to improve post-release outcomes.

In this study, reviewed data will be gathered from correctional education programs provided by the Windham School District (WSD). The WSD was proposed to the Texas Board of Corrections by George Beto in 1969. Beto possessed a doctorate in educational administration and was the director of the Texas prison system in 1969. He presented the first of its kind idea to create a statewide geographical educational system that would solely serve incarcerated adults. The uniqueness of the proposal lay in the fact that the new agency/school district would stand alone and not be under the jurisdiction of the criminal justice organizational system but would instead act as its partner. In addition to hierarchal autonomy, the district would receive funding from the Texas Education Agency, not the correctional budget, protecting it from competition with security staffing and facility issues. Other aspects of this singular institution in an era of male-dominated, tough-on-crime carceral practices, Beto's proposed organizational structure provided for hiring only certified teachers, and he appointed a woman as the district's first superintendent (Shlacter, 1997). Named for James M. Windham, long-serving member of the Texas Board of Corrections, the inaugural year of the WSD, 1969, began with eight staff members and now employs over 1,000 instructors, administrators, and support staff, serving over 63,000 inmates incarcerated with the Texas Department of Criminal Justice (TDCJ) annually (Windham School District, 2018).

Admission process. TDCJ inmates are individuals who have been sentenced to serve their appointed time in confinement of TDCJ-operated state prisons and jails and Substance Abuse Felony Punishment institutions. WSD students are TDCJ inmates. WSD offers a free and appropriate education to all eligible students. For individuals under the age of 22 who have been diagnosed with an eligible disability and who qualify to receive

special education services, the school district provides a high school diploma program as determined by local, state, and federal mandate (Windham School District, 2018, April 20). WSD staff create an Individualized Treatment Plan (ITP) for each inmate who expresses an interest in educational enrollment. The ITP prioritizes inmate participation based on several criteria, including the inmate's age, program availability and capacity, the inmate's projected release date, and the determination of need for the program in which the inmate wishes to enroll (Texas Department of Criminal Justice, 2017). Inmates under the age of 22 with the lowest levels of educational achievement are the WSD's highest priority when placing inmates in academic courses. All inmates are administered the Test of Adult Basic Education at intake so that the WSD has educational functioning levels on-hand when drafting each ITP (Windham School District, 2018, April 20).

A student ITP is based on priority codes. For academic courses, the highest points are awarded to inmates under the age of 22, followed by those who fall in the aged 22 to 34 range, and lastly, inmates from age 35 to 59 receive the least number of points. Students who do not have a high school diploma or its equivalency are a higher priority than those who do. CTE enrollment is prioritized not only by age, but also by need, with inmates who have no prior vocational trade receiving the most points, followed by those who have one prior trade, and the least number of points is awarded to interested inmates who have two or more previous trades (Windham School District, 2018, April 20).

For students interested in CTE courses and programs, additional testing is conducted to identify skill and aptitude, with WSD staff encouraging each student to choose realistic career path, considering their skill level, length of stay, and labor market outlook in the geographical area where they will reside upon release. Offering a wide

variety of vocational training and CTE courses across the state, WSD bases all CTE offerings on (a) labor market demand for high-skill, high-wage occupations; (b) ability of ex-offenders to secure certification, licensure and employment; (c) an authentic, technological work-related environment; (d) a rigorous curriculum that meets industry standards (performance specifications dictated by industry that identify the knowledge, skills and competencies an individual must possess to succeed in the workplace); (e) teachers who are also industry-certified and knowledgeable of current industry practices; and, (f) opportunity to earn a WSD certificate of completion with an option to earn an industry recognized occupational certificate or license (Windham School District, 2012). Limited by funding, space, and availability of certified staff, not every unit offers every CTE course. Vocational training opportunities are in high demand, and the WSD utilizes a waiting list process to maintain full capacity and serve as many inmates as possible. If a CTE pathway is not available at a facility, an inmate can request a transfer to one in which the desired course work is offered (Windham School District, 2018, April 20).

The first of its kind in the U.S., other states have since followed the WSD model, but it remains the exception and not the rule. Correctional education continues to be an after-thought in many states. In addition to the practice of placing education for inmates under the rule of correctional administrators and not educators, the U.S. financial recession of 2008, which forced many states to decrease the number of educational programs they offered in criminal justice facilities across the country, has further reduced the prioritization of correctional education offerings. For facilities that maintained programming during the recession, many were forced to cut the number of inmate participants due to the lack of resources (Davis et al., 2013). Across the U.S., 84% of

states offer correctional education programs of some kind, with only 50% of those offering CTE opportunities (Davis et al., 2013, p. 4). A lack of education and inadequate work-ready skills are key factors in a returning citizen's ability to successfully attain employment and become a productive community member (Reed, 2015).

Statement of the Problem

On average, 700,000 offenders are released from prisons in the United States annually (Ositelu, 2019) and an additional 12 million are released from local jails (Solomon, 2009). Approximately 68% of individuals released from state and federal prisons are rearrested within three years, 79% are rearrested within 6 years, and within 9 years, 83% have committed offenses for which they are arrested (Alper, Durose, & Markman, 2018, p. 1). Of all demographic measurements for the criminal justice system, the rate of recidivism represents the fastest category of prison growth (Stasio, 2010). Frequently, inmates have an extensive and successful work history; unfortunately, it was achieved in doing prison work, and many employers will discount the experience as viable employment and/or will overlook an individual based on biases or assumptions associated with someone who has a criminal history (Cherney & Fitzgerald, 2014). The lack of an appropriate social network to overcome the challenges they will face in searching for and attaining employment once they are released is an additional barrier for former offenders (Cherney & Fitzgerald, 2014). Lack of skills and the inability to obtain and sustain gainful employment are key factors contributing to the high percentage of individuals who find their way back into the prison system (e.g., Davis et al., 2013).

Purpose of the Study

In 2013, The RAND Corporation (Davis et al., 2013) conducted a meta-analysis to explore the question of whether or not correctional education positively reduced recidivism. The report also examined the impact of correctional education on post-release employment. The results were encouraging but not entirely conclusive, given that of the 19 studies evaluated, only one was found to have employed rigorous methodology. There is a need for continuing research to fully understand any positive relationship between correctional education and post-release employment outcomes (e.g., Bozick, Steele, Davis, & Turner, 2018; Ositelu, 2019). The purpose of this study is to examine the relationship between participation outcomes of students enrolled in WSD CTE programs and employment status for these students released on supervision. The insights gained by such an exploration may provide opportunities for correctional educators and criminal justice organizations in implementing or enhancing program offerings to inmates and thus reducing the rate of recidivism. Examining the relationship between pre-release CTE training and post-release employment outcomes contributes to expanding the knowledge of such reform efforts, provides educators with insights regarding the effectiveness of specific programming, and encourages correctional institutions to prioritize educational opportunities to those individuals in their custody.

Research Questions

In light of research that shows a potential linkage between educational achievement during incarceration and improved post-release employment outcomes, this study explored the following questions regarding WSD students:

1. What relationship, if any, is there between offenders earning an industry certification in CTE courses during incarceration and post-release employment status?

2. What relationship, if any, is there between offenders who complete a CTE course but do not earn certification during incarceration and post-release employment status?

3. What relationship, if any, is there between offenders who participate in a CTE course during incarceration but neither complete the course nor earn certification and post-release employment status?

A greater understanding of the impact of pre-release CTE participation on the post-release employment status of returning citizens could assist correctional educators and agencies in promoting improved outcomes for returning citizens. It could also offer insight into any need to revise current programming.

Significance of the Study

Missing in current research is a theoretical explanation of the relationship between correctional CTE programming and post-release behaviors leading to recidivism (Wilson, Gallagher, & MacKenzie, 2000), as well as a dearth of information reporting the relationship between the ability to attain and sustain gainful employment upon release and earning industry certifications from a correctional education program (Davis et al., 2013). What does this research mean in terms of societal costs? The yearly expense of state and federal prisons rose from \$9 billion to \$52 billion over two decades (Fehr, 2009, p. 8). One study estimated that an investment in correctional education as small as \$1,149 saved more than \$5,800 in taxes that would have been spent on crime-prevention (Pompoco, Wooldredge, Lugo, Sullivan, and Latessa, 2017, p. 516).

Mass incarceration does not solely affect the lives of the incarcerated and the pocketbook of taxpayers, it also deeply affects their nuclear and extended families, their social networks, their children, and the community to which they will ultimately return (Hagan & Burch, 2010). The collateral consequences of the massive numbers of incarcerated individuals include a negative toll on American families. Some study results indicated more than 2.4 million children in the U.S. have at least one parent who currently is or has been incarcerated (Solomon, 2009, p. 2).

This study is significant because the data and findings contribute to the limited research currently existing regarding the role of CTE programming and the impact of attaining industry certification on post-release employment for returning citizens. The study of the relationship between pre-release CTE course completion, industry certification attainment, and the ability of a former offender to attain employment could help correctional educators and program administrators to explore ways in which they can implement or increase programming. In addition, these findings may provide insights that spur further research in the impact of correctional education on reducing recidivism.

The purpose of this study is to investigate whether a relationship exists between three CTE student outcomes for incarcerated individuals and their employment status once released on supervision from TDCJ custody. Gaining an understanding of the need for improved in-prison CTE programming and post-release access to education and job-training opportunities could improve the odds of post-release employment for offenders (Davis, et al., 2013). Chapter 1 has presented background necessary to understand the stated problem and its significance. Also presented in Chapter 1 were the research

questions that will be the foundation of the study's direction and the stated purpose of the study.

Chapter 2 will offer a review of pertinent literature and existing research on the impact of correctional CTE programming on post-release employment status and related themes, as well as the theoretical framework on which the study was based. Chapter 3 will present a description of the research design, participant population, and methodology for data collection and analysis, the results of which will be discussed in Chapter 4. Also in Chapter 3 will be a discussion of the assumptions, limitations, and delimitations associated with the research project. Chapter 5 will summarize the study's findings and suggest possible further research. This study is intended to explore the impact of correctional CTE program outcomes on an individual's ability to successfully attain employment once released to the community and may serve to provide correctional institutions and their educational partners information in implementing programming and reducing recidivism rates.

CHAPTER II

Literature Review

With the staggering number of persons incarcerated and subsequently released each year, U.S. correctional institutions have developed a position of support for educational programming that will equip its clientele with adequate work force skills as they transition back to their communities. The considerations of school failure and poor educational attainment among incarcerated adults have resulted in the creation and utilization of correctional education programs such as adult basic education, high school equivalency test preparation, CTE, and postsecondary correctional education (Reed, 2015). The move from the *tough on crime, lock 'em up* paradigm of the past to a focus on rehabilitative programming has shifted back and forth for decades, with current efforts to reduce the number of individuals who are released after long periods of confinement and who speedily return to the criminal justice system leaning toward rehabilitation (Davis et al., 2013). Do these programs make a difference in post-release success or recidivism rates? There is a dearth of rigorous research on this subject, but there is enough to suggest that the discussion should cease to be about whether correctional education is effective but rather on "where the gaps in our knowledge are and opportunities to move the field forward" (Davis, Bozick, Williams, Turner, Miles, J., & Steinberg, 2014, p. iv). Generally, researchers and practitioners believe that participating in correctional education benefits incarcerated students, but what specifically works?

A review of existing literature and research provided a general understanding of the current and historical status of correctional education and its role in preparing incarcerated students for reentry by exploring the current and historical landscape of

correctional education, examining the importance of post-release employment attainment, understanding post-release challenges that face returning citizens, and providing a theoretical framework on which the proposed study was based.

Exploring the Landscape of Correctional Education

Correctional education has been defined as including adult basic education (e.g., literacy and numeracy instruction and English as a Second Language), adult secondary education (e.g., high school equivalency preparation), postsecondary correctional education (e.g., credit-bearing and non-credit-bearing course work), and CTE (e.g., vocational training and career preparation) (Davis et al., 2013). In an age of mass incarceration, a criminal justice system should not take the term correctional education literally, viewing education as one of its many strategies to build character and modify behavior. Offering educational opportunities to individuals with this view leaves education in prisons as a correctional function and less of an educational one (Karpowitz, 2017).

Historical landscape. Congress passed Title IV of the Higher Education Act in 1965, permitting incarcerated individuals to apply for Pell Grants, granting eligible students the ability to pay for a college education. It was generally acknowledged that offering people the opportunity to gain an education and new skills during incarceration would increase public safety and save taxpayers money (Hrabowski & Robbi, 2002). In the 1970's, there was a concerted movement in the U.S. to establish postsecondary opportunities for incarcerated populations. With the recession in the 1980's, however, the general public suffered from the elimination or freezing of many federal funding programs and escalating tuition fees. The war on drugs during this era resulted in high

numbers of incarcerations, and even though the postsecondary programs in correctional institutions were proving to be successful, a beleaguered public was not receptive to the perceived benefits for criminals that were economically restrictive for themselves (Batiuk, 1997). Over the next two decades, a push towards harsher and more punitive responses to criminal behavior and a decrease in funding contributed to the elimination or decrease of educational programs in jails and prisons.

In 1992, a review of the utilization of Pell monies for offenders with the opinion that funding should be ceased was launched by Jesse Helms, a Senator from North Carolina. It was successfully thwarted by the Correctional Education Association (CEA) and Senator Claiborn Pell, the creator of the initial bill that allocated federal monies for use by incarcerated students and who provided evidence that the amount of funds accessed by offenders was less than one percent and resulted in postsecondary programming that had successfully reduced recidivism. Connected with the 1992 Higher Education Act Reauthorization, the decision to retain a portion of the funding for incarcerated students was short lived. In 1993, the Senate and House passed the Violent Crime Control and Law Enforcement Act, which eliminated access to the Pell grant for offenders. President Bill Clinton, who had previously supported higher education for offenders but wanted to be seen as tough on crime, signed the bill; thus began a rapid decline in educational offerings in jails and prisons across the country, particularly those provided by colleges and universities. The Crime Control Act of 1994 subsidized the building of prisons to the tune of billions of federal dollars while simultaneously revoking eligibility for Pell grants to anyone housed in them. Wardens across the country testified in favor of keeping postsecondary education alive in institutions, claiming that

these programs were among the most successful interventions available to the correctional community, to no avail (Karpowitz, 2017).

State universities were forced to withdraw from offering classes to incarcerated students due to economic impracticality (Batiuk, 1997). For example, in the year following the statutory exclusion of inmates from Pell monies, Ohio saw a reduction of 1,302 higher education students in their correctional institutions, as well as a decrease in awarded certificates and degrees. In an effort to reinstate some semblance of postsecondary opportunities, in 1996 the Ohio Penal Education Consortium released a report comparing recidivism rates and postsecondary participation in correctional education to advocate for continuing the provision of higher education opportunities to offenders in Ohio to the Penal Education Study Committee. The results included the continuance of postsecondary offerings to offenders, funding sources other than the Pell grant, the utilization of distance learning for course delivery, and positive working relationships between correctional and higher education entities (Batiuk, 1997). In most states, there was very little resistance to the *tough on crime* legislation that resulted in the vitiation of funding for correctional education. One study's results indicated that the harsh reaction leading to the elimination of the Pell Grant for prisoners was erroneously based on the assumption that inmates were taking federal assistance dollars away from law-abiding citizens (Erisman and Contardo, 2005).

Incarcerated individuals then became eligible for financial assistance such as the Pell Grant only upon release. An amendment to the 1965 Higher Education Act passed in 1998 prohibiting financial aid to individuals with a drug conviction could have been devastating to this potential student population. However, due to the diligent work of

advocate groups, students only lost the financial assistance if they were receiving it at the time of their conviction and could be eligible to regain this assistance post-release by fulfilling specific requirements. For example, students who had a felony drug conviction might qualify by completing an approved substance use treatment program or agree to random drug testing (Jobs for Felons Hub, 2019). These same advocacy groups continued to demand the repeal of the Aid Elimination Provision, arguing that drug convictions routinely target people of color and those who live in poverty, creating a disparity in who had access to higher education (Escobar, Lohrasbi, & Jordan, 2015; Linton, 2011). The inclusion of the question regarding drug convictions on the Free Application for Federal Student Aid was also cited as a deterrent for former offenders attempting to apply for aid (Escobar et al., 2015).

A 35.9% drop in postsecondary program offerings at state prisons after legal access to the federal Pell grant was denied to offenders was reported in one study (Messemer, 2003, p. 37). Securing funding was a deciding factor in whether or not these programs were offered. States and institutions that utilized a variety of funding sources were successful in program implementation. Of nine structural characteristic variables examined, only three were notable: (a) states with the highest population were most likely to offer postsecondary programs, (b) the rate of people who held a Bachelor's degree, and (c) the rate of people who held degrees above a Bachelor's (Messemer, 2003). If some states were able to secure funding and provide higher education programs, why did others not? A lack of research after the banning of inmate access to the Pell grant regarding the impact of that legislation on correctional postsecondary programs made a determination difficult. The level at which these programs were being offered in

correctional institutions, how they were being funded, and investigating any variables that impacted postsecondary offerings to offenders was examined (Messemer, 2003).

Some states did find other methods of funding such as support from state and federal grants, public and private organizations, non-profit foundations, higher education institutions, and correctional institutions, and in some cases, an offender or an offender's family paid for their postsecondary participation (Messemer, 2003). The Workplace and Community Transition Training for Incarcerated Individuals grant program (20 U.S.C. § 1151 : US Code - Section 1151) was managed by the U.S. Department of Education Office of Correctional Education. Designed to provide federal funding to correctional education agencies across the U.S., the monies supported postsecondary education for eligible offenders (Linton, 2010). Eligible agencies were required to submit a three-year roadmap detailing how awarded funds would be used to assist and encourage incarcerated men and women under the age of 36 to attain skills in the areas of literacy, life, and employment. The end result was to culminate in the awarding of postsecondary education certificates and degrees. The grant program also provided funding for employment counseling and other related services to begin during the period of incarceration and continue through post-release. A survey conducted by the Institute for Higher Education Policy resulted in a report that stated a high number of postsecondary correctional programs were funded by the Incarcerated Individuals Program, a federal program, and in some states, through state funded programs. There were a number of privately funded programs across the U.S. as well (Linton, 2011). Non-publicly funded opportunities that appeared to have merit were a number of open-source resources that allowed offenders to participate in low or no-cost postsecondary education. Video-based

tutorials such as the Khan Academy and the Massachusetts Institute of Technology's MITOpenCourseware were offered in on and off-line formats, making course work available at no cost to offenders (Linton, 2011).

Alternative funding structures for postsecondary correctional education, specifically the possibility of the use of the Tuition Repayment-Work/Reparation (TR-W/R) program, have also been cited (Taylor, 2005a). The TR-W/R was a legislative proposal modeled after the Pell grant. Based on the premise that offenders attending postsecondary programming while incarcerated would pay for their own education, the TR-W/R program allowed for a portion of the student's repayment to be in the form of credit for qualifying work or community service completed during incarceration. Should there be any remaining debt, it was to be paid in cash or certified community service once the offender was released.

A second report regarding financing postsecondary correctional education post Pell grant proposed three additional alternative avenues of funding (Taylor, 2005b). These proposals included phone-commission rebate programs, for-profit university tax-credit donation programs, and college-level credit programs. Phone-commission rebates as a method of financing postsecondary correctional programs proposed redirecting the General Fund rebates that phone service providers received from offenders' collect calls to pay for inmate tuition costs. The amount of money collected in this manner during 2005 exceeded the federal assistance offenders received prior to the exclusion of the Pell grant by several hundred thousand dollars and was being utilized by a number of states to fund their postsecondary education programs in prisons (Taylor, 2005b). The tax credit donation program allowed up to a \$1,500 tax credit on the tax return of anyone who

donated money toward an offender's postsecondary education, thus encouraging private funding (Taylor, 2005b). A third method of alternative funding proposed the utilization of equivalency programs such as the College-Level Examination Program as a way to offset the cost of providing inmates with postsecondary opportunities (Taylor, 2005b). These three proposals proved to be prohibitive in wide-spread use and success largely because they were idiosyncratically organized and administered (Taylor, 2005a; Taylor, 2005b).

Carl D. Perkins Vocational and Technical Education Act. In 2006, the Carl D. Perkins Vocational and Technical Education Act was reauthorized. The act was intended to "provide an increased focus on the academic achievement of career and technical education students, strengthen the connections between secondary and postsecondary education, and improve state and local accountability" (DelliCarpini, 2010, p. 283). Funding was offered for traditional vocational education programs and to state correctional agencies to support CTE programming.

Second Chance Act. In 2007, the Second Chance Act was passed as a response to the increasing number of men and women being released from prisons, jails, and juvenile facilities. The landmark legislation focused on funding the creation of reentry programs. The uptick in programming swiftly ended with the 2008 recession. States were forced to curtail spending across the board. Funding for correctional agencies was cut drastically. During fiscal year 2010, of the 50 state departments of corrections in the country, 31 imposed funding cuts that totaled \$806 million (Davis et al., 2013, p. 5). In order to meet basic operational costs, states began closing prisons, reducing staff, and eliminating services and programming. Rehabilitation programs and correctional education

experienced significant funding cuts in numerous states, resulting in fewer program opportunities offered and fewer inmates being offered the opportunity to participate. In an effort to meet financial limitations, many institutions desisted in hiring certified instructors and used other methods of instructional delivery (Davis et al., 2013).

Second Chance Pell Grant Pilot Program. In June of 2016, President Obama announced that 12,000 U.S. offenders would receive postsecondary assistance in the form of the Second Chance Pell Grant Pilot Program. The first issuance of Pell monies offered to incarcerated individuals since the 1994 statutory ban, The Second Chance program set aside \$30 million to be made available to inmates in 141 state and federal prisons (Korte, 2016, para. 2). Students could be granted up to \$5,815 with which they could apply for admission to one of 67 eligible two or four-year colleges and universities (Korte, 2016, para.2). The Secretary of Education, Arne Duncan, announced that the decision to move forward with the pilot was made in part to rectify the 1994 decision which was enacted despite the fact that less than one percent of Pell grant monies were expended on incarcerated individuals (Castro, Hunter, Hardison, & Johnson-Ojeda, 2018; Korte, 2016).

Restoring Education and Learning Act. In the 116th Congress (2019-2020), Senators Brian Schatz, Mike Lee, and Richard Durbin introduced the Restoring Education and Learning (REAL) Act. Endorsed by a diverse group of stakeholders, the proposed act amended the 1965 Higher Education Act by eliminating the paragraph that prevented U.S. state and federal inmates from Pell Grant eligibility. If passed, it fully reinstated the Pell Grant for incarcerated students and void the Second Chance Pell Grant pilot program (Restoring, 2019). Decades of punitive practices and penology resulted in

a period of mass incarceration and all-time high recidivism rates. The decline of rehabilitative programming, including postsecondary offerings, contributed to the current state of nearly two thirds of released offenders returning to the criminal justice system within three years (Wheeldon, 1995, p. 95).

Current landscape. The correctional education landscape at the beginning of the 21st century was not as robust as most educators would have liked, but it was experiencing a surge of expansion and positivity compared to the previous 20 years. In one meta-analysis, 44 states reported offering adult basic education, high school equivalency preparation, and CTE, 32 states also offered postsecondary education, and 33 states offered English as a Secondary Language instruction; smaller states reported fewer adult secondary education and postsecondary education courses than larger states (Davis et al., 2013, pp. 59-60). Six in 10 local jails offered some type of educational programming compared to nine in 10 state and federal prisons (Harlow, 2003, p. 4). Even research in the 2000's was not expansive enough to determine the quality of programming or accuracy of reporting data. For instance, some surveyed states included prison job positions as educational programming (Harlow, 2003). Another difficulty faced by correctional institutions in an era of increased awareness of the positive benefits of educational programming for its residents was the fact that most jails and prisons were built to warehouse bodies. Consequently, there was little to no space for robust programming, so even when an institution was committed to increasing educational opportunities, they were often limited by the physical space to do so (Ositelu, 2019).

The idea that America is a country based on the promise of second chances may have played a role in the current prison reform discussion (Rose, 2012). This second

chance promise has been presented as one applying to all citizens, including those whose lives have taken a wrong turn, resulting in periods (either long or short) of incarceration. Legal confinement could be viewed as a second chance to take advantage of pursuing educational opportunities. Incarcerated students may have limited personal power and no control over many of their daily decisions, but they do have time and the use of their mind. The disappearance and reappearance of postsecondary education in carceral spaces (including CTE offerings) across the U.S. has spurred nation-wide discussions around the need for increased literacy and employability skills for incarcerated individuals.

Economically, the U.S. labor market's need of a well-trained workforce was the basis of many correctional education programs. With over 2.3 million Americans incarcerated in state and federal prisons, these institutions were seen as prime locations for college and career readiness training. The labor force now required higher literacy, numeracy, and technology skills. To compete in this modern work force, workers must exhibit exemplary employability soft skills such as a strong work ethic, punctuality, and proficient customer service skills. The gap between available jobs and the number of people adequately trained to take them was widening. Many jobs that once were available to people with little or no education and skills were now automated or outsourced. To complicate matters, where the U.S. spent the mid-twentieth century touting a college culture (e.g., everyone must have a college degree), there were now a large number of Americans with degrees who were unemployed or in a position that did not require a college credential (Rose, 2012). Literacy, CTE, and job training have been argued as programs that must be augmented with national policies around improved workforce creation in order to offer optimal second chances for returning citizens (Rose, 2012).

Attaining a postsecondary degree, earning an industry certification, or participating in job training while incarcerated had a positive effect on the literacy and numeracy proficiency of some incarcerated adult students, closing the skill gap between incarcerated adults and their non-incarcerated peers (Ositelu, 2019). Participation in correctional education positively impacted post-release outcomes for some returning citizens in some of the reviewed literature (Davis et al., 2013). Creating and implementing robust educational programming could benefit students incarcerated in facilities across the U.S.

Educational needs of incarcerated students. The Adult Education and Family Literacy Act defined literacy as "an individual's ability to read, write, and speak in English, compute, and solve problems, at levels of proficiency necessary to function on the job, in the family of the individual, and in society" (National Research Council, 2012, p. 8). The National Assessment of Adult Literacy (NAAL) surveyed 18,000 U.S. adults, including 1,200 incarcerated men and women, measuring literacy levels in three areas (e.g., prose, document, and quantitative literacy). The result was that more than 90 million American adults were purported to have basic or below basic literacy levels. In addition to academic struggles for these individuals, the National Research Council (2012) reported that adults with low literacy also struggled to compete in the modern labor force and ultimately earned less than their peers with proficient to high literacy levels. The workplace has become increasingly more difficult to navigate for adults operating below the basic levels of literacy. Advancements in technology, the demands of proficient professional communication skills, the ability to read and write reports and technical manuals and understanding complex instructions have added to the struggle.

Similarly, results of the National Adult Literacy Survey indicated that incarcerated individuals lagged behind the general population in the same three literacy areas (e.g., prose, document, and quantitative literacy). Listed as evidence of the lack of literacy skills were the inability to read a newspaper or understand its content, the inability to read maps or schedules, and a lack of understanding in performing simple life skills such as balancing a check book (Hrabowski and Robbi, 1995). Ninety-four percent of incarcerated individuals in U.S. federal and state prisons will be released, and 57% of the incarcerated adult population are released within two years of their initial confinement (Ositelu, 2019, p. 1). Citing the 2012/2014 U.S. Programme for the International Assessment of Adult Competencies Household Survey and Prison Survey, the percentage of these adults who have earned a high school diploma or its equivalent was 30%, compared with 14% of the general public (Ositelu, 2019, p. 1). Without the barest minimum of educational achievement, the ability of these individuals to attain and sustain employment with a livable wage was deterred.

Overall, incarcerated participants were less educated than the general population and were less likely to have a high school credential or any postsecondary experience. Fifty-one percent of the general population had some postsecondary experience compared to 27% of federal inmates, 14% of state prisoners, and 13% of individuals in U.S. jails (Brazzell et al., 2009, p 7). Sixty percent of individuals incarcerated in U.S. jails did not possess a high school diploma or its equivalent and that three out of 10 were unemployed prior to their arrest (Brazzell et al., 2009, p. 13). The gap between educational attainment for incarcerated individuals and the general population was highest regarding postsecondary participation, and in some cases, it was twice as high as the gap seen for

high school credential attainment (Solomon, 2009). Education was cited as an essential variable in relation to an offenders' ability to develop valuable job skills and ultimate employment, which in turn impacted the odds of their return to the correctional system. The incarcerated population was described as poorly educated and that education did not necessarily guarantee employment, but a high school diploma or equivalent credential was an important element of post-release success (Harrison and Schehr, 2004).

Offenders with less than a high school education were most likely to recidivate (Lockwood, Nally, Ho, & Knutson, 2012). Young and under-educated offenders, which made up a disproportionate number of the incarcerated population, lacked appropriate skills to obtain and sustain viable employment (Dory, 2009). Correctional education could be a key contributor to successful reentry. Incarcerated individuals were less educated and in possession of fewer employable skills than their non-incarcerated peers, and there was a correlation between lack of education and incarceration (Dory, 2009). Lack of a high school diploma was associated with increased odds of returning to incarceration one released (Brewster and Sharp, 2002). "Inmates with the highest education are more likely upon release to obtain employment, earn higher wages, and have lower recidivism" (Fabelo, 2002, p. 109).

Program structure. According to the 2014 Programme for the International Assessment of Adult Competencies (PIAAC) Prison Survey data, only 42% of men and women incarcerated in U.S. federal and state prisons completed any level of education during their confinement, 21% of incarcerated students attained their high school equivalency certification, 7% of the surveyed population completed an industry certification, two percent attained an associate degree, and less than one percent

completed a bachelor's degree or higher (Ositelu, 2019, p. 31). Sixty-nine percent of surveyed participants expressed a desire to enroll in a postsecondary or CTE program but were not allowed to enroll (Ositelu, 2019, p. 31). Incarcerated students cited several challenges with the correctional education program organizational structure, including the fact that often by the time they were able to enroll and be accepted into classes, they were released before they could complete them. Scheduling conflicts were often a deterrent to completion. Correctional institutions often failed to coordinate scheduling for mandatory programming (e.g., substance abuse treatment, recreation, therapy) and education or for in-prison jobs, forcing an inmate to choose between one or the other. For residents with less than a year to serve, education was most often not considered a rehabilitative program and was not a priority (Ositelu, 2019).

Across the U.S., 84% of surveyed states offered some type of educational programming in their prisons and 98% of federal prisons did the same, though only a small number of inmates participated (Brazzell, 2009, p. 13). Postsecondary programs were the least common educational programs offered. In 1999, 60% of U.S. jails offered some type of educational services, but postsecondary offerings were rare (Brazzell et al., 2009, p. 13). The cited reasons for a lack of services offered in jails as opposed to prisons included the difficulty of designing programs for a transient population, as well as lower numbers of potential students and a lack of resources. Only 3% of local jails provided any sort of postsecondary opportunities for inmates, and only 1% of the population was enrolled; participation in state prisons was only marginally higher at 7% (Brazzell et al., 2009, p. 13). Recommended building blocks for implementing a successful postsecondary education program in a correctional environment included the importance

of accurately assessing a student's needs and placing them in an appropriate program. Success in this area depended on developing appropriate screening and assessment tools and implementing them with fidelity. Another recommendation was the need to hire well-trained, certified instructors and the need to support them. Teaching in a secure environment was described as being notably different from teaching on a university campus, no matter how similar staff may try to make it. A third recommendation included the need to incorporate 21st century technology skills into any program. Addressing technology as more than a delivery system in the classroom was emphasized. College programs were advised to make a concerted effort to teach the skills necessary to function in a post-release technology-rich world. For inmates who had been incarcerated for any length of time, the tech world was recognized as completely foreign, and given that something as simple as a job application required these skills, they were noted as essential to include. Offering incentives to motivate students as an essential building block was a fourth recommendation, including suggestions such as partnering with correctional agencies to offer good time credits for early release, offering extra commissary credits, expanding family visitation time, and intrinsic incentives such as graduation ceremonies, certificates, discussion groups, and specialized housing units (Brazzell et al., 2009). Further research was noted as needed to provide data and information regarding program characteristics (e.g., curricula, amount of time students spend in program, and staffing data). It was also suggested that colleges and universities that undertake the task of implementing a correctional program must implement them with fidelity. Program models should be based on a well-articulated theoretical framework with program elements that are grounded in research. Optimally, higher

education staff should be certified and trained to work within the correctional environment and with the unique student population. Program services must be consistently offered and in time-blocks large enough to allow students ample time to learn and complete work (Brazzell et al., 2009). Similar research results listed best practices for postsecondary education programs as ensuring there was sufficient institutional support, providing a safe learning environment, securing knowledgeable and well-trained staff, effectively assessing potential students, and employing robust student incentives (Meyer, 2011).

A common theme in the reviewed literature was around the criminal justice's inherent organizational systems as a stumbling block to effective correctional education program structure. Some difficulties working within the prison framework included the propensity of correctional officials to view education as a method of behavioral control, resentment from officers towards inmate students, and inmate students viewing college as a way to fill their leisure time instead of understanding the impact a degree could have on their post-release success (O'Neil, 1990). Offenders could not always fulfill their educational goals while incarcerated due to the limitations of the correctional setting and there was an emphasis on the need for transitional reentry programs and services for these students (Linton, 2013). Educators inside and outside of the correctional setting have been called to work together to design and implement appropriate reentry and transition programs. Collaboration with the correctional system was cited as a key component contributing to the success of postsecondary educational programming (Palmer, 2012). Ways in which this assistance could occur were in providing ample class time, study

time, access to appropriate resources, adequate and appropriate space for class meetings, and support of the program's goals (Palmer, 2012).

What might be learned from successful education programs in correctional institutions if viewed as something other than crime prevention (Bellafante, 2014)? One suggestion of what knowledge might be gained from such a paradigm shift was that the social and economic impacts of viewing correctional education as rehabilitation could be the true goal of programming, and that educators and communities would understand how to more effectively teach and reach students in troubled community schools (Bellafante, 2014). To move beyond the debate of punishment versus rehabilitation and toward purpose, one recommendation was to engage in

intentional, insistent, and deep collaboration with the men and women engaged in this work may make possible a larger shift—beyond the practices and premises that can turn education into indoctrination, a fortification of entrenched privileges and oppressions, and part of the regulatory nexus that makes today's criminal justice and educational structures homologous. (Davis, 2015, p. 147)

The idea of including inmate students in the design or decision-making process of educational program offerings was suggested (Davis, 2015).

Postsecondary correctional education background. There was a repeated lack of research regarding the status of postsecondary correctional education programs across the U.S., in part due to a lack of standardization for implementation. Postsecondary education in correctional facilities included credit bearing and non-credit bearing course offerings, correspondence and face-to-face delivery, and in some instances, distance

learning. The majority of postsecondary opportunities were offered by two-year colleges and were vocational in nature (Ositelu, 2019).

Prior to the 1994 elimination of Pell Grant eligibility for incarcerated students, the effectiveness of postsecondary correctional education participation in reducing recidivism was examined. Using data from a previous study conducted 10 years prior from offenders released from a secure facility in Ohio, the recidivism rates of parolees who had varying educational experiences was explored. The conclusion was that participation in postsecondary college programming increased the likelihood of post-release employment, which contributed to a decrease in recidivism (Batiuk, Moke, and Rountree, 1997).

Further exploration of the benefits of postsecondary participation for inmates and the correctional environment indicated that students' reentry success was improved by the skills they learned in education classes, including changing criminogenic thinking, developing pro-social skills, improving their ability to make and attain goals, problem-solving, and developing appropriate self-efficacy and self-advocacy skills (Brazzell et al., 2009). It was postulated that these competencies could shift the prison paradigm where everyone, including inmates and staff, became acculturated to negative prison values, indicating that the benefits of postsecondary participation and/or completion went beyond the technical skills provided by a degree. These benefits also included the ability of recipients to attain and sustain viable employment, a contributing factor to lowering the odds of recidivism. Fewer individuals returning to the system not only served the individual but was also of great benefit to communities. Jobs requiring a postsecondary credential were linked to higher wages, which in turn were linked to improved recidivism rates (Brazzell et al., 2009). An earned degree positively affected the likelihood that a

returning citizen's children would value education, and higher-paying jobs meant that they could meet their financial obligations such as child support or victim restitution (Brazzell et al., 2009). Providing postsecondary education to inmates created an associational environment that negated criminogenic tendencies in individuals (O'Neil, 2009). The prospect of providing a better educated workforce that would reduce recidivism was one goal of offering postsecondary programs to incarcerated students (Karpowitz, 2017). Policy makers and correctional officials were advised not to focus solely on vocational training and thus ignore the value of a liberal arts or other generalized program in improving cognitive function or employability outcomes (Brazzell et al., 2009). Vocational training, a narrow and specific skill acquisition endeavor, does not necessarily prepare a student for job-related challenges like change, problem-solving, and dealing with people. Postsecondary experiences provide a diversity of topics and opportunities that reflect a collective and diverse population, encourage independent thought, and promote critical thinking, not to mention robust networking, leading to employment (Karpowitz, 2017).

As previously discussed, reductions in funding postsecondary programs took an important hit in 1994 with the elimination of Pell Grants for students incarcerated in U.S. state and federal institutions. Until the enactment of this legislation, Pell monies were the primary source of funding for incarcerated students and the programs that served them. Research pertaining to the effects of this funding loss vary. Immediately following the legislation, the number of incarcerated postsecondary students was reported to have dropped by 44% (Brazzell et al., 2009, p. 14). Prior to the 1994 *tough on crime* legislation, approximately 350 college programs were operating inside of American

prisons; after the elimination of the Pell Grant for incarcerated students was withdrawn, the number of programs was reported as three (Knott, 2011, pp. 281-282). The decline in the number of postsecondary education programs was attributed to federal policies that withdrew funds to support such efforts (Knott, 2011).

The impact of variables on the success of higher education program implementation such as a prohibitive *tough on crime* paradigm, the dissolution of the federal Pell grant for inmates, and the ideological conflicts that were observed between correctional educators and correctional institution staff were the foundation of one study that examined the impact of the modern design of correctional postsecondary programs as they existed within the context of the modern prison system (Palmer, 2012). Proposing best practices based on this contextual design, it was suggested that collaboration between higher education institutions and correctional systems was the key to the success of postsecondary educational programming (Palmer, 2012).

Of the 4,627 institutions in the U.S. that provided postsecondary degrees, only 202 offered credit-bearing courses to incarcerated students (Castro et al., 2018, p. 414). Without the benefit of Second Chance Pell funding, many institutions could not offer these opportunities to inmates. The majority of eligible institutions were concentrated in three states: Texas, California, and New York. The Second Chance Pell provided 90% of all postsecondary correctional education funding in Texas (Castro et al., 2018, p. 414).

Postsecondary correctional education programs. In light of recent interest in the benefits of a postsecondary education in the rehabilitation of offenders and the initiation of the Second Chance Pell Grant pilot, three prominent in-prison postsecondary programs in the U.S. were reviewed. Boston University's Prison Education Program

(PEP) provided the longest-running and largest program in U.S. prisons. PEP was founded in 1972 and operated in three prisons, offering Bachelor's degrees to students who had already completed some college-level course work. The Saint Louis University program was described as being founded in 2007 with a series of courses on theology that expanded to associate degree offerings. In 1999, Bard college professor Max Kenner founded the Bard Prison Initiative (BPI), offering associate's and bachelor's degrees to inmates in three maximum security and two medium security prisons in New York state (Knott, 2011).

Perhaps the college-in-prison program of most notoriety, BPI focused on liberal arts Associate's and Bachelor's degree offerings. BPI was the subject of a four-part documentary released in November 2019 by Executive Producer Ken Burns titled "College Behind Bars" (Burns, 2019). BPI Director Daniel Karpowitz, in his book College in Prison: Reading in an Age of Mass Incarceration, stated that the criminal justice system tended to view crimes and offenders on an individual basis and so dealt out punishment with institutional power, including therapeutic measures (e.g., rewarding good behavior, punishing bad behavior, and mandating therapy) (Karpowitz, 2017). BPI's unapologetic approach to postsecondary education in New York's prison system was that college was not therapy and should not be viewed as a rehabilitative program. Instead, BPI's goal was to provide educational opportunities that allowed its students to learn with "power and purpose" (Karpowitz, 2017, p.97), just as if they were pursuing their studies outside of the prison walls. The premise was that postsecondary institutions must partner with correctional institutions while acknowledging that the two had contrasting objectives that would not be reconciled (Karpowitz, 2017).

BPI students, like many incarcerated individuals across the U.S., were most likely to choose a CTE pathway instead of a liberal arts degree, believing that vocational training would be their ticket to post-release employment (Condliffe-Lagemann, 2011). BPI faculty instilled in their students the concept that the program's curricula had vocational value, focusing on post-graduate preparation in technology, public health, and other fields where the demand for skilled workers was high. BPI students understood that their cultural capital (e.g., the ability to read, write, and speak proficiently and think critically) increased with their liberal arts training and in turn increased their chances of attaining and sustaining post-release employment (e.g., Karpowitz, 2017; Sard & Dierking, 2017).

The Goucher Prison Education Partnership (GPEP) was one of the programs associated with BPI. Rena Sard, a student in the program, credited her participation and ultimate graduation as being the motivation that spurred her to make crucial life changes. Sard's experience was note-worthy for administrators considering implementing college programming. She stated that participation increased her self-esteem, her self-worth, and her self-confidence and opened employment doors that were forever closed to her prior to graduation. GPEP provided a transitional program to assist students at reentry. The Prison Reentry Institute, an organization that also provided some college-level classes in New York correctional institutions, touted this transition work as being as important as the instruction prior to release (Sard & Dierking, 2017). Programs like BPI and GPEP were previously uncommon due to the funding issues facing colleges and correctional agencies after the 1994 crime bill. Goucher College was one of the recipients of the Second Chance Pell Grant pilot (Sard & Dierking, 2017).

Sixty-eight percent of all postsecondary offerings in prisons and jails were provided by community colleges, even though four-year programs such as the BPI received most of the media attention (Contardo and Tolbert, 2008). Community colleges were suggested as a natural fit for this work, given that they generally cost less than a four-year college, and they were often more open to new, non-traditional programming. The need for correctional and higher education leaders to commit to dedicated space and time for students to complete their course work was a common theme. This meant that facility transfers, treatment schedules, and work assignments would have to be considerate of the student's college schedule, prioritizing degree completion. This would also require a commitment on the part of the student that had to be communicated clearly during the recruitment process. Being mindful of the transferability of credits was an important consideration in developing a postsecondary correctional education program (Contardo and Tolbert, 2008). The likelihood that students would be released to their own communities and had the capability to transfer credits to a community college where they resided was cited as possibly meaning the difference between courses filling leisure time and the completion of a degree.

In a partnership between the Washington, D.C. Department of Corrections and Georgetown University's Prisons and Justice Initiative, the Georgetown Prison Scholars Program at the D.C. Jail was implemented in the spring semester of 2018 with non-credit bearing courses offered to 34 inmates. Courses leading to a Bachelor's degree were first offered to eligible inmates in the fall semester of 2019. Tuition was provided by private donations, and the program was touted as the only co-educational prison college program in the U.S. (Georgetown University, 2019; Koenig, 2019).

In the absence of programs like the BPI or Georgetown University Prison Scholars Program, where universities and colleges provided face-to-face instruction, resourceful inmates took matters into their own hands and sought out correspondence course work, or in some cases, provided peer-to-peer instruction, although it was cautioned that peer-to-peer higher education programs in prisons could inadvertently perpetuate the paradigm of education as rehabilitation and "wind up increasing the scale and scope of surveillance and scrutiny of imprisoned people" (Davis, 2015, p. 148). Higher education programs, if not careful, could have bolstered the idea that postsecondary participation was a means to social mobility based on an individual's ability to overcome a history of poor choices, ignoring pivotal legal, political, racial, financial, and gender inequality barriers. One area of advocacy reviewed was the concept that university faculty and third-party providers of higher education programs in correctional settings needed to "learn from and work with" offender peer educators (Davis, 2015, p. 147). One example supporting this argument was the work done by an offender who co-founded and facilitated a postsecondary program in the facility where he was incarcerated (Davis, 2015).

The D.C. Department of Corrections also partnered with Ashland University, based in Ashland, Ohio, to offer students who were eligible for the Second Chance Pell Grant the opportunity to pursue Associate and Bachelor's degrees. The course work was delivered via distance learning (Koenig, 2019; Sams, 2018). Ashland University alleged to have operated the longest continuous post-secondary correctional education program in the U.S. (Ashland University, 2019). In 2016, the university was one of the 67 colleges and universities selected to participate in the Second Chance Pell pilot program (Ashland

University, 2016). Courses were offered to students on a mobile learning device provided by American Prison Data Systems that did not access the internet but allowed students to message their professors, incased in a clear, protective covering that was tamper-resistant and contraband-free, making the program more palatable to security-minded correctional agencies (Schmidt, 2019). Connecting to nearby cellular towers, the content on the devices was limited by the choices of the agency administrators. Incarcerated students could pursue an Associate or Bachelor's degree, view TED talks, listen to music, and check out books from an on-line library (Koenig, 2019). By 2018, Ashland University offered in-person and distance learning opportunities to incarcerated students in Ohio, Louisiana, West Virginia, and Washington, D.C. (Sams, 2018). The university boasted over 80 graduates by 2018 (Sams, 2018).

Postsecondary correctional education programs in the WSD. In school year 2007/2008, the WSD reported post-secondary programs were offered to inmates from two and four-year colleges and universities with tuition being paid by the State Reimbursable Costs program, payable by the participating inmate upon release. Students who were not eligible for the program were responsible for all related costs at the time of participation. The WSD reported 509 Associate degrees, 56 Bachelor's degrees, and 15 Master's degrees conferred in the 2007/2008 school year (Windham School District, 2007, p. 12). In schoolyear 2008/2009, the district reported 382 Associate, 36 Bachelor's, and 11 Master's degree conferment (Windham School District, 2008, p. 11). Subsequent school years for the WSD did not report postsecondary student accomplishments. Postsecondary programming was transferred to the TDCJ's division of Rehabilitation Programs Division (Texas Department of Criminal Justice, 2019). Eligible students had

access to the state's Post-secondary Education Reimbursement program to fund a portion of tuition costs and also had the opportunity to pay for their postsecondary education via their trust-fund account or through participating colleges' direct pay program (Central Texas College, 2019). Similar to the BPI and Georgetown University Prison Scholars Program, The Texas Prison Education initiative provided credit-bearing courses in the liberal arts to incarcerated youth and adults through private funding. Founded by University of Texas staff and students in 2017, the organization served 60 students at two correctional facilities in 2019 (Texas Prison Initiative, 2019, para.2).

Impact and outcomes of postsecondary correctional education programs.

There was some evidence that prison-based postsecondary programs in New York effectively lowered recidivism (Kim & Clark, 2013). Correctional entities were described as products of public policy, and as such, correctional leaders had approached correctional education as the product of ideological and practical paradigms. The former argued for the implementation of college programs based on humanitarian grounds, and the latter examined pragmatic bottom lines such as financial feasibility and the optics of offering a free education to people convicted of crimes against citizens who had to pay dearly for the same service. Simply providing evidence that a higher education degree lowered recidivism was not be enough to convince the U.S. criminal justice system to implement mandatory or consistent educational programming. College programs in Virginia's correctional facilities indicated that the recidivism rate of participants was lower than that of non-participants (Kim & Clark, 2013). Similar results were reported at a women's correctional facility in New York, with students returning to prison at a rate that was almost four times lower than inmates who did not participate in college. A study

of returning citizens who were enrolled in a prison college program in Ohio enjoyed a recidivism rate that was 58% lower than a comparison group (Kim & Clark, 2013, p. 98). Challenges with wide-spread research on the effectiveness of postsecondary programs on recidivism included a lack of data, missing data, and differences between control and treatment groups that made measurement difficult (Kim & Clark, 2013).

Some reviewed literature cited an ever-increasing need for postsecondary education in U.S. prisons in order to prepare a qualified workforce, and yet one reviewed study indicated that education for inmates was most often at the bottom of the list of priorities for prison officials (Wheeldon, 2011). A dearth of research on the effectiveness of postsecondary education on post-release outcomes and even less on programming implemented in jails as opposed to prisons emphasized that future research should be planned and conducted from the outset of program implementation. One BPI student, for example, "sought a way forward, through the institutions of punishment, not to avoid his own responsibilities in life, but rather to embrace them with dignity" (Karpowitz, 2017, p. xix). The argument that a postsecondary liberal arts degree could not only compete with traditional vocational training as it pertained to post-release employment was supported by data, provided by BPI, that the employment rate for BPI graduates was 65% to 80% with a recidivism rate of approximately 2% (Karpowitz, 2017, p. 17). Even students who did not graduate but participated in BIP programming had a recidivism rate around 4% (Karpowitz, 2017, p. 35).

Research questions in one reviewed study elicited a common theme among participants. When posed with the question of how the participants viewed their pre-release educational experience through the lens of personal transformation, the word

'possibility' was frequently used (Halkovic, 2014). Participants framed the concept of possibility in various ways. Some thought of their own contributions to the postsecondary education community in which they found themselves and the idea that in many ways they were as much of an expert in some fields as anyone else on the campus to be personal motivators. Some believed that their postsecondary experience guided them to discover personal capabilities they did not know existed, and many identified the post-release education community as one in which they could participate and be accepted (Halkovic, 2014).

Examining the correlation, if any, between higher education participation during incarceration and reduced rates of recidivism was also the focus of research (Chappell, 2004). Evaluating studies conducted between 1990 and 1999 regarding any possible linkages, a meta-analysis based on the sampling error theory investigated not only the relationships highlighted in the original studies, but also new relationships revealed during synthesis. Results indicated that offenders who did not participate in higher education experienced a 60% re-arrest rate versus a 10% re-arrest rate for those who had at least two years of college experience (Chappell, 2004, p. 150). It was also discovered, however, that research tended to be viewed as small-scale, overly specific, idiosyncratic, and anecdotal. A few large-scale studies proved to have some limitations as well due to the number of variables included. There was a positive correlation between offender participation in correctional higher education programs and improved recidivism, given the definition of recidivism as reincarceration (Chappell, 2004).

Reviewed literature elicited an examination of the impact of first year participation in the Correctional Education Association College of the Air (CEA/COA)

program as compared to students enrolled in other types of postsecondary education programs (Meyer & Randel, 2013). A cluster randomized design was utilized to examine the outcomes of numerous variables regarding the educational experiences of incarcerated students in six states who were enrolled in two-year postsecondary programs, some of whom were participating in the CEA/COA program. Studied outcomes were from the students' first year of participation and variables included scores on critical thinking assessments, earned credits, motivation, educational aspirations, personal development, and correctional climate. Using a distance-learning delivery system, the CEA/COA program was designed as a two-year technical college offering an Associate of Arts degree to students in prisons across 13 states. Analyses of outcomes revealed that students in the CEA/COA program had lower critical thinking skills and earned fewer credits than students from the control group at the end of their first year of participation. There were no significant differences between the student groups regarding the remaining variables. Participation in postsecondary education was linked to lower recidivism and to pre-release improvements in behavior, reduced disciplinary infractions, improved relationship-building capacity, and enhanced self-esteem (Meyer & Randel, 2013).

Colleges and universities with correctional programs examined reentry outcomes beyond post-release employment and recidivism. An exploration of the effect of correctional education on pro-social attitudes, executive cognitive functions, interpersonal and family relationships, and community engagement was conducted (Brazzel et al., 2009). Colleges and universities engaged in providing postsecondary offerings to incarcerated students also explored the financial benefits of implementing

these educational programs of study. Investing \$1,182 in vocational training saved U.S. states \$6,806 in future criminal justice costs, and investing \$962 in academic programs saved states \$5,306 (Brazzel et al., 2009, p. 19). Similar data for postsecondary programs was noted as much needed. Likewise, data specific to jails was noted as needed. A cost-benefit analysis conducted in 2006 suggested that a reduction in recidivism as low as 7% resulted in a cost-savings for taxpayers (Brazzell et al., 2009, p. 19). Additional benefits in need of study included the social benefits of avoiding victimization and the potential cost savings resulting from the increased number of individuals legally employed. The cost of incarceration was reported as an ongoing concern for states and the U.S. as a nation, and that upon studying the direct costs associated with incarcerating individuals compared to the costs of implementing correctional education programs (including postsecondary offerings), correctional education program participation reduced reincarceration costs by \$0.87 to \$9.97 million (Davis et al., 2013, p. xviii).

Career and Technical Education (CTE) programs. In the reviewed literature, there were clear distinctions between postsecondary offerings that focused on academics and ones that focused on vocational training. Some vocational education programs were moderately effective in reducing recidivism (Bouffard, MacKenzie, & Hickman, 2000).

The conundrum of academic versus vocational education for offenders was discussed (Rose, 2012). A commonly held distinction in the U.S. between the two areas of study included CTE or vocational training being viewed as a course of study designed to prepare a student for entering the workplace, generally as a blue-collar worker, and college as a track suited to arts, sciences, and philosophical pursuits. John Dewey's prediction that compartmentalizing curricula would cause division and limit the

intellectual progress of students choosing a vocational pathway of study was also discussed (Rose, 2012). Postsecondary professionals argued that incarcerated individuals were not only capable of intellectual, college-level rigor, but had every right to access it (Karpowitz, 2017; Rose, 2012). One assessment of this perceived right to a postsecondary education was summarized as "also real are the ways that privilege and inequality distort what education looks like for different students, depending on who and where they are" (Karpowitz, 2017, p. 18). The claim that there was too much emphasis on vocational training for people who live in poverty and for individuals residing in carceral spaces or returning to the community from them was made as sometimes being due to the traditional view that offenders lacked the skill to participate in academic endeavors (Karpowitz, 2017). Sometimes, the reason was cited as being more practical. Inmates were frequently only able to access education a short time before release, leaving too little time to pursue a degree or certification, and other times the lack of academic offerings were due to a lack of correctional institution and higher education partnerships (Karpowitz, 2017). In some cases, the benefits of CTE participation did not appear to extend past the prison walls. For instance, vocational programs in Oklahoma prisons were not only cited as ineffective but actually appeared to be a liability for participants. Offenders who participated in Oklahoma correctional CTE programs returned to prison after release at a faster rate than those who did not participate in CTE (Brewster and Sharp, 2002).

Correctional Career and Technical Education background. In the literature, CTE was also referred to as vocational education, voc-tech, or occupational training (Crayton & Lindahl, 2015; Dortch, 2014). Documentation of CTE programs in U.S.

prisons dates to the 1800's, when they were mostly faith-based. In the 1930's, prisons began implementing CTE programs that were vocationally-oriented. Believing that the hands-on, career-readiness nature of CTE programs would reduce idleness amongst the prison population and possibly reduce recidivism, criminal justice systems increased programs in the 1970's and 1980's. The programs were also considered to be cost-effective since they largely depended on outside industry partnerships (Ward, 2009).

CTE programs were designed to provide occupational and non-occupational preparation to secondary, postsecondary, and adult education students and to play an integral role in the U.S. workforce development system in reducing unemployment across the country. CTE programs have attempted to prepare students to be competitive in the current labor market and presented them with technical and employability soft skills in 16 career clusters and various career pathways for each (Dortch, 2014). CTE career clusters were reported as being comprised of general occupational categories, and career pathways were generally referred to as education and training strategies leading to industry-recognized credentials/certifications and ultimate employment. CTE for adult education included programming for incarcerated students. CTE programs provided career-readiness skills through a combination of classroom or online instruction and hands-on skill training and generally required less time to complete than literacy or postsecondary programs, offering students a more immediate result in preparing for post-release employment. CTE programs were suggested as viable solutions for offenders who were to be imminently released and may not have had time to complete an academic course of study (Dortch, 2014).

Recently, there has been an increase in emphasis of course pathways that lead to the attainment of an industry certification. Table 1 illustrates the findings of a U.S. nation-wide survey of existing CTE programs in the U.S., with 42 states responding (Davis et al., 2014, p. 61). Construction and automotive training were offered most frequently, offered in 28 states, with occupational safety, plumbing, or electrical training following in 20 states, automotive service in 19 states, and training in welding manufacturing in 14 states. The survey results calculated that 24 states offered certification courses in technology as well (Davis et al., 2014, p. 61).

Table 1

CTE Certification Program Survey

Certification Offered	Overall (N (%))
National Center for Construction Education and Research	28 (67%)
Microsoft Office certification	24 (57%)
Occupational Safety and Health Administration training programs	20 (48%)
Apprenticeship cards (e.g., plumbing, electrical)	20 (48%)
National Institute for Automotive Service Excellence	19 (45%)
American Welding Society	14 (33%)
Our state does not offer nationally or industry-recognized certificates	2 (7%)
Total number of states responding	42

Note. Percent represents the percentage for each column of the number of states who responded (Davis et al., 2014, p. 61).

Further emphasis of the importance of educational programs that offered vocational training such as carpentry or plumbing was also reported (Harrison & Schehr, 2004). Possession of a marketable skill or industry certification contributed significantly not only to post-release employment, but also to the individual's perception of self-worth and sense of purpose. Earning an industry certification and/or a high school equivalency credential increased employment opportunities for released students (Black, Brush, Grow, Hawes, Henry, & Hinkle, 1996). One example of the impact of earning an industry certification on wage earning potential was for individuals who completed high school but did not enroll in postsecondary education nor earn an industry credential; median monthly earnings for these individuals were reported as \$2,500, whereas the median monthly earnings for a student who earned a professional certification was \$3,053 (Dortch, 2014, p. 14). Students who only earned an educational certificate earned \$2,917 per month (Dortch, 2014, p. 14). Earning an associate degree without an industry certification resulted in even higher earnings at \$3,240, and individuals with both an associate degree and professional certification had a median monthly income of \$3,810 (Dortch, 2014, p.14).

Identifying and enrolling students in a timely manner so that they had time during their incarceration to complete CTE courses and accompanying certification was considered an important function of correctional leaders, as was providing marketable skills for students as a key component in CTE programming. An historical timeline of CTE programming in correctional institutions and the impact it had on post-release

outcomes was presented in the reviewed literature, including a sample of 14,411 inmates released between March 1991 and December 1992 from the Texas Department of Criminal Justice (TDCJ) (Ward, 2009). Research was conducted in concert with TDCJ, Sam Houston University, and the WSD. Findings included a positive correlation between CTE participation and lower recidivism rates. Offenders who were enrolled in and/or completed WSD CTE courses also had fewer revocation rates and improved behavior while incarcerated (Ward, 2009). In studying correctional education programs across the U.S., similar results in states other than Texas focused on the relationship between correctional CTE participation and post-release job attainment. Future research was suggested in order to evaluate the impact of correctional CTE programs on post-release outcomes. It was also suggested that future research should implement controls for irrelevant variables that could possibly effect outcomes in order to establish more precise results (Ward, 2009).

Lack of participation in educational offerings was also a focus of reviewed literature. For example, in one program, only 11% of eligible inmate participants were enrolled in college courses due to correctional organizational limitations (Erisman & Contardo, 2005, p. 27). Much like participation in postsecondary academic programming, CTE fell prey to limitations in the correctional system. Even where programming was offered, participation was often low. In one example, it was reported that only 27% of state offenders participated in available CTE programming (Crayton & Neusteter, 2008, p. 10). Common limitations to low participation were the reduction of programs, the inability of the inmate to enroll because of waiting lists, or simply disinterest on the part of inmates to participate (Crayton & Neusteter, 2008).

In some cases, it was difficult to determine if post-release employment success was influenced by participation in pre-release training courses. In one example, only four of 50 participants attained employment in the field for which they were trained and certificated during their confinement (Cherney & Fitzgerald, 2014, p. 28). For many of the participants, pre-release vocational training was a productive way to fill leisure time while they were incarcerated but not necessarily intended to be of use once they went home. The inmate participants were proud of their work experience, their work ethic, and the certifications they had earned but also reported that once released, these accomplishments did little to ensure employment (Cherney & Fitzgerald, 2014).

An additional issue with interpretation of any research results was due to the fact that CTE correctional students participated on a voluntary basis, meaning that in attempting to determine whether or not the CTE programs prevented or reduced recidivism, it was impossible to know whether or not the students who self-selected to be in CTE courses were high-risk or low-risk for recidivating prior to the participation. Existing studies did not take this into consideration (Brewster & Sharp, 2002). For many inmates, CTE participation was chosen for a variety of reasons that were not necessarily associated with choosing a different path once released. Many inmates believed that CTE participation would help them earn parole or early release, some were just trying to productively fill their time during confinement, and for others, participation in some sort of educational program was a condition of their confinement. Another consideration in interpreting research results was the practice of correctional agencies in frequently moving inmates from facility to facility. It was posited that this practice frequently kept inmates from completing a program, prevented them from achieving certification, and

often required a completer to be released in an area or region that did not have the same workplace market as the location where they attained certification. There was not enough data to explore these factors (Brewster & Sharp, 2002).

Vocational education programs provided in prisons were most successful when they focused on skills that could be translated into the current workforce market. Many CTE programs were determined to have failed their students because the skills taught are not relevant to the needs of the free-world work place (Martinson, 1974). In Oklahoma, research results indicated that participation in CTE programs was actually detrimental to recidivism rates. It was suggested that in order to determine if CTE participation was truly effective, researchers needed to look at the state programs overall instead of examining individual programs (Brewster & Sharp, 2002). If examined individually, effective programs could be identified and then replicated for greater post-release success.

Examining the Importance of Post-Release Employment Attainment

What then, is the role of correctional education in preparing offenders for successful reentry and reintegration into their communities? What does the literature say about the importance of getting a job upon release? In the expansive literature available on recidivism, there are few studies that included data on post-release employment (Skardhamar & Telle, 2012). There was an indication that post-release employment was an essential indicator of successful reentry and reintegration for a returning citizen (Ositelu, 2019). Additionally, post-release employment attainment was not an emphasis of most reentry literature and study, the dearth of data attributed to the difficulty correctional organizations have in obtaining post-release information of returning citizens

and also to the lack of meaningful pre-release educational information, though employment was a key factor leading to successful reentry (Pompoco et al., 2017).

Benefits of post-release employment attainment. The 2014 PIAAC Survey of Incarcerated Adults focused on a sample of 1,048 men and 267 women confined in 98 U.S. federal, state, and private prisons (Rampey et al., 2016, p. 2). Participants completed a survey designed to assess abilities and skills ranging from simple reading to complex problem-solving. The data from the 2014 survey was compared to data of non-incarcerated individuals, resulting in findings that highlighted statistically significant differences between the two populations for almost every characteristic presented. In addition to literacy skills, the study also examined work experience prior to incarceration and work experience and certifications earned during incarceration. Half of the participants reported they were employed full-time prior to their confinement, 16% reported working part-time, and the remaining 34% reported not being in the paid workforce (Rampey et al., 2016, p. 10). Of the surveyed adults, 61% had a prison job, and 71% received an employment-related certification while incarcerated (Rampey et al., 2016, p. 15). In the areas of job skill and post-release employment attainment, 39% of the participants cited an increased possibility of attaining a job upon release as their primary reason for enrolling in a correctional education program; 23% of the surveyed individuals had participated in correctional CTE programs (Rampey et al., 2016, p. 29).

Stable employment fostered a positive sense of identity to offenders. The routine and boundaries inherent in a steady job reduced exposure to situations that might lead to criminal behavior. Being able to pay bills, secure housing, and associate with a group of people who did not participate in post-release criminal behavior were important reasons

cited for correctional facilities to offer in-prison employment preparation programs (Berg & Huebner, 2011). There were many reported benefits of attaining legal employment upon release, including the belief that employment will decrease the likelihood of recidivating. Being able to support a family, live comfortably, and earn a sustainable living wage were additional benefits. According to routine activity theory, going to a job regularly, building positive relationships there, and routinely being influenced by role models who are not engaging in criminal behavior were beneficial as well (Skardhamar & Telle, 2012).

The effect of correctional education and post-release employment on recidivism was examined for 6,561 offenders released from the Indiana Department of Corrections (IDOC) in the year 2005 (Lockwood, et al., 2012). Focusing on any possible effect higher education attainment might have on employment status, results of post-release employment in this study showed that 62.4% of the tracked offenders were employed for at least one quarter, 37.6% had never been unemployed, and 66.7% of the offenders with a college education were among those who obtained employment compared to 57% whose educational level was below high school (Lockwood, et al., 2012, p. 387). The recidivism rate for all offenders in the study was 48%, and the rate of recidivism for the offenders with a college education was 31% compared to 56% whose educational level was below high school (Lockwood, et al., 2012, p. 388).

A lack of empirical evidence linking higher education participation to reduced recidivism was described as a roadblock to better support of programming. Study results that documented offenders' low levels of educational achievement and skills, lack of employment attainment, and insufficient wage-earning potential, indicated that these

issues should illuminate the need for increased educational programming as preventive measures for recidivism (Batiuk et al., 1997). However, the apparent lack of consistent findings coupled with methodological limitations of empirical studies contributed to inconclusive linkages between postsecondary education during incarceration and its role in post-release employment attainment or recidivism reduction. An attempt to examine the impact of correctional postsecondary education on recidivism through the lens of post-release employment was executed. Two years of post-release data was reviewed for 32,020 offenders who were released from prison for the first time between 1997-1998. Of those offenders, 23,822 were eligible for educational programming while incarcerated and 11,866 actually participated (Fabelo, 2002, p. 106). Data was analyzed for 8,768 of these participants. The conclusion was that offenders with the highest level of education experienced an employment rate that was 31% higher than those with none to lower levels and earned an average of \$2,443 more per year (Fabelo, 2002, p. 110). Offenders who participated in an educational program experienced an 11% decrease in recidivism compared to inmates who did not (Fabelo, 2002, p. 109). Correctional education was credited with generally improving reentry prospects for inmates, especially for those men and women who began their educational programming at the lowest levels and also with reducing some common barriers to employment (Fabelo, 2002).

The exploration of post-release employment and recidivism rates of offenders released before, during, and after the economic recession of 2008 in Indiana was the subject of one work of reviewed literature. Recidivism and employment data for 6,561 offenders in 2005 were examined via a logistic multiple regression analysis to explore the effect of specific characteristics of the offender cohort, such as gender, age, ethnicity, and

level of education on recidivism during a period of economic recession. Measures also considered specific types of offenders based on the nature of their original offense (i.e. drug, sexual, violent and non-violent). Results indicated that an offender's level of education and ability to obtain employment were the most important predictors of recidivism (Nally, Lockwood, Ho, & Knutson, 2014). Uneducated and/or unemployed offenders were most likely to be reincarcerated. Data results for rates of recidivism showed 55.9% for offenders without a high school credential, 46.2% for offenders with a high school equivalency credential, and 31.0% for offenders with a college education (Nally et al., 2014, p. 29). It was concluded that there was a clear need to enhance correctional education for inmates to increase their employability upon release which, in turn, would decrease recidivism (Nally et al., 2014).

Studies conducted as early as 1968 positively linked unemployment and the propensity of an individual to participate in criminal behavior (Mauro and Camreci, 2007). High unemployment rates were correlated with high crime rates (Ositelu, 2019). Former President Barack Obama stated "our prisons should be a place where we can train people for skills that can help them find a job" (Ositelu, 2019, p.6).

Barriers to post-release employment attainment. In the face of the overwhelming belief that job attainment is a protective factor for returning citizens regarding possible recidivism, what makes employment difficult for these individuals? Several hurdles facing returning citizens who attempted to reenter the workforce upon release were listed. One challenge was a lack of skill, particularly in a world where technology changes so rapidly. Other obstacles included unstable employment history, low education levels, loss or lack of social skills, mental health issues, and the reluctance

of employers to take a chance on someone with a criminal history. It was also posited that the effort required to overcome obstacles in order to obtain legal avenues of income was often abandoned in the face of more expedient, albeit illegal, methods of obtaining money (Skardhamar & Telle, 2012). Similar barriers were listed in the reviewed literature: lack of technical skill, little job experience or the only job experience having occurred in prison, and a reluctance on the part of employers to hire former offenders with certain offenses (e.g., domestic violence, sex offenses, violent offenses) (Berg & Huebener, 2011). One of the biggest barriers to successful reentry was described as the lack of job training and available jobs for ex-offenders. Ironically, federal officials had long encouraged communities and businesses to give parolees a chance by giving them jobs, but many federal and state departments would not hire individuals with criminal backgrounds (Dory, 2009).

One qualitative study focused on real and perceived stigmatization that returning citizens faced at reentry (Copenhaver, Edwards-Wiley, & Byers, 2007). Stigmatization was listed as one factor that played negatively in the lives of former offenders seeking to continue their education or seek employment. Stigmatized individuals suffered from low self-esteem and self-concept and depression, making it more difficult for them to interact socially with others. At a time when a returning citizen must be actively pursuing employment, negative reactions to the stigmatization of being a former offender were debilitating. Participants stated that concealing the fact that they had been incarcerated was stressful. Returning citizens agreed that they experienced conscious and subconscious efforts to keep the fact that they had been incarcerated a secret from individuals they perceived would negatively receive the information. Participants

reported that concealment was more difficult if they had tattoos that were considered to have the appearance of jailhouse tattoos. The participants were conscious of the fact that the stigma of tattoos had faded and was more widely accepted in the general populace, but in some settings, they felt it was still advantageous to conceal them in order to remain unidentified as a former offender. Specific incidents in which the students experienced the desire to conceal their tattoos and their criminal history were with college administrators and potential employers (Copenhaver et al., 2007).

It was postulated that connecting former offenders to employment must occur but that the simple act of finding someone a job in no way guaranteed they would embark on a crime-free lifestyle (Doleac and Hansen, 2016). A possible connection between criminal activity and employment led to the assumption that a better job could be a deterrent to criminogenic behavior but that landing a better job was difficult for returning citizens. Listed barriers to employment included a lack of education, lack of skill, lack of positive work history, and high rates of mental illness, addiction, and untreated trauma issues (Doleac & Hansen, 2016). Employer discrimination was also described as an intimidating barrier. Some discrimination, such as an individual's personal bias towards criminal behavior, was reported as possibly insurmountable. The fact that most job applications required applicants to report any criminal charges proved to be an unscalable hurdle that prevented many returning citizens from getting past the initial application, much less to the final stages of landing a job. The ban the box (BTB) movement asked that employers not be able to inquire about an applicant's criminal history until later in the hiring process. Advocates of BTB believed that if employers did not know of an individual's criminal record at first blush, the playing field would be equalized and

perhaps former offenders would at least make it to the interview stage and then be able to discuss their experience and what they learned from and during confinement (Doleac and Hansen, 2016). As of July, 2019, The National Employment Law Project reported that 35 U.S. states, the District of Columbia, and approximately 150 cities and counties had some variation of BTB policies, the first being Hawaii in 1998 (Avery, 2019, p. 1).

Employment alone may not have the desired result in preventing recidivism. Former offenders on supervision who ultimately returned to the criminal justice system were less likely to have a stable job, enjoy their employment, promote through the employment ranks, and were more likely to have unrealistic expectations about post-release employment than their successful counterparts (Latessa, 2011). A comparison between prosocial and criminogenic behaviors that lead to recidivism was drawn. For the general population who had never been incarcerated, the loss of a job was viewed as a negative life occurrence, but most people immediately sought and secured alternative employment. For a returning citizen, the loss of a job might have precipitated criminal behavior that landed them back in confinement. Attainment of a job was a protective factor for returning citizens but the inability to cope with negative life experiences like losing a job factored more heavily in the odds of recidivating than the actual absence of employment (Latessa, 2011).

Impact of wage-earning potential on post-release success. The relationship between low quality jobs with low wage-earning potential and unemployment, re-arrest, or reincarceration was the subject of study in some reviewed literature (Harrison & Scheher, 2004). The importance of attaining and sustaining employment that provided a living wage was a topic of interest because "research suggests that the likelihood of

recidivism decreases when legitimate employment is coupled with a livable wage” (Carter, 2008, p. 108). Additional numerous benefits to participating in correctional education for incarcerated students included a 93% increase in income for those who possessed a bachelor's degree, wage earning benefits for those who had at least two years of college experience, and a recidivism rate that was 20%-60% lower than offenders who did not participate in correctional education programming (Escobar et al., 2015, p. 33). It was essential for released offenders to obtain a job with sustainable wages that allowed them to meet daily living expenses with appropriate benefits in order to avoid offenses that would result in reincarceration. There was a need for in-prison and post-release access to education and job-training opportunities for offenders (Lockwood et al., 2012). Correctional education academic and skill-based programs were crucial in assisting offenders in increasing their odds of employability (Gordon & Weldon, 2003). Findings from one study indicated that education was statistically correlated with an offender's post-release employment opportunities (Lockwood et al., 2012). Correctional education programming that included on-the-job training work programs better prepared students for employment that provided a livable wage (Gordon & Weldon, 2003).

In a study of post-release stigmatization, not only were there issues with social stigmatization on the college campus, but study participants also struggled with concerns that the stigma of being a former offender would prohibit them from obtaining and sustaining employment, even after they had successfully attained a degree (Copenhaver et al., 2007). Responders acknowledged that they felt employment that provided a livable wage was essential to being able to financially provide for themselves and their families and thereby avoid a return to criminogenic behaviors. The completion of their college

degree was the pathway to a career that could be the beginning of a new way of life, and the fear that their past could prevent success in attaining a job with a sustainable wage was a critical concern for these students (Copenhaver et al., 2007).

An examination of the traditionally held understanding that there was a link between unemployment and crime was undertaken in 1994 (Freeman, 1994). A commonly held belief was that unemployment was the key determinant of criminal behavior. An exploration of crime rates in the 1980's and 1990's was undertaken, when *tough on crime* legislation began in earnest and incarceration rates in the country soared to all-time highs. It was postulated that crime was not only a result of unemployment but was also dependent on an individual's assessment of the current labor market and economic trade-offs. Having a job was not a strong enough deterrent to committing a crime if there were strong enough economic incentives to do so. Earnings inequality, particularly the effect that a deteriorating job market for low skilled workers had on rising crime rates, was examined. It was determined that it was no longer enough to simply have a job when that job would not render wages that would keep an individual above the poverty line, and that the increase and accessibility of illicit drugs (and the selling thereof) presented an attractive economic alternative to a low-paying licit salary (Brewster & Sharp, 2002; Freeman, 1994).

Data regarding a population's reported income and the percentage of people living in poverty is used to predict crime rates and subsequently the opportunity for individuals to commit a crime (Freeman, 1994). An ethnographic study in the 1990's revealed that gang activity amongst young adults in urban areas shifted during this era from battles over territory and familial loyalty to a business model. Money became the focus.

Suddenly gangs were operating like corporate entities with high stake cash as the end goal. It was concluded that young people were no longer willing to accept employment they felt was beneath them, even if they lacked the skills and education to join the legal labor market, nor were they willing to accept the low wages that accompanied low skill jobs (Freeman, 1994). It was additionally acknowledged that for people who had committed crimes that were economically motivated, wages earned in temporary employment, fast-food restaurants, and other low paying jobs were not enough of a deterrent to a return to criminal behavior such as selling drugs or robbery (Harrison and Schehr, 2004).

In one meta-analysis, state correctional agencies were described as beginning to recognize the possible value of offering CTE programs that culminated in an industry certification that would provide relevant credentials to possibly boost an individual's wage-earning potential (Davis et al., 2013). A determination as to the degree to which these certifications increased a returning citizen's ability to attain and sustain post-release employment was inconclusive. Former offenders historically faced what sometimes appeared to be insurmountable challenges in attaining employment that paid a livable wage, particularly in a workforce that valued postsecondary degrees. It was determined that more assessment was needed of pre-release CTE programs and any credentials they provided to students (Davis et al., 2013). The report included a recommendation to federal and state policy leaders to examine the current state of the U.S. economy and needs of the workforce and to use that information to encourage appropriate vocational training opportunities for incarcerated citizens. Considered to be the most relevant and robust research on the impact of correctional CTE on wage-earning potential, the Rand

meta-analysis recommended using the report and the survey conducted across the U.S. as baseline data for further research as they discovered the information available was limited, out of date, and unhelpful (Davis et al., 2013).

Low education levels and lack of employability skills contributed to the challenges that many returning citizens faced in attaining a position that paid a sustainable living wage (e.g., Davis et al., 2013; Nally et al. 2014). Low literacy skills were associated with low-paying jobs and unemployment. The Fragile Families and Child Wellbeing Study analyzed the impact that incarceration had on the wage-earning potential and employment status of male participants with children living in poverty (Geller, Garfinkel, & Western, 2006). Results indicated that participants who had been incarcerated were less likely to be employed than their non-incarcerated counterparts (Geller et al., 2006). Low educational attainment was linked with lower wages even when an individual had earned a high school equivalent certification (Davis et al., 2013). The attainment of a high school equivalent certification by an incarcerated individual who had dropped out of high school did not yield a significant increase in immediate post-release hourly wages. The lack of wage increase was attributed to a lack of non-cognitive skills such as perseverance and resiliency. Five years past release, the high school equivalency credential did appear to have a 10%-19% increase impact on wages of white returning citizens with no effect on participants of other ethnic groups (Davis et al., 2014, p. 51). Another study in the same meta-analysis indicated that the attainment of the high school equivalency certification increased the wage-earning potential of formerly incarcerated men and women by 15% in the first two years that they returned to their communities but diminished in year three and beyond (Davis et al., 2014, p.51). It was determined that

participating in correctional literacy classes was of greater benefit to former offenders in the workplace than the actual credential, indicating that skills such as planning and being persistent were of greater value than the certification (Davis et al., 2014).

In order to decrease recidivism across the U.S., it was noted that just having a job was not enough. The outcome of employment should be a sustainable living wage. There was criticism of correctional CTE programs that did not adequately prepare students for jobs that resulted in wages that would, at a minimum, cover an individual's daily living expenses upon release. The Pew corporation reported that formerly incarcerated participants up to the age of 49 experienced approximately \$179,000 in lower wages, 30% to 40% less than their non-incarcerated peers (Flake, 2015, p. 60).

Understanding Post-Release Challenges that Face Returning Citizens

Returning citizens faced a myriad of challenges in integration back into the community upon release. Obtaining suitable housing, finding a job, securing enough money on which to live, and repairing and forging relationships are among the struggles they must overcome. A review of existing literature explored the ways in which recidivism was defined, the societal challenges that many returning citizens faced, and the barriers that kept many from furthering their education beyond the prison walls.

Recidivism defined. Recidivism was technically defined as "a tendency to slip back into a previous criminal behavior pattern" (Beck, 2001, p. 1). It was difficult for researchers and lay-people to understand the measurement of recidivism from state to state. In Florida, for instance, recidivism was defined as reincarceration or being charged with a new felony offense. In Colorado, recidivism also included technical violations of parole. In some states, a former offender who committed a misdemeanor but was not

incarcerated was counted as recidivism, and in other states, parole revocation might count but only if the revocation was not due to a drug offense. Some prison systems only counted re-arrest or reincarceration if the new offense occurred in their state. Thus, when comparing recidivism rates from state to state, the exercise was much like comparing apples to oranges. Some common definitions of recidivism included re-arrest, reconviction, reincarceration, and parole violations (Bouffard et al., 2000).

Why was recidivism chosen as a performance metric for the criminal justice system? The Urban Institute (n.d.) offered a few reasons that measuring the rate of re-offense of released inmates was of importance. One was that understanding the costs associated with incarcerating individuals was financially important to cities, states, and the U.S. as a whole. In considering public safety, the types and severity of crimes committed post-release was of interest to policy makers and law enforcement entities. For the courts, recidivism offered profound data that informed decisions around resource allocation. As a performance measure regarding programming, security procedures, and reentry planning, recidivism rates were principle measures for correctional agencies. A quick guide provided by the Urban Institute (n.d.) cautioned that using recidivism to compare criminal justice systems based on recidivism rates should be used with caution since each jurisdiction defined recidivism in different ways. The guide grouped recidivism measures into three categories: re-arrest, rebooking, and reconviction (Urban Institute, n.d).

Issues around measuring recidivism and the time frame during which that measurement took place was also discussed (Beck, 2001). From state to state, the measured timeframe ran the gamut from one to 22 years. As an example, an ex-offender

who committed a new crime within two years of release in Massachusetts prior to 2001 was not counted as a recidivist but would have been counted in Oklahoma. Some states only counted recidivism during the time a former offender was on supervision, meaning that individuals who were not released to parole and committed new offenses were not counted, and if an individual committed a new crime one day after being released from supervision, that was not counted as recidivism either. The longer a state stretched the timeframe for measuring recidivism, the more ex-offenders they counted (Beck, 2001). Making sense of recidivism data was often described as difficult. One difficulty was the question of how anyone could know if a particular metric was good or bad, given the fact that comparison measurements may not have been equal, or that subjects may not have been homogenous (e.g., comparing a male program to a female program). In conclusion, it was suggested that consumers of criminal justice recidivism data and researchers must ensure that groups were comparatively adequate in order to make any determinations regarding recidivism (Beck, 2001). The Urban Institute (n.d.) reported that researchers typically measured recidivism in increments of six months, one year, and three years.

Defining recidivism in the case of predicting its likelihood has become paramount in many courtrooms. Recidivism has been defined simply as "the reoccurrence of criminal behavior" (Eaglin, 2017, p. 75). The definition of a reoccurrence, then, became the focus. There were several strategies listed by which an individual could be considered a recidivist. Being convicted of a new crime could, for instance, be counted as recidivism. In some instances, being arrested or formally charged with an offense but not convicted could also be considered recidivism, as could an arrest without being formally charged. Probation revocation, whether due to committing a new crime or committing a technical

violation, was also listed as a possible definition of recidivism (Eaglin, 2017). Technical violations included such acts such as failing a drug test, inability to pay a fine, or even being late to a meeting with a probation officer. Two types of accuracy involved in predicting the probability of recidivism were listed. Predictive accuracy relied on a tool that was designed to at least provide data that was better than chance. The other type of accuracy was listed as classification accuracy, described as "the predicted outcome event occurs as frequently as anticipated by the tool" (Eaglin, 2017, p. 90). Further examination of predicting recidivism with risk-based sentencing tools was suggested to ensure that there were appropriate accountability measures employed prior to use (Eaglin, 2017).

Regardless of the definition, it was acknowledged that errors could exist in any recidivism study (Ruggero, Dougherty, & Klofas, 2015). To compare outcomes, it was suggested that every study must clearly define and align what constituted recidivism and what measures were employed to derive at the definition. One issue highlighted was any attempt to compare recidivism by individuals released from jails vs. prisons. The transient nature of a jail population rendered inconsistent recidivism data. Some individuals in jails were serving short periods of confinement, some were waiting for a trial, and some were awaiting a transfer whereas individuals confined in prisons were serving longer periods of time and were generally in one location for longer durations than those persons confined in a jail (Ruggero et al., 2015). It was summarized that because jails serve a function not served by prisons, recidivism data in jails should be used for decision-making purposes such as improving security, providing programs, and planning reentry and reintegration strategies instead of as a performance measure (Ruggero et al., 2015). Fewer than 20% of jail inmates remained for longer than one

month, making recidivism rates difficult to use as a performance measure, and 62% of inmates confined to jails had not yet been convicted of any crime (Solomon, 2009, p. 2). Many inmates housed in jails were pre-trial or sentenced offenders, some were there for probation or parole violations, and in some instances, state or federal prisoners were simply being detained temporarily. In those cases, jail officials had no idea when a state or federal detainee would be released, making programming or release planning almost impossible (Solomon, 2009).

In considering individual offenders, recidivism was viewed as a multi-tiered problem with no easy answer. Many considerations were found to be factored in a former inmate's decision to re-offend after release. There was a reported dearth of vigorous studies designed to measure the impact of rehabilitative programs on recidivism, and of the existing studies, results were widely varied (Visher et al., 2007). Some prison systems that provided institutional programming did experience lower recidivism rates. Prison programs such as anger management, vocational skills training, educational opportunities, and even trauma support groups were described as vital to ensuring inmates who were reintroduced to the general population had the life skills necessary to stay on the right path, though they were not consistently or effectively implemented in all systems (California Innocence Project, 2019). Fehr (2009) stated

if we tried to design a method to increase recidivism among inmates about to be released, we would be hard pressed to invent a system more likely to fail than one that eliminates opportunities to improve while in prison and then provides scant support, service or supervision upon release. (p. 8)

The allocation of resources by state agencies to pre-release educational programming was generally motivated by a desire to lower rising recidivism rates. A mitigating factor to these high rates of recidivism was the lack of skills, both educational and societal, of returning citizens (Davis et al., 2013).

Societal challenges that impact recidivism. Returning citizens also faced many societal challenges upon release. Reuniting and reintegrating with family, securing appropriate housing, finding a job, retrieving documents such as a state I.D., social security card, or birth certificate, forfeiting the right to vote, managing the stigma of a criminal history, and facing other mental health issues such as depression or substance abuse were described as making post-release survival difficult. Finding employment that paid a sustainable living wage was especially difficult (Ositelu, 2019). Former offenders operated in a cycle of oppression that identified them in a permanent status of underclass (Alexander, 2012).

Societal stigmatization was chronicled as a serious deterrent to successful reentry. Terms such as *ex-con* or *former offender* labeled individuals attempting to rejoin their communities in a negative manner. Some communities, such as Washington, D.C., adopted more positive terminology. *Returning citizen* became the accepted nomenclature in the District. It was acknowledged that friendlier terminology lessened the blow for those citizens returning to the community, but returning citizens reported the reality of a criminal history frequently felt like a career-ender, no matter the terminology (Yates, 2015). In 2015, approximately 60,000 people in D.C. had criminal records, with more than 8,000 returning to the community annually (Yates, 2015, para. 4). With limited education and work skills, it was reported that these men and women were leaving a

punitive system designed to break their will and returning to a community that was changing rapidly due to gentrification and increased technology. It was a community unrecognizable to many who had been incarcerated for years as the city progressed and transformed itself. A by-product of mass gentrification, small businesses that might have formerly hired a returning citizen were fewer in number and required a basic knowledge of technology that was not fostered during confinement (Yates, 2015). Because former offenders feared the negative impact of the social stigma of their criminal background and incarceration, they attempted to effectively hide their history from co-workers, and for those who were enrolled in postsecondary education, from fellow students and college faculty, therefore isolating themselves from much needed assistance. If employers and universities recognized, accepted, and supported these individuals, their post-release employment and postsecondary success would be more likely, thereby reducing their odds of recidivating (Copenhaver et al., 2007). Interview responses revealed that individuals who feared social stigmatization and therefore spent an inordinate amount of time and energy in concealing their background suffered from lower self-esteem and higher anxiety than those who were open about their criminal history. Poverty, the odds of recidivism, and the fact that a criminal record frequently inhibited them from participation in postsecondary education contributed to this cycle of returning to the system for former offenders (Escobar et al., 2015).

Barriers commonly believed to be purposefully set by society to limit the success of returning citizens were identified. Believed to be protective factors to public safety, employment background checks, limitations on certain job categories or licensure, public assistance restrictions, background checks and limitations on housing acquisition, and

limited or no access to medical, substance use, and mental health services increased the stigmatization of being a former offender and offered challenges that in some cases were insurmountable (Fabelo, 2002). Even returning citizens with the highest levels of education struggled with these barriers. Although they experienced an employment rate that was 31% higher than their less educated counterparts and averaged \$2,442 more per year in annual wages, they still experienced an employment rate that was 27% lower and wages that were only slightly higher than minimum wage than their co-workers who had never been incarcerated (Fabelo, 2002, p. 109).

Educational challenges that impact recidivism. In 2004, 36% of inmates over the age of 15 in state prisons did not possess a high school diploma or equivalent, compared to 19% of the non-incarcerated population in the U.S. (Davis et al., 2014, p. xv). The lack of education and work-ready skills factored decidedly in the success of a returning citizen's ability to become productive members of the community. The meta-analysis report commissioned by the Rand Corporation presented findings that suggested correctional education, including CTE, did reduce post-release recidivism in ways that were cost-effective and increased post-release employment outcomes for returning citizens in some studies (Davis et al., 2014). Attaining a post-secondary degree both inside and outside of prison, however, was acknowledged to be challenging.

In many higher education institutions, an applicant was required to disclose a felony offense or other criminal history on the application. Some four-year colleges that required the disclosure of a criminal history did not use the information to deny admission (Escobar et al., 2015). Colleges with policies that supported this practice assessed an individual's circumstances before determining the extent to which the

student's criminal offense and experiences dictated admission or denial of admission. However, returning citizens often gave up on the process before submitting the application, believing that the disclosure would prevent them from being accepted, and others were denied because of the disclosure. Universities could prevent both challenges by improving communication regarding the disclosure of a criminal history and how it factored into admission decisions. The Common Application for college admissions was utilized for criminal background disclosure by many four-year universities (Escobar et al., 2015).

The concept that post-release attendance on a traditional college campus was not only possible for former offenders, but that "college can be a landscape within which multiple selves develop, networks open, knowledge is contributed and developed, giving back is enabled, and the university community is enriched" was also examined (Halkovic, 2014. p. 494). A collaboration was formed between the Prisoner Reentry Institute at John Jay College and researchers to conduct an action participatory research project designed to investigate the challenges of college admissions for students with a criminal history, as well as their positive contributions to the college campus once attending. The project, titled *The Gifts They Bring*, was comprised of responses to interview questions and focus group discussions with former-offenders-turned-students. It was pointed out that even though interviewees stated that their college campus was a healthy environment where they could exhibit new behaviors and participate in social and educational growth experiences, they did not readily reveal their criminal history for fear of stigmatization. At the conclusion of the study, it was determined that colleges and universities were not always welcoming or aware of the needs of students who were transitioning from a

correctional setting to higher education. Neglect or repudiation of this student population was suggested as being achieved through non-inclusive policies and admission procedures and lack of safe spaces or support groups. However, it was recommended that higher education institutions were in a unique position to offer transformational possibilities to students who had criminal records by creating awareness and revising these very issues. By doing so, not only would the students benefit, but the college would as well (Halkovic, 2014).

Student affairs practitioners offered an overview of the issues facing formerly incarcerated students, as well as indications of successfully guiding these students as they transitioned to a college career outside the walls of a prison (Escobar et al., 2015). It was recommended that student affairs professionals endeavor to view formerly incarcerated student clients through a new lens in order to assist in their successful transition to a free-world postsecondary career. Recommendations included faculty and staff education, the creation of programs to meet the procedural and societal needs of the students and revising policies where necessary. It was concluded that community college was a palatable option for former offenders to continue or begin their college career. Many community colleges had transition programs for this student population, taking into consideration special needs such as parole check-ins, curfews, and other aspects of societal reentry that might prove difficult for the student (Escobar et al., 2015).

Inconsistency in policies at public and private four year and community colleges regarding the use of criminal history in admissions proved to be another barrier for offenders attempting to pursue postsecondary careers post-release. One disturbing, though less frequent, trend at community colleges was to deny admission not only to

individuals who were formerly incarcerated, but also to students who were on criminal justice supervision (Linton, 2011). In 2011, the U.S. Department of Education's Office of Vocational and Adult Education worked with the John Jay College's Prison Reentry Institute to publish a pre-release transition guide for offenders titled 'Back to School, A Guide to Continuing Your Education after Prison,' and in 2013 collaborated with the Vera Institute of Justice to create and implement projects designed to assist incarcerated postsecondary students in continuing their education upon release (Linton, 2011, 2013).

Some studies were conducted to examine the challenges facing returning students who wished to continue their postsecondary degrees upon release. One work was limited to offenders released from the Indiana Department of Corrections who had participated in the state's higher education program while incarcerated and opted to continue their degree pursuit post-release (Copenhaver et al., 2007). Due to the limited number of offenders who qualified and trusted the researchers enough to participate, study participants numbered only four. The purpose of the study was to investigate how released offenders continued their higher education degree obtainment on a traditional college campus, as well as how they managed any negative experiences related to the stigma of having a criminal history or financial obstacles. The qualitative study focused on interviews with former felony offenders who began their postsecondary endeavors in a correctional setting and then attempted to complete them in a traditional college setting. The interview results were examined through the lens of a sociological theoretical framework to discern how these students and their experiences were affected by the actions of others. Discussion included the premise that support groups for this population on campuses would have increased their odds of successful degree completion. Citing research that

indicated support groups may have the unintended result of singling the participants out, it was concluded that the benefits of these students having additional support that could reduce their feelings of isolation and negative self-perception outweighed any possible negativity resulting from identification. Several potential benefits of the results were outlined, including the possibility that former offenders would reevaluate their actions in hiding their criminal history from others and change their behaviors, encourage college administration and campuses to provide support for these students, and highlight areas of concern for this student population that might not otherwise be addressed or acknowledged (Copenhaver et al., 2007).

The Prison Reentry Institute published a guide for inmates considering a postsecondary career. It educated potential students on the joys and hardships of college-level work, including the earning potential of college graduates and the intrinsic benefits that they will experience. The guide offered stories by incarcerated students who had successfully navigated the college experience. Main points of the document included considerations and advice regarding vocational and academic programs, transferring credit, and paying for college. Touching on issues specific to incarcerated populations (e.g., financial aid ban for people with drug convictions), the guide served as an informational roadmap for non-traditional students that did not understand the higher education system (Crayton & Lindahl, 2015). University administrators were advised to prepare a document similar to the Back to School guide on the premise that it was not enough for a college or university to offer courses and a degree, institutions must also provide transitional services for students. The contents of the guide served as a valuable resource to students who did not have knowledge of the world outside of the prison walls

or of the higher education system. Contents included guidance on asking for help, showing appreciation, making informed decisions, how to create a portfolio of important documents, preparing for release, accessing the internet, digital citizenship, finding a GED certificate, how to use email and use it responsibly, how to find community resources, where to find free internet access and the use of a computer, goal setting, how to obtain personal documents (e.g., social security card, driver's license, birth certificate), and adjusting to life and school in the free world. Higher education and prison officials were also advised to seek assistance from successful programs and from the Prison Reentry Institute, which was established in 2005 to encourage innovation and best practice in the field of reentry (Crayton & Lindahl, 2015).

In addition to these post-release challenges, data that indicated offenders could not always fulfill their educational goals while incarcerated due to the limitations of the correctional setting was also discussed (Linton, 2013). One major challenge in student course and/or degree completion was inmate transfers between correctional facilities or work assignments that forced them to withdraw from postsecondary or CTE courses. The transition between pre and post-release education was also a key factor in post-release educational success (Contardo & Tolbert, 2008). In implementing a postsecondary correctional program, plans for how a returning citizen would continue his/her post-release education was deemed important (Brazzell et al., 2009). One of the most challenging issues facing released students was paying for tuition. The Second Chance Pell Grant only served students while they were incarcerated, and even though former offenders were often eligible for financial aid, they frequently were offered no guidance in applying. Additional issues to be addressed included lack of employment, restrictive

parole conditions, lack of savings, poor credit history, and overwhelming debt. Education was described as a valuable investment for a returning citizen but navigating the higher education system was often too daunting (Contardo & Tolbert, 2008). Partnerships between the university/college, the correctional institution, community supervision agencies, and community-based organizations were declared invaluable in keeping students in school once they were released. Local jails were described as particularly suited for community partnerships due to the fact that they were directly situated in the community. The need for these alliances was deemed great. A jail population was described as more transient than a prison's, and if a college or university was providing degree programs in a jail, the students were unlikely to be able to complete the program while incarcerated. Having a transition plan was imperative for continuity of services and graduation. Similarly, community colleges were identified as effective partners for jails since they also were situated in the community, and the odds that a returning citizen would complete a two-year degree or certification program as opposed to a four-year degree plan were much higher (Contardo & Tolbert, 2008).

Overcoming the challenges to continuing educational endeavors post-release was described as daunting for returning citizens, but research suggested that educational attainment (e.g., high school equivalent, postsecondary, and/or vocational certification) might have a positive effect on reducing recidivism (Bouffard et al., 2000; Davis et al., 2013). The Maryland Scale of Scientific Rigor, a methodology-based assessment, was created to evaluate the effectiveness of career and technical education, prison industry programs, and community-based employment programs provided to correctional populations (Bouffard et al., 2000). One evaluated research project utilizing the

assessment's set of ranking criteria spanned 15 years to determine the effectiveness of vocational education and employment programs for adult offenders on recidivism. Some educational programs evaluated included employment preparation through vocational training and industry certification, intended to increase employment opportunities post-release (Bouffard et al., 2000). There appeared to be a positive correlation between participation in correctional education, a reduction in recidivism, and an increase in the likelihood of post-release employment outcomes (Brazzel et al., 2009). It was also suggested that CTE participation decreased the number of serious incidents during confinement and improved inmate behavior, adding value to the implementation of programs for correctional institutions. In light of data such as these, education served a rehabilitative function by offering students industry certifications, employability and social skills, and fostering decision making and problem-solving expertise. Making enrollment and participation less troublesome for this specialized student population was suggested as a consideration of universities and colleges (Brazzel et al., 2009).

Reviewing Studies Regarding Correctional Education and Recidivism

There was a dearth of research on the impact of correctional education and post-release outcomes, and what studies did exist were outdated, lacking in rigor, or unfocused on specific variables that may have produced the reported outcome. Martinson's (1974) seminal meta-analysis examined the question of whether or not CTE and academic education programs positively impacted rehabilitation of an inmate and/or an inmate's odds of recidivating. It was concluded that an improvement in educational achievement did not make a significant difference in the rate of recidivism with the exception of 7% of the population with high I.Q.'s (Martinson, 1974, p. 25). The meta-analysis also

highlighted data that indicated that the greatest academic gains were made by the individuals who were incarcerated the longest (thus receiving the most services) but who were also the greatest parole-violation risks, so that the educational gains were negated by the risk factors in regards to the likelihood of returning to the system (Martinson, 1974). It was also reported that participation in vocational or career-readiness programming had no impact on improving the rate of recidivism for offenders. There was a slight difference in the recidivism rates of inmates who completed a CTE program, but the improvement was not deemed significant. The findings were qualified by a statement that it was unclear that the results were because programming itself didn't work, or whether it was the way in which CTE programs were administered (Martinson, 1974).

The lack of research was attributed in part to the fact that correctional institutions have difficulty in obtaining post-release employment data from individuals once they were released (Skardhamar & Telle, 2012). The Second Chance Act of 2007 (Public Law 110-199) was funded via the Office of Justice Programs. The legislation was enacted for the purpose of improving employment and recidivism outcomes of returning citizens. In 2010, a portion of funding was designated to conduct studies of correctional education programming in prisons, jails, and juvenile justice facilities across the country. The resulting report was a meta-analysis of published and unpublished research studies from 1980 to 2011 (Davis et al., 2013). The meta-analysis explored relationships between correctional education programs and offender outcomes. All studies focused on correctional programs in U.S. institutions. The need for high-quality research to study the effectiveness of correctional education on positive post-release outcomes was reported. Specifically, it was suggested that further studies should explore program design,

instructional delivery, and program length, ensuring that future researchers carefully isolate any causal effects of correctional education program designs (Davis et al., 2013).

There were efforts to determine the effectiveness of correctional education in relation to improved academic outcomes for incarcerated adults (Reed, 2014). Six peer reviewed studies published from January 2003 to June 2014 that focused on academic test scores, vocational test scores, and earned course credits of students enrolled in correctional education programs was conducted. The studies were coded according to the characteristics of the participants and instructors, methodological design, implemented interventions, applicable comparison conditions, and reported outcomes. It was suggested that variables such as completion of a high school equivalency certification or earning college credit were significant factors in successful societal reentry for offenders (Reed, 2015).

A statistical methodology known as a chi-square test was utilized to assess the significance of vocational training provided by correctional education programming on juvenile offender recidivism (Wilson, 1994). The purpose of this study was to explore the impact of correctional vocational programs on the rate of recidivism for 403 male juvenile offenders in Colorado. Research results indicated that the students who participated in vocational programs experienced a lower rate of recidivism than those who only participated in academic programming. The recidivism rate of students who did not participate in correctional vocational programming was 17% higher than those who did. Additional research in a juvenile setting examined the effects of correctional academic and vocational programming on recidivism and employment of students released from the Department of Correctional Education School at Natural Bridge

Juvenile Correctional Center in Virginia (Black et al., 1996). Demographic student data was collected by a transitional specialist then organized and grouped to provide an analytical platform for study. Follow up data was collected via phone calls between the specialist and the students' after-care counselor and then entered into a database. It was also suggested that participation in correctional educational programming was a determining factor in reducing recidivism, citing 76% of the study participants as having no further court involvement upon release (Black et al., 1996, p. 4).

In further research utilizing juvenile participants, there was a positive correlation between correctional education participation and an offender's likelihood of returning to the system (Meyer, Fredericks, Borden, & Richardson, 2010). The impact of postsecondary programs for youthful offenders in 38 U.S. state prisons, drawing on first year data taken from a three-year national study, with a specific focus on the efficacy of program implementation was examined. Student surveys, as well as interviews with students, staff members, and administrators and data collected from classroom observations in five states regarding program implementation were utilized. Results led to numerous recommendations on improving the efficacy of implementing postsecondary programs in correctional settings, including ensuring that students possess college-readiness skills. Another recommendation regarded integrating math and science knowledge and skills into the curriculum, and other recommendations covered a range of topics such as appropriate identification of eligible students, choosing effective site coordinators, providing incentives, and encouraging peer support (Meyer et al., 2010).

The effects of correctional education programs in Minnesota prisons between 2007 and 2008 considered whether or not the pre-release obtainment of secondary and

postsecondary degrees positively impacted recidivism or post-release employment (Duwe & Clark, 2014). Results indicated that a high school level credential earned during incarceration significantly increased an offender's opportunities for post-release employment. However, there was no significant effect on recidivism, nor was there any apparent improvement in hourly wage, the number of hours worked, or earned wages. Obtaining a post-secondary degree in prison was linked with reduced recidivism, a greater number of hours worked, and an increase in total wages even though it did not improve an offender's chances of gaining employment or increase the hourly wage they might be paid (Duwe & Clark, 2014).

Recidivism rates of released offenders in West Virginia's Huttonsville Correctional Center between the years of 1999-2000 who completed a high school equivalency certification and participated in vocational training programming were analyzed from data collected from the state's electronic database known as the Prime Time Inmate Tracking System. Data included information for offenders who had participated in academic and/or vocational programs while incarcerated but had returned to the Center after parole. Recidivism rates for vocational program completers was 8.75%, for vocational program completers who also obtained a high school equivalency certificate 6.71%, and for those offenders who did not participate in any correctional education programming, 26% (Gordon & Weldon, 2003, p. 204). Education for incarcerated persons was described as a "change agent" (Gordon & Weldon, 2003, p. 207) that not only decreased the chance of recidivism but also increased the safety of the communities in which the offender was released.

A look at in-prison vocational guidance and community assistance programs offered to non-violent offenders in an attempt to determine their effectiveness in post-release transition and lowering recidivism was initiated in Texas (Harrison and Scheher, 2004). Texas' Project RIO (Re-Integration of Offenders), and its counterpart for youthful offenders, named Project RIO-Y. Project Rio and Project Rio-Y were federally funded programs sponsored by the Texas Workforce Commission and the Criminal Justice Department. Education courses provided job-skills, employment training, and vocational assessment to inmates two years prior to their release. The RIO initiative was a successful educational program in relation to positive employment outcomes and successful community reintegration (Harrison & Schehr, 2004).

Some study findings that summarized pre-release services that introduced students to reentry preparation, life skills, and employment services indicated that these services did not improve the rate of recidivism in participants (Visher et al., 2017). It was reported that pre-release services designed to change criminogenic thinking and behavior, to improve personal relationships, and to obtain a GED promoted a modest improvement in recidivism rates. A Vera Institute of Justice study predicted that if 50% of incarcerated adults who were eligible enrolled in correctional postsecondary education, the rate of post-release employment would increase by 10% (Ositelu, 2019, p. 19). Missing in the research was a theoretical explanation of the relationship between correctional education activities, in-prison work programs, and post-release behaviors leading to recidivism (Wilson et al., 2000).

The Rand Corporation's meta-analysis report concluded that participation in any correctional education program lowered an offender's odds of recidivism by 43%, that

offenders who participated in correctional education increased their odds of obtaining post-release employment by 13%, and that offenders who participated only in academic programs increased their odds of post-release employment by 8% (Davis et al., 2013, p. 57). In an assessment of the results, it appeared that CTE participation had more of an impact on attaining employment for returning citizens than academic programming; however, the number of CTE programs studied was small, resulting in a lack of statistically significant difference between the percentage of odds for recidivating between academic and CTE programs (Davis et al., 2013).

A common theme in the reviewed literature was that further research was needed. A meta-analysis initially unearthed 4,304 articles and abstracts for study, but of these, only 28 titles were considered suitable for inclusion. Of those 28, only 18 were considered rigorous enough to be included in the final meta-analysis (Ellison et al., 2017, p. 108). The differing results from the few studies that have been conducted indicated that the value of researching how education affects incarcerated students in the U.S. was challenging. Meeting these challenges was touted as not only being able to provide valuable information to existing programs but hopefully creating a pathway for the implementation of programs in jails and prisons across the U.S. (Brazzell et al., 2009).

Theoretical Framework

This study explored questions around the impact of pre-release educational opportunities in the WSD for incarcerated individuals on post-release employment status. Three theories, one a learning theory, Constructivism, and two social learning theories, Rational Choice and Social Strain, provided the theoretical framework for this study.

Constructivism is a theoretical framework borne from Cognitivism and rooted in human development theories touted by Piaget and Vygotsky (Schunk, 2012). Cognitivism theory explains brain development in relation to an individual's ability to understand and use new information (Merriam & Bierema, 2014). Constructivism delves further into brain development by defining schema, describing how the human brain builds and implements schemas, and explaining that individuals can only possess knowledge to the extent for which they have built schemas. Cognitivism and Constructivism view the student as an active learner; however, constructivists believe that knowledge is created by the learner and that learning is more meaningful when a student is allowed to interact with a problem, idea, or concept (Schunk, 2012; Yilmaz, 2011). The Constructivist theory has been successful in helping correctional education students frame their learning (Keen & Woods, 2016). Constructivism as it is applied to learning has been described as the assumption that a learner's comprehension of the world around him is in his own mind and that the mind actively participates in helping the learner to make sense of reality (Hein, 1991). Put simply, constructivism relies on the ability of a learner to build knowledge and meaning from their own experiences (Schunk, 2012). According to the theory of Constructivism, individuals "learn to learn as they learn" (Hein, 1991, p. 3). Constructivists posit that brain structures grow when learners are active, that learning activities which are authentic encourage the most brain growth, and that learning is maximized when students make personal connections to new material (Smilkstein, 1991, 1993).

The constructivist teacher minimizes their authority as much as possible in the learning process in order to foster collaboration and cooperation, understand the learner's

reasoning, and to facilitate the learner's attempts to construct knowledge (DeVries & Zan, 2003). The idea is to give students the freedom to construct knowledge for themselves. Whereas cognitivism emphasizes the importance of memory recall, constructivists posit that recollection can be improved through re-constructed narratives and conversations about the learner's experiences (Wdlowski & Ginsberg, 2017). Constructivism encourages teaching strategies that actively engage students in building knowledge by creating personal context with the teacher, facilitating a learning environment that encourages students to construct meaning from activity and content. Instructional strategies may include cooperative learning, case studies, physical experiments, research projects, apprenticeships, flipped classrooms, and project or problem-based learning (Clark, 2018). In working with incarcerated students, the Constructivism premise of connecting learning to life experience, providing students with hands-on activities, and minimizing the authoritarian role of the teacher maximizes the opportunity for pre-release course completion. Incarcerated students have a wealth of lived experiences but often limited and/or unfavorable experiences with academia. Utilizing the Constructivism approach to teaching and learning will increase the likelihood of success in the correctional classroom. One interview subject, a man incarcerated for life as a juvenile and who was an offender, created an offender-run postsecondary program inside the correctional facility, reported that university faculty must recognize that offenders who become educated have the same need for purpose that any student possesses. One example given of a way in which instructors could improve the success of formerly incarcerated students was to be cognizant of the fact that a traditional lecture style might be viewed by these students as an authoritarian style,

bringing to mind the disparity of power an offender experiences during incarceration (Davis, 2015). By utilizing less traditional instructional methods whereby students actively participate in their learning, faculty could foster student success. It has also been suggested that instructors who build trust and relational capacity with their students could experience more success with former offenders (Davis, 2015).

In addition to learning theory, social theories may also be employed as an effective framework for this study. Traced to views of human knowledge by Plato, Rationalism is based on the idea that objects present themselves to individuals through their senses and ideas are acquired through reasoning, thus people have ideas about objects and concepts through discovery and reflection (Schunk, 2012). Rational Choice Theory and its assumptions that individuals weigh costs and benefits and means to ends as a decision-making process have been examined for many years in the study of criminology (Clarke, 1997). Originally explored by Cesare Beccaria in the late 18th century, Rational Choice Theory was empirically evaluated by Cornish and Clarke (1987) to discuss situational crime prevention. The most common use of this social theory in studying criminology is that of crime deterrence. The introduction of the theory in modern criminological studies took a quantitative approach from econometric modeling (Akers, 1990). Rational Choice Theory has been employed to examine decision-making in areas of the criminal justice system as a whole, its policies, and in specific criminal acts. Based on the economic theory that individuals will complete certain actions and make specific decisions based on a pro's and con's list of their understanding, deterrence theory follows that an individual will choose to abstain from criminal behavior due to the high consequential cost. Akers (1990) stated that "the Rational Choice Theory posits that

one takes those actions, criminal or lawful, which maximize payoff and minimize costs" (p. 654). In examining why an individual chooses criminogenic behavior, the theory's central concept of a reward/cost model suggests that in some instances, for some individuals, the immediate reward of a criminal act outweighs the possible cost.

Rational Choice Theory, as it is applied in criminology and to this study, postulates that an individual living in poverty with no education, work skills, or employment experience may weigh all economic benefits available and having assessed the potential benefits of engaging in the labor market against those of committing a crime, may see criminal behavior as the rational choice. Thus, scholars argue that criminal acts may be viewed as a form of economic behavior (Becker, 2013). If, however, these same individuals' decision-making processes were not constrained by limited ability, lack of education and vocational training, and a dearth of relevant information, would they make different choices? Would providing these opportunities through CTE offerings influence an individual to by-pass criminal behavior in favor of gainful employment?

Social Strain Theory assists in describing and understanding the pressure of being confined in a carceral setting. An examination of social strains such as potential victimization, living in a hostile environment, and relationships with fellow inmates and correctional staff was conducted in an effort to understand any relationship between these strains and recidivism. The results indicated that unsuccessful reentry was much higher amongst former offenders who were unemployed and who described their time of confinement as fearful or threatening (Listwan, Sullivan, Agnew, Cullen, & Colvin, 2013). Psycho-social strain has been described as the actual or expected failure of an

individual to reach positive goals, the removal of positive stimuli, and the introduction of negative stimuli (Slocum, Simpson, & Smith, 2005). The basic assumption that the presence of one, two, or all three of these variables could trigger a criminogenic lapse for a former offender should give correctional practitioners reason to consider the importance of appropriately preparing individuals for post-release success. Lacking the skills and/or social network to attain viable employment places a returning citizen at greater risk of re-offending (Davis, et al., 2013). By providing meaningful activities for inmates such as CTE and academic instruction, correctional officials can not only reduce the social strain of inmates during confinement, but the social strain of being unable to attain gainful employment once released and possibly reducing recidivism.

Learning theories bridge the gap between research and education (Schunk, 2012). It has also been posited that social learning theories bridge the gap between cognitive and behavioral learning theories (Bandura, 1971). Constructivism learning theory provides a foundation for extending existing knowledge of how incarcerated learners can be most successful in the classroom, and Rational Choice Theory provides a framework to possibly explain, predict, and understand if those learning experiences impact post-release decision-making in the realm of employment status and subsequent recidivism. Also viewing this study through the lens of Social Strain Theory allows researchers and practitioners to consider the idea that prisons and jails can better serve individuals in custody by creating a non-threatening environment that focuses on rehabilitation and career preparation rather than one that is fearful and focused on punishment (Slocum et al., 2005).

CHAPTER III

Research Methodology

Chapter III will discuss aspects of the research methodology for data collection and analysis employed for this study. Included in this discussion will be a description of the population sample, the validity and reliability of data collection, and any limitations that may exist. Three questions formed the basis of exploration for this study.

Research Questions.

This quantitative study explored three research questions about WSD students:

1. What relationship, if any, is there between offenders earning an industry certification in CTE courses during incarceration and post-release employment status?
2. What relationship, if any, is there between offenders who complete a CTE course but do not earn certification during incarceration and post-release employment status?
3. What relationship, if any, is there between offenders who participate in a CTE course during incarceration but neither complete the course nor earn certification and post-release employment status?

These questions were explored in an effort to determine the impact (or non-impact) of CTE programming on post-release outcomes for returning citizens.

A non-experimental, between-subjects factorial design was employed to explore the relationship, if any, between independent variables (WSD students who completed a CTE course and earned an industry certification, WSD students who completed a CTE course but did not earn certification, and WSD students who participated in CTE but neither completed a course nor earned certification) and a dependent variable of post-

release employment status (employed and retained, employed but not retained, full-time student, unemployed, and never employed).

Statistical Assumptions

The assumptions for the Chi-square test include having two variables that are ordinal or nominal scaled (i.e., categorical data.), two variables consisting of two or more categorical, independent groups (independence of observation) and no more than 20% of the expected cell counts are less than five and all expected counts are one or greater (Moore, Notz, & Fligner, 2013). This study consists of three independent variables that are nominally scaled. WSD students who completed a CTE course and earned an industry certification, WSD students who completed a CTE course but did not earn certification, and WSD students who participated in CTE but neither completed a course nor earned certification will each be categorized as yes or no. These independent variables were compared to data regarding student post-release employment status, which was categorized as either employed and retained, employed but not retained, full-time student, unemployed, or never employed. To test the final assumption, no more than 20% of the expected cell counts were less than five, and expected counts were one or greater.

Population and Sample

Established in 1848 by the 2nd Texas Legislature, the Texas Department of Corrections admitted the first prisoner in 1849. In 1989, the TDCJ and the Board of Criminal Justice were created. The TDCJ has oversight of criminal offenders in facilities that include state jails and prisons, as well as contracted private facilities. The agency is also tasked with oversight of community supervision and all offenders who are released on parole or mandatory supervision (Texas State Library and Archives Commission,

2019). WSD students are chosen from the TDCJ population in state prisons and jails and Substance Abuse Felony Punishment facilities. Participants for this study are WSD students/TDCJ inmates who were enrolled in WSD CTE courses in school years 2011-2013. TDCJ Population data for years 2011, 2012, and 2013 are represented in Table 2. The *number of inmates on hand* represents the number of inmates incarcerated in TDCJ facilities (e.g., prisons, state jails, and Substance Abuse Felony Punishment facilities) on August 31 of each year. The data are details regarding the inmates on hand August 31.

Table 2

TDCJ Population Data 2011-2013

	2011	2012	2013
Number of Inmates on Hand	156,522.0	152,303.0	150,784.0
Average Age of Inmates	37.5	37.8	38.0
Average Educational Achievement Level of Inmates	8.1	8.1	8.2
Number of HSD/GEDs Earned While Incarcerated	12,403.0	13,903.0	13,013.0
Number of Inmates Released	70,911.0	77,316.0	72,071.0

Note. Educational Achievement levels are equivalent to common public-school achievement levels by year and month as measured by the Test of Adult Basic Education (e.g., 8.1 = 1st month of 8th grade). Table data adapted from “TDCJ Statistical Report Fiscal Year 2011, 2012, 2013,” by Texas Department of Criminal Justice, 2011, 2012, 2013.

WSD students were drawn from the overall TDCJ population, as prioritized per their ITP. The average number of offenders per year incarcerated in TDCJ facilities was 153,203. The WSD served an average of 61,500 of those individuals each year in school

years 2011-2013. WSD student information for school years 2011-2012 and 2012-2013 is provided in Table 3.

Table 3

WSD Student Information for School Years 2011/2012 and 2012/2013

School Year	Total Number of Students	Average Age of Students	Average Educational Achievement Level of Students	Number of Industry Certifications Earned	Number of Students Enrolled in Full-Length CTE Courses
2011/2012	63,000	32	6.0	5,643	9,901
2012/2013	60,000	33	6.0	5,595	9,377

Note: The WSD reported the number of students in school year 2012/2013 as “more than 60,000” (Windham School District, 2012). Table data adapted from “Windham School District Annual Performance Report, 2011, 2012” by Windham School District, 2011, 2012.

The target population of this study is defined as offenders (e.g., individuals incarcerated in prisons, state jails, and Substance Abuse Felony Punishment facilities) who participated in a WSD CTE course, completed a WSD CTE course, and/or earned an industry certification and who were released from the custody of the TDCJ on supervision during school years 2011-2013 for whom employment status data was reported. To determine the smallest sample size that is suitable to detect the effect of a given test at the desired level of significance, a 95% confidence level with a 5% margin of error was calculated with an online sample size calculator. According to those calculations, the ideal sample size for this study would be at least 233 participants (<http://www.calculator.net/sample-size-calculator>).

Data Sources

Upon requesting data from the WSD, district leadership suggested reviewing participants that were released in school years 2011-2013 because the district possessed post-release employment data for a three-year period for those individuals, offering a robust view of post-release employment activity. Using existing data collected through the WSD Department of Operational Support, it was possible to analyze the relationship between variables. Received data was divided into students who were enrolled in a CTE course, completed a CTE course, and/or earned an industry certification. Regarding post-release employment status data, WSD had available data for students who were released from TDCJ on supervision during school years 2011-2013 for three years post-release, beginning on the first day of release. Archival data was requested from the WSD for all students released on supervision in school years 2011-2013 who participated in a CTE course, completed a CTE course, and/or earned an industry certification during their incarceration.

Data Analysis Plan

The ability to examine relationships between pre-release CTE participation, completion, and certification and post-release employment status for TDCJ inmates who were WSD students could impact future programming decisions for correctional educators and agencies. When comparing relationship variables that are nominal, the Chi-square test of independence can be employed to describe associations in a sample population (McHugh, 2013).

The Chi-square test of independence, which is also known as the Pearson Chi-square test, is a practical statistic for testing hypotheses when using nominal variables. In

this study, the Chi-square was employed to provide information regarding the significance of any differences between variables and details on which categories accounted for any found differences.

Assumptions for the Chi-square test include random sampling, the use of nominal or ordinal variables, the data in the cells are counts, not percentages, there are two variables that are nominal (categorical), the value of cells should be five or more in no less than 80% of the cells, and no cell should have a count that is less than one (McHugh, 2013). This study consisted of three independent variables that were nominally scaled: WSD students who completed a CTE course and earned an industry certification, WSD students who completed a CTE course but did not earn certification, and WSD students who participated in CTE but neither completed a course nor earned certification. Each was categorized as yes or no. These independent variables were compared to data regarding student post-release employment status, which was categorized as either employed and retained, employed but not retained, full-time student, unemployed, or never employed. To test the final assumption, no more than 20% of the expected cell counts were less than five, and expected counts were one or greater.

Procedures

Requested data retrieved from the WSD was extracted into Excel spreadsheet files, allowing for re-tabulation or coding prior to analysis. The data was then imported into SPSS for analysis. In the analysis, the variables of CTE course participation, course completion, and earned industry certifications were entered as predictors, with employment status as an outcome.

No personal identifying data was made public as part of the final study. In the retrieved data, students were identified only by an identification number assigned by the WSD, and these were retained only for the purposes of linking multiple records pertaining to a given student. All source data was entered according to all official procedures outlined by the University and in accordance with the Data Privacy Act to ensure the accuracy, validity, and confidentiality of student data. All data was stored on a password protected file server to be destroyed no later than one year after project completion.

All received data was divided into categorical groups: CTE participation (yes or no), CTE completion (yes or no), and industry certification (yes or no). These independent variables were compared to data received regarding student post-release employment status, which was categorized as employed and retained, employed but not retained, full-time student, unemployed, and never employed and served as the dependent variable.

All data were entered into the Statistical Package for Social Sciences (SPSS) program, which is compatible with the archival data format used by the WSD. A Chi-square test of independence was conducted to determine what relationships were present.

Assumptions, Limitations, and Delimitations

The primary goal of this study was to explore the relationship between CTE instruction prior to release and the employment status of participating students once released. Generalizing the results of this study, however, should be made with caution given some limitations and delimitations.

The uniqueness of the district's structure and its programs pose limitations to be considered when interpreting the results of this study. Further limitations in generalizing include the homogenous aspect of all participants being in one state, one organization, and participating in similar discipline areas. It is also worthy to note here that in a correctional environment, the host facility's warden can widely influence the ability to implement any program with fidelity, thus students may have similar opportunities to participate in programming across the state but may not have equal access. All instructional and student certification data was reported by instructors across the state, and post-release data was reported by parole officers, offering the opportunity for reporting errors, and post-release data was only available for students who left confinement on supervision.

The researcher acknowledges the possibility of bias based on unique knowledge of the WSD's operations and analysis of their CTE programs that could offer delimitations to the research. The researcher was employed by the district to, in part, design and lead strategies and activities to implement reforms in the area of CTE programming in 2015. No longer in a position with the district, the researcher mitigated this limitation by focusing the study on a period of programming prior to her employment with the WSD and prior to the reforms that began in 2015.

The researcher made the following assumptions: (a) WSD instructors reported instructional and certification data accurately, (b) TDCJ parole officers reported post-release employment data accurately, and (c) WSD administration reported all entered data accurately.

Definitions of Terms

The researcher has chosen to define the following terms for clarification. Additional terms may also be defined in the literature review, where sources of the definitions will be cited.

Career and Technical Education (CTE). Training for specific vocations, including employability soft skills, technical skills, and general career-readiness topics (Davis et al., 2013).

Correctional education. Academic or vocational programs offered to incarcerated individuals (Davis et al., 2013).

Employed and retained. For the purposes of this study, an individual who was employed within the first year of release from TDCJ and employed one year after the initial employment.

Employed but not retained. For the purposes of this study, an individual who was employed within the first year of release from TDCJ but no longer employed one year after the initial employment.

Full-time student, unemployed. For the purposes of this study, an individual who was unemployed in the first year of release from TDCJ because they were enrolled in school full-time.

Inmate/offender. An individual who has been sentenced by the criminal justice system and who is serving their court-ordered appointed time of incarceration (Texas Department of Criminal Justice, 2011, 2012, 2013).

Never employed. For the purposes of this study, an individual who was not employed within the first year of release from TDCJ.

Postsecondary education (PSE). Instruction that is college-level and offers credit toward a two or four-year postsecondary degree or certification (Davis et al, 2013).

Recidivism. Because recidivism may be defined in various ways, this study utilized the definitions of recidivism as re-arrest, reconviction, re-incarceration, and parole violations (Bouffard et al., 2000).

Returning citizen. An individual who has completed the requisite length of confinement as mandated by a court-order and is transitioning back to society as a free citizen or a citizen on supervision (Yates, 2015).

Chapter IV

Results

This chapter contains the results of a quantitative study conducted to answer three research questions (a) what relationship, if any, is there between offenders earning an industry certification in WSD CTE courses during incarceration and post-release employment status, (b) what relationship, if any, is there between offenders who complete a WSD CTE course but do not earn certification during incarceration and post-release employment status, and (c) what relationship, if any, is there between offenders who participate in a WSD CTE course during incarceration but neither complete the course nor earn certification and post-release employment status?

This study was designed to explore the relationship, if any, of correctional CTE program outcomes on an individual's ability to successfully attain and retain employment once released to the community. For purposes of this study, post-release employment was categorized as (a) *employed and retained*, (b) *employed but not retained*, (c) *full-time student, unemployed*, and (d) *never employed*. Chapter Four presents the results of the data analysis conducted for this study. Using a chi-square test of independence, it was possible to evaluate whether or not the identified variables were associated.

Population and Sample Characteristics

This study contained a sample ($n = 105,647$) of offenders who were released on supervision from TDCJ custody in school years 2011-2013 for whom employment data was reported and who participated in WSD CTE programs at some point during their incarceration. Specifically, this study focused on analyzing any relationship between CTE participation outcomes and post-release employment among released offenders. Post-

release employment status was the dependent measure in this study, and measures that examined the level of outcomes of student CTE participation were treated as possible predictors of successful attainment and sustainment of employment once an offender was released. To examine the observed empirical relationship between employment status and offenders' CTE participation-related factors, data were analyzed using the SPSS version 26.0. A Chi-square test of independence was calculated for primary variables in this study to see if statistically significant associations existed between CTE participation outcomes and post-release employment status. All requested data was de-identified by WSD prior to receipt. In lieu of providing participant names, WSD assigned a pseudo identification number to each individual participant. These identification numbers were cross-referenced across multiple data lists.

In order to examine any possible relationship between student participation and classroom outcomes and post-release employment outcomes, it was necessary to first identify what CTE participation outcomes actually were. The WSD offered CTE completion and participation awards in three ways. If an inmate was enrolled in a CTE course that culminated in a third-party, industry-recognized certification, successfully completed the training course, and passed the industry certification assessment, then the individual received a nationally recognized industry certification. Students in this category were denoted in the archival data as *Industry Certifications*, and there were 6,396 ($n_{certified} = 6,396$) of them. *VCERT* was the data designation for inmates who completed a CTE course, but either did not earn an industry certification or were enrolled in and completed a course that did not offer industry certification. Of the sample population ($n = 105,647$), 25,988 ($n_{vcert} = 25,988$) students earned a WSD certificate of

completion. Inmates who enrolled and participated in a CTE course but failed to complete it or earn an industry certification were coded as *VPART*. There were 14,833 ($n_{vpart} = 14,833$) inmates of the total sample population ($n = 105,647$) that received participation certificates.

Post-release employment data was provided by the WSD via parole records for every anonymized offender in the sample. Participants of the sample population were released within school years 2011-2013. Employment data was provided for a three-year period beginning the first day of each participant's release. In the course of three years, data indicated that an individual could have had several employment experiences, vacillating between being employed and unemployed, and in many cases frequently changing jobs. Four categories of employment status emerged in analysis. For the purposes of this study, employment data was examined from the first day of release to the last day of the first year after an initial employment experience. Either an individual was employed within the first year of release and remained employed one year from the initial date of employment, or an individual was employed within the first year of release and was unemployed one year after the initial employment date, or an individual was unemployed in the first year of release because they were a full-time student, or an individual was never employed in the first year of release. For purposes of this study, these variables were identified, respectively, as (a) *employed and retained*, (b) *employed but not retained*, (c) *full-time student, unemployed*, and (d) *never employed*.

Analysis indicated that there were 30,815 ($n_{missing} = 30,815$) missing cases. Upon investigation, the missing data was identified as a lack of employment data for 30,815 ($n_{missing} = 30,815$) participants. The WSD provided parole employment data for inmates

who had been enrolled in a CTE course and were released to their communities in school years 2011-2013. The total number of these records was 136,462 ($n_{records}=136,462$); there were, however, CTE participants who did not have valid employment data. Once the 30,815 ($n_{missing}=30,815$) missing cases were removed, the total population sample that was valid for analysis was 105,647 ($n=105,647$).

Findings

A Chi-square independence test evaluates whether or not two categorical variables in a population are associated. This study was designed to explore any association between participants' CTE course outcomes and post-release employment status. Utilizing the Chi-square test of independence, each independent variable was analyzed to determine if any relationship existed between it and the dependent variable of post-release employment status.

Table 4 represents the variable of participants who completed a CTE course and earned an industry certification and any possible relationship with post-release employment status. Of the total sample population ($n = 105,647$), 99,251 ($n_{non\ certified} = 99,251$) participants did not earn an industry certification. Of those, 1,848 were employed and retained, 59,494 were employed but not retained, 2,459 were full-time students and thus unemployed, and 35,450 were never employed in their first year of release. There were 6,396 participants ($n_{certified} = 6,396$) who completed the requisite industry-certification CTE course and did earn an industry certification. Of those, 106 were employed within their first year of release and were still employed one year after the initial employment, 4,488 were employed within the first year but were no longer employed one year later, 251 were unemployed in the first year of release because they

were enrolled as full-time students, and 1,551 of these participants were never employed in their first year of release. Using the Chi-square test of independence, a correlation analysis of students who earned an industry certification and completed a CTE course while enrolled in the WSD and their post-release employment status indicated a statistically significant relationship between these variables, $\chi^2(3, n = 105,647) = 379.776, p = .000$.

Table 4

Industry Certifications and Employment Status

Industry Certification	Employed and Retained	Employed but Not Retained	Full-Time Student, Unemployed	Never Employed
No	1,848	59,494	2,459	35,450
Yes	106	4,488	251	1,551

Note: $n = 105,647$

Table 5 shows the variable of participants who completed a CTE course but either did not earn an industry certification or completed a CTE course that did not offer an industry certification. These participants earned a WSD certificate of completion, denoted as a *VCERT* by WSD. Of the total sample population ($n = 105,647$), 79,659 ($n_{no\ vcert} = 79,659$) participants did not earn a certificate of completion. Of those, 1,525 were employed and retained, 46,561 were employed but not retained, 1,819 were full-time students and thus unemployed, and 29,754 were never employed in their first year of release. There were 25,988 ($n_{vcert} = 25,988$) participants who completed a CTE course and earned a certificate of completion. Of those, 429 were employed within their first year of release and were still employed one year after the initial employment, 17,421

were employed within the first year of release but were no longer employed one year after the initial employment, 891 were enrolled as full-time students and thus coded as unemployed, and 7,247 of participants who earned a certificate of completion were never employed in their first year of release. Using the Chi-square test of independence, a correlation analysis of students who earned a certificate of completion by completing a CTE course while enrolled in the WSD and their post-release employment status revealed a statistically significant relationship between these variables, $\chi^2(3, n = 105,647) = 847.261, p = .000$.

Table 5

CTE Course Completion (VCERT) and Employment Status

VCERT	Employed and Retained	Employed but Not Retained	Full-Time Student, Unemployed	Never Employed
No	1,525	46,561	1,819	29,754
Yes	429	17,421	891	7,247

Note: n = 105,647

Table 6 presents the variable of participants who participated in a CTE course during their confinement but neither completed the course nor earned an industry certification. These participants were given a WSD certificate of participation, denoted as a *VPART* by WSD. Of the total sample population ($n = 105,647$), 90,814 ($n_{no\ vpart} = 90,814$) participants did not earn a certificate of participation. Of those, 1,712 were employed and retained, 54,670 were employed but not retained, 2,248 were unemployed full-time students, and 32,184 were never employed in their first year of release. There were 14,833 ($n_{vpart} = 14,833$) participants who were denoted as having been given a

certificate of participation. Of those, 242 were employed within their first year of release and were still employed one year after the initial employment, 9,312 were employed within the year but were no longer employed one year later, 462 were enrolled as full-time students and thus coded as unemployed, and 4,817 were never employed in their first year of release. Using the Chi-square test of independence, a correlation analysis of students who neither completed a CTE course nor earned a certification while enrolled in the WSD and their post-release employment status revealed a statistically significant relationship between these variables, $\chi^2(3, n = 105,647) = 70.749, p = .000$.

Table 6

CTE Course Participation (VPART) and Employment Status

VPART	Employed and Retained	Employed but Not Retained	Full-Time Student, Unemployed	Never Employed
No	1,712	54,670	2,248	32,184
Yes	242	9,312	462	4,817

Note: $n = 105,647$

Tables 7 and 8 summarize the percentage of participants in each categorical variable and the percentages of participants represented in each of the categories of CTE outcomes. Of the three independent variables presented in this study, more students earned a certificate of completion (25,988) than an industry certification (6,396) or a certificate for participation (14,833). In considering the total sample population ($n = 105,647$), 6% of participants completed a CTE course and earned an industry certification, 14% participated in a CTE course but did not complete it or earn a

certification (*VPART*), and 25% completed a CTE course and earned a certificate of completion (*VCERT*).

In reviewing employment status outcomes, the highest occurrence of participants who earned an industry certification, certificate of completion, or a certificate of participation and went the entire first year of their release without attaining employment was for those who neither completed a CTE course nor earned a certification (32%). The percentage of these same participants who were employed within the first year of release and were still employed one year after the initial employment was the same (2%). Participants who earned an industry certification represented the highest percentage of individuals who were employed in the first year of release but were not employed 12 months later (70%).

The percentage of participants who did not earn an industry certification and were *never employed* was higher (36%) than those who did earn an industry certification (24%). However, earning an industry certification yielded a higher percentage of being employed but not retained (70%) than not earning one (60%). This was a similar result for individuals in the completion certificate category. The percentage of participants who completed a CTE course but did not earn a certification and were *never employed* was higher (37%) than those who did earn a certificate of completion (28%), and completing a course without earning a certification yielded a higher percentage of being *employed but not retained* (67%) than not earning a certificate of completion (58%). For those participants who participated in a CTE course but neither completed it nor earned a certification, the percentage for those who were *never employed* was 35% for the *No* category and 32% for the *Yes* category. For individuals who were employed but not

retained, the percentage in the *VPART No* category was 60% and in the *VPART Yes* category, it was 63%. Participants who were unemployed during their first year of release because they were attending school full-time represented a range of 2% - 4% in all categories.

Table 7

Summary of Percentage of CTE Participation Outcomes Compared to Employment Status

Variable	<i>n</i>	Employed and Retained	Employed but Not Retained	Full-Time Student, Unemployed	Never Employed
		%	%	%	%
Industry Certification No	99,251	.02	.60	.02	.36
Industry Certification Yes	6,396	.02	.70	.04	.24
VCERT No	79,659	.02	.58	.02	.37
VCERT Yes	25,988	.02	.67	.03	.28
VPART No	90,814	.02	.60	.02	.35
VPART Yes	14,833	.02	.63	.03	.32

Note: Total of percentages is not 100 because of rounding.

Table 8

Summary of Percentage of CTE Participation Outcomes

Variable	<i>n</i>	%
Industry Certification	6,396	.06
VCERT	25,988	.25
VPART	14,833	.14

Note: $n = 105,647$

Post hoc analyses were then conducted to determine precisely where statistically significant relationships existed across the data. Each post-release employment category was analyzed sequentially and compared to the other post-release employment categories to determine if groupings of students who earned an industry certification, completed a CTE course but did not earn a certification, and neither completed a CTE course nor earned a certification had a statistically significant relationship to each post-release employment category. To accomplish this, z scores were calculated for all variables using the adjusted residual function in SPSS's cross tabulation command function. The resulting z scores suggested the existence of a statically significant relationship for normally distributed data when the adjusted residual was above $|1.96|$ and are listed in Table 9.

Table 9

Z Scores and Chi Squared Coefficients for CTE Participation Outcome and Post-Release Employment Data

Variable	Employed and Retained		Employed but Not Retained		Full-Time Student, Unemployed		Never Employed	
	Z Score	Chi ²	Z Score	Chi ²	Z Score	Chi ²	Z Score	Chi ²
Industry Certification Yes	1.20	1.44	16.22	263.08	7.09	50.27	18.63	347.08
Industry Certification No	-1.20	1.44	-16.22	263.08	-7.09	50.27	-18.63	347.08
VCert Yes	2.73	7.45	24.58	604.18	10.14	102.82	27.77	771.17
VCert No	-2.73	7.45	-24.58	604.18	-10.14	102.82	-27.77	771.17

VPart Yes	2.12	4.49	6.00	36.00	4.56	20.79	7.01	49.14
VPart No	-2.12	4.49	-6.00	36.00	-4.56	20.79	-7.01	49.14

Note: $\text{Chi}^2 = \text{Chi squared coefficient}$

Next, z scores were squared to produce a Chi Square coefficient for any relationship between each CTE participation outcome variable and the post-release employment variable. Chi Square values are also included in Table 9. Finally, p -values were calculated for each variable by dividing the Chi Square significance function in SPSS and a degree of freedom equal to 3. While the aforementioned adjusted residuals could be used as guides for examining statistically significant relationships, p -values are a more refined statistic. The standard p -value of 0.05 was adjusted for the likelihood of a Type 1 error, resulting in an adjusted p -value of 0.0125. Any p -value above this level was considered not statistically significant and not used in additional analyses such as odds ratios calculations. All p -values were less than 0.0001, at minimum. Earning an industry certification had a statistically significant relationship with being employed within the first 12 months of release but not retained a year later, being enrolled as a full-time student, and never being employed for the three-year examination period. Completing a CTE course but not earning a certification had a statistically significant relationship with being employed within the first 12 months of release but not retained a year later, being enrolled as a full-time student, and never being employed for the three-year examination period. Finally, participating in a CTE course but neither completed it nor earning a certification had a statistically significant relationship with being employed within the first 12 months of release but not retained a year later, being enrolled as a full-time student, and never being employed for the three-year examination period. In summary, all

CTE participation outcomes were related to all employment categories except for long-term employment beyond a year after release.

Those data that exhibited a statistically significant relationship were examined to develop odds ratios for easier understanding of the data. Data were collapsed into two dichotomous variables of employed (attaining employment within 12 months of release) compared to unemployed (anyone who was unemployed due to enrollment as a full-time student or was never employed in the first 12 months of release). As seen in Table 10, a further examination of the association between each CTE participation variable and participants who were employed within the first 12 months of release, participants who earned an industry certification were 1.58 times more likely to be employed in the first 12 months of release than to be unemployed. WSD students who completed a CTE course but did not earn a certification were 1.44 times more likely to be employed in the first 12 months of release than to be unemployed, and students who participated in a CTE course but neither completed the course nor earned certification were 1.11 times more likely to be employed in the first 12 months of release than to be unemployed. The increased odds of participants in each CTE participation outcome being employed in the first 12 months of release did reach statistical significance ($p < .0001$).

Table 10

Odds Ratio for CTE Participation Outcomes and Employment Status

Variable	OR	95% CI	Employed	Unemployed
			<i>n</i>	<i>n</i>
Industry Certification Yes	1.58	[1.49-1.67]	4,594	1,802

VCERT Yes	1.44	[1.40-1.48]	17,850	8,138
VPART Yes	1.11	[1.07-1.15]	9,554	5,279

Note. OR = odds ratio; CI = confidence interval.

Summary of Results

A review of the initial research questions and analysis of received data can offer practitioners and researchers insight into programming implications and possible future research. This study examined three research questions (a) what relationship, if any, is there between offenders earning an industry certification in WSD CTE courses during incarceration and post-release employment status, (b) what relationship, if any, is there between offenders who complete a WSD CTE course but do not earn certification during incarceration and post-release employment status, and (c) what relationship, if any, is there between offenders who participate in a WSD CTE course during incarceration but neither complete the course nor earn certification and post-release employment status?

The data met the assumption for the Chi-square test of independence of all expected frequencies be greater than five, indicating that the significance test for which the Pearson Chi-square was conducted was reliable. The analysis results from the Chi-square test of independence indicated that an association between each of the specified WSD CTE outcomes and post-release employment status was observed.

A Chi-square test of independence was performed to examine the relationship between offenders who earned an industry certification in WSD CTE courses during incarceration and their post-release employment status. The relationship between these variables was statistically significant, $\chi^2(3, n = 105,647) = 379.776, p = .000$. A Chi-square test of independence was performed to examine the relationship between

offenders who completed a WSD CTE course but did not earn certification during incarceration and their post-release employment status. The relationship between these variables was statistically significant, $\chi^2(3, n = 105,647) = 847.261, p = .000$. A Chi-square test of independence was performed to examine the relationship between offenders who participated in a WSD CTE course during incarceration but neither completed the course nor earned certification and their post-release employment status. The relationship between these variables was statistically significant, $\chi^2(3, n = 105,647) = 70.749, p = .000$.

Conclusion of Results

Identifying an observable association between the independent and dependent variables was a result that could offer guidance to correctional educators and agencies in examining current programming and planning further implementation of CTE programs. It could also be the impetus to suggest further exploration for researchers. Chapter Five will discuss the results of the study and possible implications of findings in order to suggest future topics for researchers and policy recommendations for practitioners.

Chapter V

Discussion, Implications, and Recommendations

This study was designed to explore the impact of correctional CTE program outcomes on an individual's ability to successfully attain and retain employment once released to the community. This chapter presents a discussion of the analysis results and what those results mean in the view of a correctional educator. Chapter five also discusses the implications of the study to correctional education programming efforts, not only for correctional educators, but also for professionals working in and leading correctional institutions. Future research efforts that may be of benefit to practitioners and researchers will be suggested, and finally, this chapter includes policy recommendations based on the review of literature and the results of this study.

Discussion

As seen in the reviewed literature, post-release employment is an essential indicator of successful reentry and reintegration for individuals who have been formerly incarcerated (Ositelu, 2019; Pompoco et al., 2017). There are a number of studies that examine recidivism and its possible causes, but there is a dearth of research that focuses specifically on the role post-release employment or unemployment may play in contributing to an individual's return to the criminal justice system. Furthermore, there are even fewer studies that focus on the impact that correctional education might play in whether or not an individual can attain or sustain employment once released (Davis et al., 2013; Skardhamar & Telle, 2012). This study supports these findings from the reviewed literature. Having and keeping a job is one protective factor in discouraging criminogenic behavior. An incarcerated individual must attain the training necessary to get hired for

jobs that provide a living wage, and correctional agencies must offer vocational programming that yields positive post-release employment results.

In exploring possible outcomes of CTE programming in the WSD, three methods of measurement became apparent. The school district identified CTE student outcomes as (a) individuals who enrolled in a CTE course that culminated in an industry certification and who earned the specified certification, (b) students who enrolled in and completed a CTE course but did not earn an industry certification, and (c) individuals who enrolled in a CTE course and participated for a period of time but did not complete the course and did not earn a certification. These programming outcomes served as the independent variables in this study, and post-release employment status served as the dependent variable.

Post-release employment data provided insight into the course of a returning citizen's journey to attaining and sustaining employment. In examining three years of employment activity, it was apparent that some individuals were employed, unemployed, re-employed, etc. numerous times throughout the three-year period. Some were not employed until the end of the three-year reporting period, others were employed immediately upon release then unemployed a short time later, some had as many as 10 employment experiences in the reporting period, and others may have never been employed.

The lack of research on the impact of correctional education and post-release employment status has been attributed in part to the fact that correctional institutions have difficulty in obtaining post-release employment data from individuals once they are released (Skardhamar & Telle, 2012). WSD was able to provide post-release employment

data the district had received from TDCJ's parole division, but district leadership suggested that the data was not necessarily accurate. Post-release data was reported only for individuals who were released on supervision during school years 2011-2013. The provided data included a pseudo identification number for each participant, dates of employment for each employment experience, and a description of the type of job that parole officers could choose from a drop-down box in the electronic reporting system utilized by the division. There were 30,815 individuals with missing fields of entry (e.g., no employment data, no employment date, invalid employment date), leaving a total sample population of 105,647 ($n = 105,647$) individuals as participants for study.

One outcome examined in this study was the attainment of industry certification. Industry certifications are nationally recognized credentials, and recipients must have passed a certification assessment in order to attain them. Examples include the National Center for Construction Education and Research (NCCER), the national Automotive Service Excellence (ASE) certification, American Welding Society (AWS), and certification from the Occupational Safety and Health Administration (OSHA). The advantages of leaving jail or prison with one of these certifications include having the necessary training to attain and perform a job, possessing an industry certification that is required for job-entry, and providing evidence of proficiency that is acknowledged by a specific industry as opposed to having a paper certificate of completion issued by a correctional agency. Of the sample population ($n = 105,647$), only 6% earned an industry certification. Of those 6,396 participants ($n_{certified} = 6,396$), 106 were employed and retained as opposed to 4,488 who were unemployed 12 months after their initial employment date, and 1,551 of these participants were never employed in the first year of

release. There were 251 participants who earned an industry certification who were unemployed because they were enrolled as a full-time student, but there is no data to indicate if these participants were continuing in the same field of study as the earned certification. Of the total sample population ($n = 105,647$), 1,848 participants did not earn the industry certification offered but were still employed one year after initial employment, which might indicate that earning the certification did not necessarily improve employment outcomes. However, 59,494 participants who did not earn the offered certification were categorized as *employed but not retained*. In comparing this number with the 4,488 participants who earned an industry certification in the same employment category and the result that 35,450 participants who did not earn an industry certification were never employed versus 1,550 participants who did earn a certification, earning an industry certification while incarcerated is promising as it relates to post-release employment attainment, but perhaps not in sustained employment. These results indicate that former offenders with an industry certification were more likely to be employed within the first year of release than their counterparts, but less likely to be retained 12 months later.

The number and percentage of study participants who earned an industry certification was small in comparison to the total sample population (6%). Of the three CTE outcomes examined in this study, students who received a WSD certificate of completion represented the largest percentage (25%). It is unclear, with the provided data, if the number of participants in this category is larger because the district emphasized completion over certification, whether there were fewer courses offered that culminated in industry certification (e.g., lack of instructors, lack of financial resources to

pay for certifications, perceived lack of importance), or whether participation was student-centered (e.g., student interest, length-of-stay limitations, eligibility). One indicator that WSD emphasized CTE course completion over the attainment of industry certification can be found in the district's annual report where one element on which CTE programming is based is listed as the opportunity to earn a WSD certificate of completion with an *option* to earn an industry recognized occupational certificate or license (Windham School District, 2012). The larger number of participants in this category could also be explained by inmates wishing to fill their leisure time instead of focusing on a specific career pathway.

As opposed to an industry certification that is awarded by a nationally recognized organization, students in the category of completing a WSD CTE course received a local certificate issued by the district in recognition of the student's course completion. These certificates offer a student with evidence of having completed a course but also identify the individual as a former offender to employers. CTE courses may include a variety of topics, not all of which are job-training programs. Some, for instance, may offer employability soft skill instructions, others may provide general technology practice such as learning to use a keyboard, or some courses offer the opportunity for career exploration. Further studies about the different types of CTE certification categories might be beneficial. Research may find that earning a paper completion certificate awarded by a prison or jail is not as helpful as a nationally-recognized industry certification.

As with the results for participants who earned an industry certification, the percentage of students who completed a CTE course in the category of *employed and*

retained was the same as for those who did not complete a CTE course (2%) and identical to the percentage of participants who earned and did not earn an industry certification in the same employment category (2%). Participants who earned a certificate of completion versus those who did not were less likely to be employed 12 months after their initial employment experience but more likely than their counterpart to have had some employment experience in the first year of release. Based on the findings of this study that indicate a relationship between earning an industry certification and employment status, a study of the possible linkage between the types of training, the kind of certification, and the specific type of job a former offender attains should be conducted. Correctional educators should offer courses that culminate in industry certification then provide inmates with the means to apply for and secure jobs within that industry.

In the reviewed literature, there was some discussion of whether or not the benefits of CTE participation or course completion without industry certification extended beyond the prison walls into the post-release workforce (Brewster & Sharp, 2002; Davis et al., 2013; Ward, 2009). Participation in correctional education in general was considered to have a positive impact on recidivism (Davis et al., 2013; Davis et al., 2014). The same holds true for CTE participation and post-release employment status for WSD students. In the data provided by WSD, 14,833 participants ($n_{vpart} = 14,833$) participated in CTE courses but neither completed the course nor earned certification. This number represented 14% of the sample population ($n = 105,647$). The data did not offer an explanation of why these participants failed to complete a course. There could be a variety of reasons, including an early release for an offender, disciplinary infraction and

subsequent removal from programming, student disinterest, facility transfer, illness, course termination by WSD or the facility, or perhaps a scheduling conflict for the student.

As with the other independent variables in this study (e.g., students who earned an industry certification, students who completed a CTE course but did not earn a certification), participants who enrolled in a CTE course but neither completed the course nor earned an industry certification represented the same percentage (2%) of participants who were *employed and retained* in the first year of release. Participants in this CTE outcome category were less likely to remain employed one year after an initial employment experience but more likely than their counterpart to be employed at least once in the first year of release.

When examining the percentages of participants who were *never employed* in the first year of release, the smallest percentage was found to be those participants who had earned an industry certification, followed by participants who had completed a CTE course, then by those participants who had earned a certificate of participation, indicating that positive CTE course outcomes positively impacted the participant's ability to attain employment in the first year of release. For those participants in the *never employed* category, an examination of the provided data indicated that some participants filed for unemployment due to a disability immediately upon release and some were described as retired upon release. It might be that these students were taking CTE courses to fill their leisure time during confinement, with no intent to seek employment once released. WSD should screen applicants appropriately to eliminate this possibility. With limited resources, correctional educators must prioritize who receives vocational training.

When examining the percentages of participants who were *employed but not retained* in the first year of release, the largest percentage was found to be those participants who had earned an industry certification, followed by participants who had completed a CTE course, then by those participants who had earned a certificate of participation. The data, then, indicated that positive CTE outcomes positively impacted a participant in attaining employment but not necessarily in sustaining it. One possible explanation of the high percentages of offenders attaining early employment could be contributed to the fact that employment is usually a requirement for parolees. If a former offender wants to avoid parole revocation, then employment is a priority (Alexander, 2012). The results of this study support this premise. Examining the types of jobs returning citizens are attaining within the first few weeks of release should be prioritized so that correctional leaders can gain a better understanding of how former offenders are transitioning to the workplace and what should be offered to them prior to release. In reviewing the provided data, many job descriptions were listed as temporary laborer, or company laborer, and other descriptions that had the appearance of being low-skilled or temporary jobs. Former offenders may be taking any job they can find upon release to not only fulfill parole requirements but also because being employed, paying bills, supporting a family or paying child support, and having purpose every day feels good. WSD leadership also explained that post-release employment data is subject to human error since it is entered by parole officers into a database, and they discovered incidents in which parole officers appeared to be choosing the first job description in the drop-down box instead of taking the time to search for the correct one, so while WSD can be reasonably certain that a former offender's employment status is correct, the data

regarding the actual job description is less reliable. The district, and all correctional agencies, should develop systems or ensure current systems for reporting employment status and job descriptions are accurate.

Implications

In an era that is recorded as incarcerating over 2.3 million of the U.S. population, correctional leaders, policymakers, and researchers are exploring possible causes and solutions to what some have termed the age of mass incarceration (Alexander, 2012; Karpowitz, 2017). Thousands of incarcerated individuals are released from federal and state prisons and jails every year and return to their communities. Some of these individuals reintegrate into their communities successfully and many more find their way back into the criminal justice system. Included in the factors that potentially lead an individual towards recidivism is a lack of education, both academic and in career-ready skills. One goal of this study was to add to the current body of research by examining CTE outcomes and any association between them and post-release employment status. Much of the reviewed literature supported the fact that participating in correctional education programs during incarceration positively reduced recidivism (Bozick et al., 2018; Davis et al., 2013; Ositelu, 2019). The results of this study indicated that there is also a relationship between CTE program outcomes and post-release employment status.

Accordingly, the first contribution of this study is that it provides data that should encourage correctional agencies and correctional educators to emphasize job-training and career-readiness programs for individuals prior to their release. “CTE programs that prepare individuals for employment are effective, and yet 77% of incarcerated persons in federal and state prisons are released having never participated in a training course.”

(Ositelu, 2019). TDCJ incarcerated approximately 153,000 individuals annually during the time period of this study, and yet WSD only served approximately 62,000 of those inmates each year. Former offenders have less education and fewer vocational skills than the general population, so providing CTE programs that prepare them for jobs with a sustainable living wage could level the playing field for them.

In the report published by the Rand Corporation, it was noted that participation in any correctional education program lowered an offender's odds of recidivism and appeared to increase their odds of obtaining post-release employment. The assessment of the results of the meta-analysis was that at first glance it may appear that CTE participation has more of an impact on attaining employment for returning citizens than participation in academic programming; however, the number of CTE programs studied was small, resulting in a lack of statistically significant difference between the percentage of odds for academic and CTE programs (Davis et al., 2013). This study, with a sample size of 105,647 participants ($n = 105,647$), supports the findings of the meta-analysis and the premise that CTE participation outcomes improve an individual's ability to attain post-release employment.

An additional benefit to increasing CTE programming is long-term cost efficiencies that can be realized when recidivism is reduced. Reducing the number of people confined in prisons and jails saves tax-payers money. One study reviewed in the existing literature estimated that an investment in correctional education as small as \$1,149 saved more than \$5,800 in taxes that would have been spent on crime-prevention (Pompoco et al., 2017, p. 516). Funding formerly expended on incarcerating an

individual can be invested in efforts that further disrupt the cycle of incarceration, such as public schools, colleges, and universities.

Another important take-away from this study for correctional practitioners who are considering an increase in CTE programming is the personal impact it may have on the individuals in their care. Gainful employment is imperative in daily survival upon release. Being able to pay bills and care for loved ones are basic needs that must be met but going to work every day also provides a sense of normalcy for returning citizens. Having a job that requires skill and offers a living wage also provides an individual with purpose every day. Offering training opportunities for such jobs must be prioritized by correctional agencies and correctional educators.

A second implication of this study derives from the finding that post-release employment data needs to be standardized, detailed, and reported in an accurate manner. In the review of literature, post-release employment attainment was not an emphasis in many studies, the dearth of data attributed to the difficulty correctional organizations have in obtaining post-release information of individuals and also to the lack of meaningful pre-release educational information (Pompoco et al., 2017). WSD is dependent on the parole division of TDCJ to provide post-release employment data. Parole officers enter data for individuals who are released on supervision in an electronic database. Data fidelity could be improved by reducing the opportunity for human error as much as possible in the submission of information. Some examples of human error in this study included the entry of invalid dates, incomplete data, and missing data fields. WSD leadership reported that in some cases, it was noted that the parole officer entered the same job description from the drop-down box choices for all of the individuals for which

data was entered, suggesting that instead of taking the time to search for the correct job description, the officer chose the first job on the list for each individual. Other issues that could arise in the area of data fidelity and validity could be that a parole officer could fail to update job status. As often as some individuals change jobs, it is conceivable that one or more job changes could be missed, leaving employment gaps in the data.

Detailed information that would explain why an individual takes and leaves employment would be helpful in determining whether or not CTE programming was impactful in improving an individual's employment experience. For instance, if an individual is terminated from employment, knowing if the termination is due to a lack of soft skills or lack of technical skills, or something beyond the employee's control like industry down-sizing or lack of transportation could inform correctional educators on future course offerings. Including data on why an individual chooses a position would be equally helpful in determining whether or not CTE programming is impactful. If individuals are attaining temporary jobs as laborers because they are taking a job, any job, to meet parole requirements or make quick money could mean that individuals need reentry support and guidance. If individuals are taking low-paying jobs because they lack technical skills for other employment opportunities, then pre-release training opportunities should be examined. Providing detailed information about the types of jobs, not just the general industry, that returning citizens attain could be compared to data regarding the types of industry certifications and CTE courses in which individuals participated to gain a clearer understanding of how or if former offenders are utilizing the pre-release training in which they participated.

A third implication of this study stems from a lack of research available on specific CTE programs and post-release employment outcomes and the need to increase studies in this area. Missing in the research are rigorous studies that can offer an explanation of the relationship between correctional CTE programming and post-release behaviors leading to recidivism and information reporting the relationship between the ability to attain and sustain gainful employment upon release and earning industry certifications from a correctional education program. There is also a lack of empirical studies that examine CTE and other correctional education programming in jails versus prisons. There are a number of studies that examined recidivism and its possible causes, but few that focused specifically on the possible contribution of post-release employment or to an individual's return to criminogenic activity, and even fewer that focused on the role that correctional education might play in the attainment and sustainability of post-release employment.

In addition to the limited number of studies that focus on the impact of specific CTE programming components and post-release employment status, another limitation to existing research is a dearth of studies that employed rigorous, experimental methods. Without rigorous design, identifying relationships between specific programming outcomes and post-release outcomes is difficult (Davis et al., 2014). Evaluations of correctional education programming is traditionally limited to recidivism, and beyond recidivism data, there is not much else. Focusing solely on recidivism as an outcome measure of programming effectiveness is short-sighted, given that post-release criminal behavior cannot be used as a metric of educational success unless the data also include variables specific to program outcomes (Ositelu, 2019). This study provided data that

indicated there was an association between specific CTE programming outcomes (e.g., industry certification, course completion, and program participation) and a returning citizen's post-release employment status. Neither future research nor future conversations should center around the question of whether or not CTE will positively impact post-release employment and recidivism, but rather they should be focused on how and why these positive impacts occur in order to increase positive outcomes. The remainder of this chapter will offer recommendations for future research and possible policy recommendations based on the results of the analysis of data and a review of the existing literature.

Recommendations for Future Research

Results of this study indicate that there is a relationship between pre-release CTE programming outcomes and post-release employment status. An examination of the number of participants and percentages of attainment in each CTE participation outcome category and the correlating post-release employment status outcome can offer insight into what may be assisting former offenders in finding and keeping employment upon release, but more research with more focus could assist practitioners in improving these outcomes. The outcomes of this study should spur correctional leaders to partner with researchers to conduct rigorous studies in this area. This section suggests four research areas, prompted by the outcomes of this study that could be undertaken to increase knowledge and improve on what works for returning citizens' post-release success.

Identifying CTE program components. One of the challenges in studying the impact of CTE programming in a correctional setting is a lack of consistency or non-existence of descriptions of CTE program components. Identifying the characteristics of

vocational training and career-readiness preparation is key to knowing what works and what does not. Future research recommendations to identify program components should include, at a minimum, (a) instructor qualifications, (b) course outcomes, (c) instructional delivery methods, (d) length of course and instructional time, (e) curriculum, (f) intake and re-entry planning, (g) post-release job placement, and (h) on-the-job training opportunities.

WSD's unique organizational structure of partnering with a state correctional agency to serve incarcerated students could be a model for research projects in determining CTE program efficacy by examining the qualifications of instructors. Course instructors should be certified in their discipline areas. WSD operates as an independent school district in Texas and thus hires certified teachers. CTE teachers may have a certification plus years of industry experience (Windham School District, 2012). Ensuring that instructors have the qualifications and experience to guide job-training courses could be one variable by which to measure program efficacy and student success.

CTE course outcomes have been discussed in this study as a critical program component that can be utilized to compare pre-release activity to post-release outcomes. A specific area of study could be to determine if there is any relationship between a student earning an industry certification and post-release employment in that specific career pathway. In other words, are returning citizens leveraging the industry certification they earned while incarcerated to attain and sustain post-release employment? Another research suggestion would be to examine programs that focus on industry certification versus programs which provide general CTE courses that do not culminate in a nationally recognized credential. This study supports the national trend moving towards

programming that focuses on industry certification. Examining this program component and its possible impact of positive post-release employment opportunities would be a worthwhile endeavor and add to the evidence-based body of research.

Some program components that could be studied to determine program efficacy and/or student success are classroom centered, including instructional delivery methods. Instruction should include a combination of classroom lecture and hands-on practicum. Particularly for students who are preparing to enter the workforce, hands-on, technical skill training and an understanding of industry vocabulary are essential to attaining and sustaining employment. There should also be an effective balance between instructor-led instruction, independent study, and computer based instruction. Because incarcerated students have skill gaps and a lack of work experience, instructor-led instruction is vital, and because adult learners build meaning from personal experiences, they also need opportunities to work and problem-solve independently. A lack of 21st century technology skills will be a hindrance for individuals trying to compete for jobs in a 21st century technology-rich job market. Every CTE program should include computer-based instruction as one method of instructional delivery to assist in preparing students to reenter the workforce.

The length of time a student is in a course should be an area of study in describing and measuring program components. For instance, it would be valuable to know if the amount of time a student is exposed to instruction impacts a specific outcome. An outcome could be the earning of an industry certification, or perhaps attaining employment within one week of release, and the total number of hours a student was exposed to CTE programs could be the predictor. In essence, this area of study would be

exploring dosage. Researchers could also study dosage to determine if the amount of student exposure to a CTE program is associated with a specified outcome for program efficacy.

One of the components on which WSD bases effective CTE programming is a rigorous curriculum that meets industry standards. Specifically, the district defines a rigorous CTE curriculum as one that includes performance specifications dictated by industry that identify the knowledge, skills and competencies an individual must possess to succeed in the workplace (Windham School District, 2012). Ensuring that a CTE program and specific courses are employing curricula that meet these qualifications is a program characteristic that researchers should identify. Utilizing curricula materials and resources that meet industry standards will ensure that returning citizens are up to date on current practices and competitive when applying for positions. In career pathways that have a technology component, such as the Telecommunications career cluster, advancements are made frequently. Organizations and businesses invest in training their employees to keep up with these changes, and correctional CTE programs must do the same. An entry-level employee who is current on training and certifications will be more attractive to employers than a potential new hire who will have to attend training before they can undertake an assignment. Researchers could use industry-standard curriculum as one variable in measuring program efficacy and student outcomes.

Additional program components that should be identified in research are centered around career-readiness. There should be a plan, beginning at intake, carrying through the time of confinement, and culminating at re-entry, that prepares an individual for gainful employment. Another program characteristic that should be studied is any processes that

may be in place designed to assist returning citizens in post-release job placement. When an individual is released from a correctional facility, having a job waiting is preferable to having to hunt for one, so exploring any mechanisms for pre-release job placement is an additional program component that could be an effective research variable in examining positive post-release outcomes.

In contrast to their non-incarcerated peers, incarcerated individuals may lack the opportunity to participate in on-the-job training opportunities such as apprenticeships. Some prison systems form industry partnerships that provide apprenticeship programs and many criminal justice systems create on-the-job opportunities for individuals prior to their release. These components of a CTE program could be effective variables for future studies that specifically examine the factors that contribute to a positive relationship between CTE program participation outcomes and post-release employment status.

Evaluating CTE program efficacy. In looking at CTE program efficacy, recidivism may not be the most important outcome to examine. The more immediate goal of a CTE program is employment status. Correctional CTE educators should be asking and answering whether or not the program they provide is appropriately preparing participants to successfully attain and sustain employment. As a result of this study, future research recommendations to evaluate CTE program efficacy should include, at a minimum, (a) identify outcome measures of CTE program effectiveness in addition to recidivism, (b) identify program evaluation tools, and (c) examine program selection bias.

Based on the post-release employment data provided by the WSD for this study, research for program efficacy should include specific employment variables as outcomes. Knowing the length of time from an individual's release date to the first

incidence of employment, for instance, could be an outcome for studying CTE program effectiveness. Securing employment is a priority for returning citizens and a protective factor against returning to the criminal justice system (Alexander, 2012; Nelson et al., 2011). Likewise, examining how long an individual is employed would be valuable, as would knowing why an individual may leave employment. Such research could guide programming interventions. For instance, if employment terminations occur because of negative employee behavior (e.g., late to work, missing work, negative attitude), an increase in soft skill instruction could be implemented. If individuals are losing jobs due to a lack of technical skill, then a review of instructor certification, instructional delivery, or curriculum might need to be conducted.

Using outcome measures that are directly tied to program characteristics would be valuable in evaluating CTE program efficacy. Jobs that former offenders procure should be in the same field of the CTE fields of study in which they were enrolled. If an offender earns an industry certification during incarceration, that certification should be leveraged to gain employment. Research should include an examination of whether or not an industry certification plays a role in an individual's eligibility for employment. If one program characteristic is providing a professional social network for CTE students, then research should include an exploration of how or if students are using that network to gain post-release employment. Examining wage earning potential and the actual wages of former CTE students as post-release outcomes are further recommendations with which program efficacy could be measured. Former offenders should be earning a sustainable living wage and a CTE program should be preparing them for jobs that pay such wages. These types of measures should shape future research.

In addition to identifying measures of program effectiveness, researchers should identify any program evaluation tools being utilized by a CTE program in order to measure program efficacy. If there are evaluation tools already in place by which a correctional institution or correctional education agency is evaluating program effectiveness, then researchers should begin with an examination of their effectiveness. Evaluation tools should include specified and defined expected outcomes, quality standards for instruction and curricula, prescribed interventions in place when a program is not producing desired outcomes, and procedures in place for who monitors program outcomes and how that is accomplished.

Another recommended area of future study in evaluating CTE program efficacy is selection bias. Any possible bias in selecting participants should be ruled out when examining a relationship between pre-release CTE participation and successful post-release outcomes. If participation in CTE programming is voluntary, then it is possible that the participants are predisposed to be motivated, career-ready, and work-oriented. If so, then any observed relationship between programming and employment outcomes could possibly be more about the participants and less about the efficacy of programming. It is recommended that future research rule out selection bias prior to testing whether any positive relationship between CTE participation and post-release employment exists.

Exploring reforms in WSD CTE programming. In 2013, WSD hired new leadership. From that time to 2017, the WSD doubled their CTE offerings to women and realized an increase of 470 percent of industry-recognized certifications earned by female students. The district continued to expand CTE offerings across the state to all

inmate students, adding Computerized Numerical Control (CNC) machining and telecommunications connectivity courses to fill the state-wide employment gap in Science, Technology, Engineering and Math (STEM) occupations. The district improved its CTE offerings in an effort to better prepare offenders for post-release employment success by revising existing curricula, increasing collaboration with state industry partners, and focusing on strategies to enhance opportunities for offenders with short lengths of stay. Partnering with TDCJ, WSD expanded the opportunities for certified offenders to apply for facility jobs and gain pre-release work experience (Windham School District, 2018, p. 2).

In this study, WSD reported that 6,396 participants who were released in school years 2011-2013 ($n_{certified} = 6,396$) earned industry certifications. In the district's 2017-2018 annual report, WSD reported 33,451 industry certifications were earned, and in the 2018-2019 annual report, 33,695 industry certifications were awarded for the 2018 school year (Windham School District, 2017; Windham School District, 2018). A future research project that would examine the post-release employment outcomes with industry certifications as a predictor would be valuable in comparison to this study. With an increased focus on earning industry certifications, an exploration of whether or not that focus improved post-release employment outcomes for participants could be valuable for practitioners in expanding CTE programming. Additional research could include an exploration of the job market research, if any, conducted by the district compared to the industry certification courses added to programming and whether or not employment attainment increased in those fields.

Improving research design for CTE program studies. Any discussion of future research involving CTE programming would be incomplete without a recommendation to increase the number and improve the research design of further studies. The literature review has established there is a dearth of research that explores associations between specific CTE programming characteristics and specific post-release employment outcomes (Bozick et al., 2018; Davis et al., 2013; Skardhamar & Telle, 2012). There is also a documented need for evidence-based research for correctional education that is of high quality (Davis et al., 2013). Future research recommendations should provide strong research designs and evidence-based characteristics that have been discussed in this study (e.g., identifying CTE program components, evaluating CTE program efficacy, specifying post-release outcomes).

Policy Recommendations

The results of this study included an observed association between CTE program outcomes and post-release employment status for former offenders in Texas. The reviewed literature included study results that reported a positive relationship between participation in correctional education and recidivism (Bozick et al., 2018, Davis et al., 2013; Ositelu, 2019). Based on the results of this study, information garnered from the reviewed literature, and recommendations for future research, there are five recommendations with policy implications that will be outlined in this section. These suggestions are to (a) increase the availability of quality CTE opportunities for incarcerated individuals, (b) increase the number and quality of outside educational partners, (c) implement CTE and post-release employment as part of the intake and re-

entry process, (d) initiate research projects to ensure program effectiveness and inmate post-release success, and (e) hire educators to oversee correctional education.

Increase the availability and quality of CTE opportunities for incarcerated individuals. Correctional institutions should increase the availability of quality CTE opportunities for the individuals in their care. CTE programs and courses should be based on job market research to ensure that individuals are ready to enter a competitive work force. Based on this job market research, correctional CTE programs should focus on industry-recognized credentials as opposed to local certificates of completion or participation. Included in the creation or expansion of programming should be the consideration of wage-earning potential for returning citizens. Preparing students for careers and not just jobs should be prioritized so that former offenders are earning a living wage upon release.

Correctional agencies should amend policies to ensure that instructors are certified and qualified to teach in order to improve the quality of programming. There should also be provisions made to ensure that CTE programs are appropriately and regularly evaluated and that interventions are employed to mitigate any found deficiencies. Coordination among all divisions in an institution to accommodate all schedules (e.g., operational, medical, treatment) should be prioritized and mandated so that career-readiness programming is available to all inmates.

State and federal policymakers must prioritize correctional education with specific emphasis on CTE and job-training programming by revising funding to support these programs. Permanent restoration of the Second Chance Pell Grant is a good example of how the federal government can send the message that education is valued

for this population (Restoring, 2019). Funding to state correctional agencies via the Carl D. Perkins grant to support CTE programming is another good example of prioritized funding by the federal government (DelliCarpini, 2010). State governments need to follow suit. Tying funding to specific program outcomes could also be a policy revision that would ensure that CTE programming is not only prioritized and funded, but also measured.

Increase the quantity and quality of outside educational partners.

Correctional institutions should increase the number of educational providers with whom they partner. Facilities typically limit postsecondary providers to one college or university, limiting not only an inmate's choice of provider and programs, but also limiting the scope of what the facility can offer (Ositelu, 2019). By broadening partnerships, correctional agencies can realize cost-savings while increasing programming. Agencies should draft a Memorandum of Understanding or Memorandum of Agreement with each partner, defining the expectations of both partners, and requiring the educational partner to provide funding and services that will increase programming at no or minimal cost to the correctional agency.

A formal agreement can also guarantee quality programming. The correctional agency's education leadership should clearly define program characteristics, outcomes, and methods by which the provider will be evaluated. At the time of evaluation, if the outcomes are not up to par as outlined, then the agreement and partnership should be terminated. Too frequently, there are no guidelines to ensure quality services, and facilities may have community-based organizations or higher education partners that are not providing high-quality opportunities to students. Correctional educators should

choose partners intentionally with program outcomes in mind, then carefully draft formal agreements to ensure those outcomes are provided.

Offering an inmate a choice in providers would not only be a cost-savings to the agency and increase the number of program offerings for a facility, it would also allow inmates to choose a program that is of interest to them and tailored to their needs. Choice is personally empowering, reduces waiting lists, and expands the types of programs offered. As an example, in Washington, D.C., the Department of Corrections offers two for-credit degree programs by two universities. One, Ashland University, offers Associates and Bachelor's degree paths via distance learning, and Georgetown University offers a face-to-face Bachelor's degree program. The University of the District of Columbia offers CTE courses that culminate in an industry certification, and two additional universities offer a variety of programs and courses that include graduate-level courses. In instances where inmates may be paying for CTE and postsecondary courses, being able to price shop is an added benefit (Ositelu, 2019). Increasing the number of high-quality outside partnerships also widens an offender's professional social network, which can then be leveraged at release to attain employment.

Implement CTE and post-release employment planning as part of the intake and re-entry process. Correctional agencies should ensure that educators are members of the multi-disciplinary team that designs inmate case plans at intake and re-entry plans prior to release. Ideally, CTE planning and post-release employment planning should occur at intake. Agencies should revise policy to mandate an evidence and research-based career inventory is conducted with every inmate at intake. Case management plans should include career planning, inclusive of CTE courses, and post-release employment

goals. At least 12 months prior to release, correctional educators, officials, and the inmate should leverage the student's career and academic credentials and professional social network to prepare for job application and workforce re-entry. Policy revisions should include protocols that would ensure these multidisciplinary team activities. Educational partners should also be active members of this team, providing training and employment guidance from intake to re-entry. Agencies should provide policy revisions to include postsecondary and career-readiness liaisons in the planning process.

To increase community partnerships and improve post-release employment opportunities for inmates, agencies should host career events that increase exposure of a skilled, well-trained workforce to area industries. Activities should include the opportunity for students to explore job opportunities and career pathways through career fairs and workshops led by industry experts. Events that present interviewing skills, give participants the chance to practice those skills, and then offer the opportunity to participate in authentic interviews that result in a job waiting on an offender at release will increase post-release outcomes. These events should be part of an inmate's case plan, mapped out from intake to release in order to ensure there is a focus on successful reintegration and programming to support employment goals throughout the period of confinement. Local policy should include such activities as part of the inmate intake and educational process.

Initiate research projects to ensure program effectiveness and inmate post-release success. Correctional educators should partner with researchers to initiate rigorous program evaluation (Davis et al., 2013). Such partnerships would not only provide feedback and insight into program efficacy, it would encourage agencies and

state governments to improve their data collection methods and systems. Published research would enable program successes to be replicated and missteps to be mitigated and avoided by other correctional institutions. Joint research projects with higher education or research partners would allow correctional agencies to leverage rigorous study designs for increased grant funding (Davis et al., 2013). Correctional agencies should implement a fair and reasonable Institutional Review Board (IRB) process to protect the rights and welfare of participants and be open to exploring research projects.

Hire educators to oversee correctional education. WSD's unique organizational structure should be a model for other states and the federal criminal justice system. The fact that the district stands alone and is not under the jurisdiction of the criminal justice organizational system prioritizes education for the state's incarcerated population instead of relegating it to a sub-division of corrections. Government policy makers should also model correctional education funding after WSD. Receiving funding from the state education agency instead of being included in the criminal justice system budget protects it from competition with security staffing and facility issues. State policy regarding WSD also includes hiring only certified teachers, ensuring that educators are overseeing education (Shlacter, 1997).

Hiring certified educators will improve instructional delivery as teachers are trained to provide instruction for all student learning styles, accommodate and modify work for students with learning disabilities, and understand the differences between pedagogy and andragogy. An added benefit to hiring certified educators is that outside education provider partners are also educators, making the correctional educator in a unique position to be the liaison between outside partners and the correctional facility.

Conclusion

With 2.3 million people incarcerated in the U.S. and 700,000 of them returning to their communities each year, the criminal justice system and correctional educators must find an effective way to prepare returning citizens to successfully avoid returning to the system (Office of Justice Programs, 2015; Ositelu, 2019, p. 11). “If the infrastructure, correctional staff buy-in, political will, and resources are not invested to shift prisons to rehabilitation, individuals will continue to be released from prison unprepared and less likely to succeed in their efforts to reenter society” (Ositelu, 2019, p. 55). The review of existing literature indicates that an inmate’s participation in correctional education positively reduces their odds of recidivating (Davis et al., 2013).

This study was designed to explore the impact of correctional CTE program outcomes on an individual’s ability to successfully attain and retain employment once released to the community by exploring the relationship, if any, between WSD students who completed a CTE course and earned an industry certification, WSD students who completed a CTE course but did not earn certification, and WSD students who participated in CTE but neither completed a course nor earned certification and their post-release employment status. Results indicated that there was a statistically significant relationship observed between each of the independent variables and the dependent variable. Future research recommendations as well as recommendations for policy were suggested based on the conducted study and the reviewed literature. Policymakers, correctional leaders, and correctional educators should acknowledge the need for quality CTE programming and re-entry planning for successful reintegration and prioritize meaningful career-ready program implementation. Researchers should also endeavor to

conduct rigorous studies that examine specific CTE program predictors and meaningful post-release outcomes to improve programming and post-release experiences for returning citizens.

REFERENCES

- Akers, R. L. (1990). Rational choice, deterrence, and social learning theory in criminology: The path not taken. *The Journal of Criminal Law. & Criminology*, 81(3), 653. doi:10.4324/9781315095301-14
- Alexander, M. (2012). *The new Jim Crow: Mass incarceration in the age of colorblindness*. New York, NY: The New Press.
- Alper, M., Durose, M. R., & Markman, J. (2018). *2018 update on prisoner recidivism: A 9-year follow-up period (2005-2014)* (Special Report). U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <https://babsim.com/wp-content/uploads/2019/04/2018-update-on-prisoner-recidivism.pdf>
- Ashland University. (2016, June 24). Ashland University one of 67 colleges and universities nationwide to participate in Second Chance Pell Pilot Program [online article]. *Ashland University News Center*. Retrieved from <https://news.ashland.edu/article/ashland-university-one-67-colleges-and-universities-nationwide-participate-second-chance>
- Ashland University. (2019). Correctional education [website]. Retrieved from <https://www.ashland.edu/founders/programs/correctional-education>
- Avery, B. (2019, July). *Ban the box: U.S. cities, counties, and states adopt fair hiring policies*. New York, NY: National Employment Law Project. Retrieved from <https://s27147.pcdn.co/wp-content/uploads/Ban-the-Box-Fair-Chance-State-and-Local-Guide-July-2019.pdf>

- Bandura, A. (1971). *Social learning theory*. New York, NY: General Learning Press.
- Retrieved from:
http://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf
- Batiuk, M. E. (1997). The state of post-secondary correctional education in Ohio. *Journal of Correctional Education*, 48(2), 70-72. doi:10.1080/07418829700093261
- Batiuk, M. E., Moke, P., & Rountree, P. W. (1997). Crime and rehabilitation: Correctional education as an agent of change—A research note. *Justice Quarterly*, 14(1), 167-180. doi:10.1080/07418829700093261
- Bauer, S. (2019). *American prison: A reporter's undercover journey into the business of punishment*. New York, NY: Penguin Books.
- Beck, A. R. (2001). Recidivism: A fruit salad concept in the criminal justice world. *Justice Concepts Incorporated*, 1-3. Retrieved from
<http://www.justiceconcepts.com/recidivism.pdf>
- Becker, G. S. (2013). *The economic approach to human behavior*. Chicago, IL: University of Chicago Press. doi:10.7208/Chicago/9780226217062.001.0001
- Bellafante, G. (2014, May 30). *Prison program turns inmates into intellectuals*. The New York Times. Retrieved from
<http://www.nytimes.com/2014/06/01/nyregion/prison-program-turns-inmates-into-intellectuals.html>
- Berg, M. T., & Huebner, B. M. (2011). Reentry and the ties that bind: An examination of social ties, employment, and recidivism. *Justice Quarterly*, 28(2), 382-410. doi:10.1080/07418825.2010.498383

- Black, T. H., Brush, M. M., Grow, T. S., Hawes, J. H., Henry, D. S., & Hinkle Jr., R. W. (1996). Natural bridge transition program follow-up study. *Journal of Correctional Education, 47*(1), 4-12. Retrieved from <http://www.jstor.org/stable/23292008>
- Bouffard, J. A., MacKenzie, D. L., & Hickman, L. J. (2000). Effectiveness of vocational education and employment programs for adult offenders: A methodology-based analysis of the literature. *Journal of Offender Rehabilitation, 31*(1-2), 1-41. doi:10.1300/J076v31n01_01
- Bozick, R., Steele, J., Davis, L., & Turner, S. (2018). Does providing inmates with education improve post-release outcomes? A meta-analysis of correctional education programs in the United States. *Journal of Experimental Criminology, 14*(3), 389-428. Retrieved from <http://linkspringercom.springer.xayx.yuntsg.cn:2222/content/pdf/10.1007%2Fs11292-018-9334-6.pdf>
- Brazzell, D., Crayton, A., Mukamal, D. A., Solomon, A. L., & Lindahl, N. (2009). *From the classroom to the community: Exploring the role of education during incarceration and reentry*. Washington, DC: Urban Institute. Retrieved from <https://files.eric.ed.gov/fulltext/ED508246.pdf>
- Brewster, D. R., & Sharp, S. F. (2002). Educational programs and recidivism in Oklahoma: Another look. *The Prison Journal, 82*(3), 314-334. doi:10.1177.003288550208200302

- Burns, K. (Executive Producer), & Novick, L. (Director). (2019). *College Behind Bars* [Documentary]. U.S.: Skiff Mountain Films. Retrieved from <https://www.skiffmountainfilms.com/>
- California Innocence Project. (2019). *Recidivism rates*. [website] Retrieved from <https://californiainnocenceproject.org/issues-we-face/recidivism-rates/>
- Carson, E. A., & Golinelli, D. (2013). *Prisoners in 2012: Trends in admissions and releases, 1991–2012*. Washington, DC: Bureau of Justice Statistics. Retrieved from <https://www.bjs.gov/content/pub/pdf/p12tar9112.pdf>
- Carter, F. C. (2008). Offender employment is the key. *Corrections Today*, 70(4), 108. Retrieved from <http://search.ebscohost.com.ezproxy.shsu.edu/login.aspx?direct=true&db=f6h&AN=33545263&site=eds-live&scope=site>
- Castro, E. L., Hunter, R. K., Hardison, T., & Johnson-Ojeda, V. (2018). The landscape of postsecondary education in prison and the influence of Second Chance Pell: An analysis of transferability, credit-bearing status, and accreditation. *The Prison Journal*, 98(4), 405-426. doi:10.1177/0032885518776376
- Chappell, C. A. (2004). Post-secondary correctional education and recidivism: A meta-analysis of research conducted 1990-1999. *Journal of Correctional Education*, 148-169. Retrieved from https://etd.ohiolink.edu/rws_etd/document/get/ucin1052944947/inline
- Central Texas College. (2019). Gatesville TDCJ [website]. Retrieved from <https://www.ctcd.edu/locations/other-texas-locations/gatesville/tdcj/>

- Cherney, A., & Fitzgerald, R. (2014). Finding and keeping a job: The value and meaning of employment for parolees. *International Journal of Offender Therapy and Comparative Criminology*, 60(1), 21-37. doi:10.1177/0306624X14548858
- Clark, K. R. (2018). Learning theories: Constructivism. *Radiologic Technology*, 90(2), 180-182. Retrieved from <http://search.ebscohost.com.ezproxy.shsu.edu/login.aspx?direct=true&db=ccm&AN=13275022&sit=eds-live&scope=site>
- Clarke, R. V. G. (Ed.). (1997). *Situational crime prevention: Successful case studies* (pp. 1-43). Monsey, NY: Criminal Justice Press. Retrieved from https://popcenter.asu.edu/sites/default/files/library/reading/PDFs/scp2_intro.pdf
- Condliffe-Lagemann, E. (2011). What can college mean? Lessons from the Bard Prison Initiative. *Change*, 43(6), 14. <https://doi-org.ezproxy.shsu.edu/10.1080/00091383.2011.618078>
- Contardo, J., & Tolbert, M. (2008). *Prison postsecondary education: Bridging learning from incarceration to the community*. Reentry Roundtable on Education, John Jay College of Criminal Justice, New York, April, 1. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.514.8637&rep=rep1&type=pdf>
- Copenhaver, A., Edwards-Willey, T. L., & Byers, B. D. (2007). Journeys in social stigma: The lives of formerly incarcerated felons in higher education. *Journal of Correctional Education*, 58(3), 268-283. Retrieved from <http://www.jstor.org/stable/23282578>

- Cornish, D., & Clarke, R. (1987, November). Understanding crime displacement: An application of rational choice theory. *Criminology*, 25(4), 933-948.
doi:10.1111/j.1745-9125.1987.tb00826.x
- Crayton, A., & Lindahl, N. (2015). *Back to school: A guide to continuing your education after prison*. New York, NY: Prisoner Reentry Institute, John Jay College of Criminal Justice. Retrieved from <https://files.eric.ed.gov/fulltext/ED573540.pdf>
- Crayton, A., & Neusteter, S.R. (2008). *The current state of correctional education*. Paper prepared for the Reentry Roundtable on Education, New York: John Jay College of Criminal Justice, Prisoner Reentry Institute. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.583.3493&rep=rep1&type=pdf>
- Davis, L. M., Bozick, R., Steele, J. L., Saunders, J., & Miles, J. N. (2013). *Evaluating the effectiveness of correctional education: A meta-analysis of programs that provide education to incarcerated adults*. Washington, DC: Rand Corporation. Retrieved from https://www.rand.org/content/dam/rand/pubs/research_reports/RR200/RR266/RAND_RR266.sum.pdf
- Davis, L. M., Steele, J. L., Bozick, R., Williams, M. V., Turner, S., Miles, J. N., & Steinberg, P. S. (2014). *How effective is correctional education, and where do we go from here? The results of a comprehensive evaluation*. Rand Corporation. Retrieved from <https://www.prisonlegalnews.org/media/publications/BJA%20-%20How%20Effective%20is%20Correctional%20Education,%202014.pdf>

- Davis, S. W. (2015). Ripping off some room for people to “breathe together”: Peer-to-peer education in prison. *Social Justice*, 42(2), 146-159. Retrieved from <http://search.proquest.com/openview/f54394609681759848ebac06659df5e3/1?pq-origsite=gscholar&cbl=48122>
- DelliCarpini, M. (2010). Building a better life: Implementing a career and technical education program for incarcerated youth. *Journal of Correctional Education*, 61(4), 283-295. Retrieved from <https://www.jstor.org/stable/23282762?seq=1>
- DeVries, R., & Zan, B. (2003). When children make rules. *Educational Leadership*, 61(1), 64-67. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.517.4264&rep=rep1&type=pdf>
- Doleac, J. L., & Hansen, B. (2016). Does “ban the box” help or hurt low-skilled workers? Statistical discrimination and employment outcomes when criminal histories are hidden (No. w22469). *National Bureau of Economic Research*. Retrieved from <https://www.nber.org/papers/w22469.pdf>
- Dortch, C. (2014). *Career and technical education (CTE): A primer*. Washington, DC: Congressional Research Service. Retrieved from http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=2237&context=key_workplace
- Dory, C. (2009, November). Society must address recidivism, officials say [online]. *USC News*. Retrieved from <https://news.usc.edu/30029/society-must-address-recidivism-officials-say/>

- Duwe, G., & Clark, V. (2014). The effects of prison-based educational programming on recidivism and employment. *The Prison Journal, 94*(4), 454-478.
doi:10.1177/0032885514548009
- Eaglin, J. M. (2017). Constructing recidivism risk. *Emory Law Journal: Indiana University, 67*(59), 59-122.
- Ellison, M., Szifris, K., Horan, R., & Fox, C. (2017). A Rapid evidence assessment of the effectiveness of prison education in reducing recidivism and increasing employment. *Probation Journal, 64*(2), 108-128. doi:1177/0264550517699290
- Erisman, W., & Contardo, J. B. (2005). *Learning to reduce recidivism: A 50-state analysis of postsecondary correctional education policy*. Institute for Higher Education Policy. Retrieved from <https://files.eric.ed.gov/fulltext/ED558210.pdf>
- Ertmer, P. A., & Newby, T. J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 6*(4), 50-72. doi:10.1111/j.1937-8327.1993.tb00605.x
- Escobar, E. K., Jordan, T. R., & Lohrasbi, E. A. (2015). Redefining lives: Post-secondary education for currently and formerly incarcerated individuals. *The Vermont Connection, 34*(1), 31-41. Retrieved from <http://scholarworks.uvm.edu/tvc/vol34/iss1/5>
- Fabelo, T. (2002). The impact of prison education on community reintegration of inmates: The Texas case. *Journal of Correctional Education, 53*(3), 106-110. Retrieved from <http://www.jstor.org/stable/41971087>
- Fehr, L. M. (2009, December). Reentry matters. *Corrections Today, 71*(6), 8, 13.

Flake, D. F. (2015). When any sentence is a life sentence: employment discrimination against ex-offenders. *Washington University Law Review*, 93(1), 45-102.

Retrieved from

http://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6174&context=law_lawreview

Freeman, R. B. (1994). Crime and the job market (No. w4910). *National Bureau of Economic Research*. Retrieved from <https://www.nber.org/papers/w4910.pdf>

Geller, A., Garfinkel, I., & Western, B. (2006). The effects of incarceration on employment and wages: An analysis of the fragile families survey. *Center for Research on Child Wellbeing*, Working Paper, 1, 2006. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.517.388&rep=rep1&type=pdf>

Gerber, J., & Fritsch, E. J. (1995). Adult academic and vocational correctional education programs: A review of recent research. *Journal of Offender Rehabilitation*, 22(1-2), 119-142. doi:10.1300/J076v22n01_08

Georgetown University Prisons and Justice Initiative. (2019). Georgetown Prison Scholars Program at the DC jail [online article]. *Prisons and Justice Initiative*. Retrieved from

<https://prisonsandjustice.georgetown.edu/programs/scholarsprogram/>

Gordon, H. R., & Weldon, B. (2003). The impact of career and technical education programs on adult offenders: Learning behind bars. *Journal of Correctional Education*, 54(4), 200-209. Retrieved from <http://www.jstor.org/stable/23292175>

- Hagan, J., & Burch, T. (2010, Summer). The social costs of incarceration. *Researching Law, 21*(3), 1-6. Retrieved from http://www.americanbarfoundation.org/uploads/cms/documents/abf_rl_summer_2010.pdf
- Halkovic, A. (2014). Redefining possible: Re-visioning the prison-to-college pipeline. *Equity & Excellence in Education, 47*(4), 494-512. doi:10.1080/10665684.2014.959284
- Harlow, C. W. (2003). *Education and correctional populations*. Bureau of Justice Statistics Special Report. Retrieved from <https://files.eric.ed.gov/fulltext/ED477377.pdf>
- Harrison, B., & Schehr, R. C. (2004). Offenders and post-release jobs: Variables influencing success and failure. *Journal of Offender Rehabilitation, 39*(3), 35-68. doi:10.1300/J076v39n03_03
- Hein, G. (1991, October 15-22). Constructivist learning theory. *Institute for Inquiry*. Paper presented at International Committee of Museum Educators Conference, Jerusalem Israel. Retrieved from http://beta.edtechpolicy.org/AAASGW/Session2/const_inquiry_paper.pdf
- Hrabowski III, F. A., & Robbi, J. (2002). The benefits of correctional education. *Journal of Correctional Education, 53*(3), 96-99. Retrieved from <https://www.jstor.org/stable/41971084?seq=1>
- Jobs for Felons Hub. (2019). *Can a felon qualify for a Pell grant?* [website]. Retrieved from <https://www.jobsforfelonshub.com/can-felon-qualify-pell-grant/>

- Karpowitz, D. (2017). *College in prison: Reading in an age of mass incarceration*. New Brunswick, NJ: Rutgers University Press.
- Keen, C. H., & Woods, R. (2016) Creating activating events for transformative learning in a prison classroom. *Journal of Transformative Education*, 14(1), 15-33.
Retrieved from
https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=https://scholar.google.com/&httpsredir=1&article=1004&context=cel_pubs
- Kim, R. H., & Clark, D. (2013). The effect of prison-based college education programs on recidivism: Propensity score matching approach. *Journal of Criminal Justice*, 41(3), 196-204. Retrieved from
<https://economix.fr/uploads/source/membres/536/matching-prisoneducation.pdf>
- Knott, G. A. (2011). Cost and punishment: Reassessing incarceration costs and the value of college-in-prison programs. *Northern Illinois University Law Review*, (Issue 2), 267. Retrieved from
<http://commons.lib.niu.edu/bitstream/handle/10843/19255/32-2-267-Knott-pdfA.pdf?sequence=1&isAllowed=y>
- Koenig, Rebecca. (2019, October 3). In DC, teachers run the jail. It's turning inmates into students [online article]. *EdSurge Adult Learning* Retrieved from
<https://www.edsurge.com/news/2019-10-03-in-dc-teachers-run-the-jail-it-s-turning-inmates-into-students>
- Korte, G., (2016). Pell grants for prisoners: Obama to give inmates a second chance at college [online]. *U.S.A. Today*. Retrieved from

<http://www.usatoday.com/story/news/politics/2016/06/24/pell-grants-prisoners-obama-give-inmates-second-chance-college/86312598/>

- Latessa, E. (2011). Why the risk and needs principles are relevant to correctional programs (even to employment programs). *Criminology & Public Policy*, 10(4), 973. doi:10.1111/j.1745-9133.2011.00759.x
- Linton, J. (2010). United States Department of Education update. *Journal of Correctional Education*, 61(2), 96-98. Retrieved from <http://search.ebscohost.com.ezproxy.shsu.edu/login.aspx?direct=true&db=a9h&AN=53550693&site=eds-live&scope=site>
- Linton, J. (2011). United States Department of Education Update. *Journal of Correctional Education*, 62(2), 73-76. Retrieved from <http://www.jstor.org/stable/23282663>
- Linton, J. (2011). United States Department of Education update. *Journal of Correctional Education*, 62(2), 73-76. Retrieved from <http://www.jstor.org/stable/23282663>
- Linton, J. (2013). United States Department of Education Update. *Journal of Correctional Education*, 64(2), 2-3. Retrieved from <http://eds.b.ebscohost.com.ezproxy.shsu.edu/eds/pdfviewer/pdfviewer?vid=2&sid=76a3bfaf-6071-4c3c-ae2f-53b7e746876a%40sessionmgr102>
- Listwan, S. J., Sullivan, C. J., Agnew, R., Cullen, F. T., & Colvin, M. (2013). The pains of imprisonment revisited: The impact of strain on inmate recidivism. *Justice Quarterly*, 30(1), 144-168. doi:10.1080/07418825.2011.597772
- Lockwood, S., Nally, J. M., Ho, T., & Knutson, K. (2012). The effect of correctional education on post-release employment and recidivism: A 5-year follow-up study

in the state of Indiana. *Crime & Delinquency*, 58(3), 380-396.

doi:10.1177/0011128712441695

Martinson, R. (1974). What works? Questions and answers about prison reform. *Public Interest*, (35), 22–54. Retrieved from <http://search.ebscohost.com.ezproxy.shsu.edu/login.aspx?direct=true&db=ahl&AN=45944315&site=eds-live&scope=site>

Mauer, M. (2011). Addressing racial disparities in incarceration. *The Prison Journal*, 91(3), 87S-101S. doi:10.1177/0032885511415227

McHugh, M. L. (2013). The chi-square test of independence. *Biochemia medica: Biochemia medica*, 23(2), 143-149. Retrieved from file:///Users/amylopez/Downloads/McHugh_ML_Chi_square.pdf

Merriam, S. B., & Bierema, L. L. (2014). *Adult learning: Linking theory and practice*. San Francisco, CA: John Wiley & Sons.

Messemer, J. E. (2003). College programs for inmates: The post-Pell grant era. *Journal of Correctional Education*, 54(1), 32-39. Retrieved from <http://www.jstor.org/stable/41972065>

Meyer, S. J. (2011). Factors affecting student success in postsecondary academic correctional education programs. *Journal of Correctional Education*, 62(2), 132-164. Retrieved from <https://www.jstor.org/stable/23282667>

Meyer, S. J., Fredericks, L., Borden, C. M., & Richardson, P. L. (2010). Implementing postsecondary academic programs in state prisons: Challenges and opportunities. *Journal of Correctional Education*, 61(2), 148-184. Retrieved from <http://www.jstor.org/stable/23282637>

- Meyer, S. J., & Randel, B. (2013). The impact of an associate's degree program for incarcerated students a randomized trial of the Correctional Education Association College of the Air program. *Community College Review, 41*(3), 223-248. doi:10.1177/0091552113497787
- Moore, D. S., Notz, W., & Fligner, M. A. (2013). *The basic practice of statistics*. New York, NY: WH Freeman and Company.
- NAACP. (2019). Criminal justice fact sheet [website]. Retrieved from <https://www.naacp.org/criminal-justice-fact-sheet/>
- Nally, J. M., Lockwood, S., Ho, T., & Knutson, K. (2014). Post-release recidivism and employment among different types of released offenders: A 5-year follow-up study in the United States. *International Journal of Criminal Justice Sciences, 9*(1), 16. Retrieved from <http://search.proquest.com/openview/a9975dd8ead235963fe586e9c76930d2/1?pq-origsite=gscholar>
- National Research Council. (2012). *Improving adult literacy instruction: Options for practice and research*. National Academies Press. Retrieved from <https://www.ride.ri.gov/Portals/0/Uploads/Documents/Students-and-Families-Great-Schools/Educational-Programming/Adult-Education-Standards/Improving-Adult-Literacy-Instruction-Research-report.pdf>
- National Skills Coalition (NSC). (2015). *Analysis of long-term occupational projections from state labor/ employment agency* [website]. Retrieved from <https://m.nationalskillscoalition.org/resources/publications/2017-middle-skills-fact-sheets/file/United-States-MiddleSkills.pdf>

- Nelson, M., Deess, P., & Allen, C. (2011). The first month out: Post-incarceration experiences in New York City. *Federal Sentencing Reporter*, 24(1), 72-75.
doi:10.1525/fsr.2011.24.1.72
- Office of Justice Programs Bureau of Justice Statistics. (2015) *Correctional populations in the United States 2014* [website]. Retrieved from
<https://www.bjs.gov/index.cfm?ty=pbdetail&iid=5519>
- O'Neil, M. (1990). Correctional higher education: Reduced recidivism? *Journal of Correctional Education*, 41(1), 28-31. Retrieved from
<https://www.jstor.org/stable/41970810>
- Ositelu, M. O. (2019, November 4). *Equipping individuals for life beyond bars: The promise of higher education and job training in closing the gap in skills for incarcerated adults*. Washington, D.C.: New America. Retrieved from
https://d1y8sb8igg2f8e.cloudfront.net/documents/Interior_Text_-_Life_Beyond_Bars_v3.pdf
- Palmer, S. M. (2012). Postsecondary correctional education: Recognizing and overcoming barriers to success. *Adult Learning*, 23(4), 163-169.
doi:10.1177/1045159512457918
- Pompoco, A., Wooldredge, J., Lugo, M., Sullivan, C., & Latessa, E. J. (2017). Reducing inmate misconduct and prison returns with facility education programs. *Criminology & Public Policy*, 16(2), 515-547. doi:10.1111/1745-9133.12290
- Rampey, B. D., Keiper, S., Mohadjer, L., Krenzke, T., Li, J., Thornton, N., & Hogan, J. (2016). Highlights from the U.S. PIAAC survey of incarcerated adults: Their skills, work experience, education, and training: Program for the International

- Assessment of Adult Competencies: 2014. *NCES, 2016(040)*. Retrieved from <https://nces.ed.gov/pubs2016/2016040.pdf>
- Reed, D. K. (2015). A Synthesis of the effects of correctional education on the academic outcomes of incarcerated adults. *Educational Psychology Review, 27(3)*, 537-558. doi:10.1007/s10648-014-9289-8
- Restoring Education and Learning Act of 2019, S. 1074, 116th Cong. (2019). Retrieved from <https://www.congress.gov/bill/116th-congress/senate-bill/1074/text>
- Rose, M. (2012). *Back to school: Why everyone deserves a second chance at education*. New York, NY: The New Press.
- Ruggero, T., Dougherty, J., & Klofas, J. (2015). Measuring recidivism: definitions, errors and data sources. *Center for Public Safety Initiatives, 3*. Retrieved from <https://www.rit.edu/liberalarts/sites/rit.edu.liberalarts/files/documents/our-work/2015-03%20-%20Measuring%20Recidivism%20-%20Definitions%2C%20Errors%2C%20and%20Data%20Sources.pdf>
- Sams, D. (2018, February 23). AU extends prison education programs to 3 states, D.C. [online article]. Retrieved from <https://www.times-gazette.com/special/20180228/au-extends-prison-education-programs-to-3-states-dc>
- Sard, R. & Dierking, R. (2017, December 26). Programs let inmates earn university degree while in prison [online article]. *Learning English*. Retrieved from <https://learningenglish.voanews.com/a/programs-let-inmates-earn-university-degree-while-in-prison/4169584.html>

- Schmidt, I. (2019 March 11). Ashland University's correctional education program changes lives [online article]. Retrieved from <https://au-live.com/6747/features/ashland-universitys-correctional-education-program-changes-lives/>
- Schunk, D. H. (2012). *Learning theories: An educational perspective* (6th ed.). Boston, MA: Pearson. Retrieved from http://repository.umpwr.ac.id:8080/bitstream/handle/123456789/96/%5BDale_H._Schunk%5D_Learning_Theories_An_Educational..pdf?sequence=1&isAllowed=y
- Shlacter, B. (1997, March 2). Educating prisoners for life - the Windham School District offers Texas inmates a chance to finish high school, go to college and put crime and prison behind them. *Fort Worth Star-Telegram*, p.1. Retrieved from <https://infoweb-newsbank-com.ezproxy.shsu.edu/apps/news/document-view?p=WORLDNEWS&docref=news%2F0EAF90F249076BCA>
- Skardhamar, T., & Telle, K. (2012). Post-release employment and recidivism in Norway. *Journal of Quantitative Criminology*, 28(4), 629–649. doi:10.1007/s10940-012-9166-x
- Slocum, L. A., Simpson, S. S., & Smith, D. A. (2005). Strained lives and crime: Examining intra-individual variation in strain and offending in a sample of incarcerated women. *Criminology*, 43(4), 1067-1110. doi:10.1111/j.1745-9125.2005.00033.x
- Smilkstein, R. (1991). A natural teaching method based on learning theory. *Gamut*, 12-15, 36. Retrieved from <https://files.eric.ed.gov/fulltext/ED382237.pdf>

- Smilkstein, R. (1993). Acquiring knowledge and using it. *Gamut*, 16-17, 41-43. Retrieved from <https://files.eric.ed.gov/fulltext/ED382238.pdf>
- Solomon, A. L. (2009, November 5). *The first line of defense: Reducing recidivism at the local level: Hearing before the Subcommittee on Crime and Drugs, of the Senate Judiciary Committee*, (statement of Amy L. Solomon). Retrieved from <https://www.urban.org/sites/default/files/publication/31006/901296-The-First-Line-of-Defense-Reducing-Recidivism-at-the-Local-Level.PDF>
- Stasio Jr., J. R. (2010). Prisoner recidivism: A question for social marketing. *Journal of Marketing Development and Competitiveness*, 5(1), 47. Retrieved from <http://www.na-businesspress.com/JMDC/StasioWeb.pdf>
- Stevenson, B. (2015). *Just mercy: A story of justice and redemption*. New York, NY: Spiegel & Grau.
- Taylor, J. M. (2005a). Alternative funding options for post-secondary correctional education (part one). *Journal of Correctional Education*, 65(1), 6-17. Retrieved from <http://www.jstor.org/stable/23282780>
- Taylor, J. M. (2005b). Alternative funding options for post-secondary correctional education (part two). *Journal of Correctional Education*, 56(3), 216-227. Retrieved from <http://www.jstor.org/stable/23282588>
- Texas Department of Criminal Justice. (2011). *Statistical report fiscal year 2011*. Retrieved from https://www.tdcj.texas.gov/documents/Statistical_Report_FY2011.pdf

- Texas Department of Criminal Justice. (2012). *Statistical report fiscal year 2012*. Retrieved from https://www.tdcj.texas.gov/documents/Statistical_Report_FY2012.pdf
- Texas Department of Criminal Justice. (2013). *Statistical report fiscal year 2013*. Retrieved from https://www.tdcj.texas.gov/documents/Statistical_Report_FY2013.pdf
- Texas Department of Criminal Justice. (2017, February). *Offender orientation handbook*. Retrieved from https://www.tdcj.texas.gov/documents/Offender_Orientation_Handbook_English.pdf
- Texas Department of Criminal Justice. (2019). Post-Secondary education programs (academic and vocational) [website]. *Rehabilitation Programs Division*. Retrieved from https://www.tdcj.texas.gov/divisions/rpd/ps_education.html
- Texas Prison Education Initiative. (2019). Why college in prison? [website]. Retrieved from <http://sites.utexas.edu/texasprisoneducation/>
- Texas State Library and Archives Commission. (2019). *Texas Department of Criminal Justice: An inventory of Department of Criminal Justice executive director administrative correspondence and subject files at the Texas State Archives, 1951, 1964, 1983-2001, bulk 1996-2001*. Retrieved from <https://legacy.lib.utexas.edu/taro/tslac/90014/tsl-90014.html>
- Travis, J., Solomon, A. L., & Waul, M. (2001). *From prison to home: The dimensions and consequences of prisoner reentry*. Washington, DC: Urban Institute. Retrieved from

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.212.6235&rep=rep1&type=pdf>

Urban Institute. (n.d.) *Measuring recidivism at the local level: A quick guide*, 1-4.

Retrieved from https://www.urban.org/sites/default/files/recidivism-measures_final-for-website.pdf

U.S. Department of Education. (2006). A test of leadership: Charting the future of U.S.

higher education. *Report of the Commission Appointed by Secretary of Education Margaret Spellings*. Retrieved from

<https://www2.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf>

Visher, C. A., & Lattimore, P. K. (2007). Major study examines prisoners and their

reentry needs. *NIJ Journal*, 258, 30-33. Retrieved from

https://www.prisonlegalnews.org/media/publications/nij_journal_article_on_reentry_issues_for_serious_and_violent_offenders_2007.pdf

Visher, C. A., Lattimore, P. K., Barrick, K., & Tueller, S. (2017). Evaluating the long-

term effects of prisoner reentry services on recidivism: What types of services

matter? *Justice Quarterly*, 34(1), 136-165. doi:10.1080/07418825.2015.1115539

Wang, E. (2017, January). WSD biennial evaluation and report. *Texas Tech University*

College of Human Sciences: Community, Family and Addiction Sciences, 1-12.

Retrieved from

https://wsdtx.org/images/PDF/other/2017/WSD_Biennial_Evaluation_Report.pdf

- Ward, S. A. (2009). Career and technical education in United States prisons: What have we learned? *Journal of Correctional Education* 60(3), 191-200. Retrieved from <https://www.jstor.org/stable/23282743>
- Wheeldon, J. (2011). Visualizing the future of research on postsecondary correctional education: Designs, data, and deliverables. *Journal of Correctional Education*, 62(2), 94-115. Retrieved from <https://www.jstor.org/stable/23282665>
- Wilson, D. B., Gallagher, C. A., & MacKenzie, D. L. (2000). A meta-analysis of corrections-based education, vocation, and work programs for adult offenders. *Journal of Research in Crime and Delinquency*, 37(4), 347-368. doi:10.1177/0022427800037004001
- Wilson, P. R. (1994). Recidivism and vocational education. *Journal of Correctional Education*, 45(54), 158-163. Retrieved from <http://www.jstor.org/stable/23291980>
- Windham School District. (2007). *Annual performance report school year 2007-2008*, 1-32. Retrieved from <https://wsdtx.org/images/PDF/annual/APR%202007-2008.pdf>
- Windham School District. (2008). *Annual performance report school year 2008-2009*, 1-27. Retrieved from <https://wsdtx.org/images/PDF/annual/APR%202008-2009.pdf>
- Windham School District. (2012). *Annual performance report school year 2011-2012*, 1-26. Retrieved from <https://wsdtx.org/images/PDF/annual/2011-2012.pdf>
- Windham School District. (2013). *Annual performance report school year 2012-2013*, 1-28. Retrieved from https://wsdtx.org/images/PDF/APR/2014/WSD-APR_2014-HR.pdf

- Windham School District. (2018). *Annual performance report school year 2017-2018*, 1-36. Retrieved from https://wsdtx.org/images/PDF/APR/2018/WSD-APR_2018-HR.pdf
- Windham School District. (2018, April 20). Student eligibility for Windham School District programs. *Windham Board Policy WBP-8.01 (rev4)*. Retrieved from <https://wsdtx.org/images/PDF/policy/8.01.pdf>
- Wlodkowski, R. J., & Ginsberg, M. B. (2017). *Enhancing adult motivation to learn: A comprehensive guide for teaching all adults*. San Francisco, CA: John Wiley & Sons.
- Yates, C. (2015, January 16). 'Returning citizens' are still one of D.C.'s most marginalized and motivated groups. *Washington Post*. Retrieved from https://www.washingtonpost.com/news/local/wp/2015/01/16/returning-citizens-are-still-one-of-d-c-s-most-marginalized-and-motivated-groups/?utm_term=.6fb2e11892dd
- Yilmaz, K. (2011). The cognitive perspective on learning: Its theoretical underpinnings and implications for classroom practices. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 84(5), 204-212.
doi:10.1080/00098655.2011.56898

VITA

Curriculum Vitae for
Amy K. Lopez

Academic Degrees

Doctoral candidate, Sam Houston State University, Developmental Education
Administration
(current)

Master of Education, Lubbock Christian University, Mid-Management,
Educational Administration
(1999-2001)

Bachelor of Science, Texas Tech University, Theatre Arts, Secondary Education,
Cum Laude Graduate
(1981-1985)

Professional Licensure and Certifications

Principalship, West Texas A&M University (2002)

Superintendency, West Texas A&M University (2005)

Professional Experience

August 2017-present Deputy Director of College & Career Readiness and Professional Development for the District of Columbia Department of Corrections (full time); (May 2019-Present, part-time) Director of Programs for the Lone Star Justice Alliance

January 201-August 2017 Federal Bureau of Prisons, Chief Education Administrator (Federal Appointment)

2015-2016 Windham School District, Director of Instruction (Texas Department of Criminal Justice)

2010-2015 Texas Juvenile Justice Department
2010-2011 Principal
2011-2015 Superintendent of Education

2007-2010 The Woodlands Financial Group, Owner

2005-2007 Hereford Independent School District, Secondary Principal

2002-2005	Canyon Independent School District 2002-2003 Secondary Teacher, English 2003-2005 Assistant Principal, Secondary
2001-2002	Plainview Independent School District, Secondary Teacher, Theatre
1999-2001	Lubbock Christian University, Graduate Teaching Assistant and Researcher
1991-1999	Petersburg Independent School District Secondary Teacher, Theatre, Speech Communications, Reading, & Art
1986-1987	New Home Independent School District Secondary Teacher, Theatre, Art, English

Career Highlights

2019-2020 as Deputy Director of College & Career Readiness and Professional Development, DC Department of Corrections (DC DOC):

- Created and implemented an educational delivery system by which all inmate students received new and continued with existing educational services during the COVID-19 pandemic medical stay-in-place order.
- Forged a partnership with the national Inside Out Prison Exchange Program to establish the DC DOC as a national training site.
- Established the DC DOC as a regional training site for Thinking for a Change.
- Implemented courses for inmates in coding, robotics, and multi-media design.
- Implemented a Learning Management System on inmate tablets for creation of courses and curricula designed by DOC instructors and university and community-based partners.
- Added two additional university partnerships the Division of College and Career Readiness.
- Developed agency-wide training in response to the Coronavirus and medical stay-in-place orders for the DC DOC.
- Developed and implemented a distance-learning and paper-based platform for all residents of the DC DOC during the Coronavirus pandemic medical stay-in-place order.
- Certified as Thinking for a Change instructor/trainer

2019-2020 as Director of Programs for Lone Star Justice Alliance (LSJA) (part time/consulting):

- Designed Positive Behavior Interventions and Support (PBIS) framework

- Wrote the LSJA staff manual and participant manuals for both county programs
- Designed a community engagement incentive program

2018-2019 as Deputy Director of College & Career Readiness and Professional Development, DC Department of Corrections (DC DOC):

- Oversight of all staff training and professional development at agency's Center for Professional Development and Learning.
- Revised and implemented staff pre-service and in-service training and Basic Corrections Training for Correctional Officer cadets.
- Created, implemented and co-taught Leadership Unlocked training series for supervisory correctional officers.
- Created and implemented 40-hour leadership training for inmate mentors.
- Created and implemented Literacy Instructor Training (LIT) program for inmate instructors.
- Implemented tablet program for incarcerated students' academic and CTE enrollment.
- Added American University Inside Out program to student opportunities.
- Created and implemented a mixed media curriculum for students designed to teach digital skills in the Adobe ® Creative suite through which they learned the principles of design, created a facility-wide pod cast, published their personal narratives, and produced a variety of personal and agency projects.
- Created a multi-cultural specialized housing unit that focused on education, where residents not only participated in various college and career readiness programs, but also learned each other's languages, backgrounds, and cultural histories.
- Forged a partnership with the Pulitzer Center, providing award-winning journalists for speaking/teaching engagements weekly for students.
- Created and implemented 40-hour training for correctional professionals working with emerging adults.

2018-2019 as Director of Programs for Lone Star Justice Alliance (LSJA) (part time/consulting):

- Invited to be a founding team member of LSJA, a non-profit diversionary program designed to reduce incarceration of and improve outcomes for children and emerging adults.

2018-2019 Leadership roles:

- District of Columbia Executive Office of the Mayor (EOM) Second Cabinet member
- Federal Government Action Learning Community of Practice (ALCOP) advisor
- Leadership Excellence Achievement Program (LEAP) advisor (federal leadership program)

- Leadership Excellence Achievement Program (LEAP) Mentor
- Correctional Education Association representative on the Federal Reentry Working Group
- Federal Liaison for the Correctional Education Association
- American Correctional Association Education Delegate
- Invitation-only Vera Institute's *Restoring Promise* summit, Montgomery, Alabama.
- Invitation-only Emerging Adult Justice Project Summit, Columbia University, New York, N.Y.
- Invited key-note speaker at the National Second Act Symposium, Washington, D.C.

2017-2018 as Deputy Director of College & Career Readiness and Professional Development, DC DOC:

- Led the newly created Division of College and Career Readiness for the DC DOC.
- Co-founded the Young Men Emerging (YME) unit at the DC DOC, designed as a therapeutic and educational environment and community for young men aged 18-25 incarcerated in the DC DOC.
- Implemented post-secondary opportunities for inmate-students:
 - Partnered with Georgetown University's Prison and Justice Institute to implement the Georgetown University Prison Scholars Program, offering for-credit courses to inmates in the DC DOC, leading to a Bachelor's degree.
 - Partnered with Ashland University to offer 6 credit-bearing courses to students who are eligible for the Second Chance Pell Grant. Courses are offered at no cost to students and no cost to DC DOC. Course work is offered via a distance learning management system on an Android tablet, provided by the university to students. In addition to the AU learning system, tablets also host a variety of educationally oriented programs, as well as a PREA approved library and radio programming.
 - Partnered with Georgetown University to offer college-level, non-credit bearing courses as a pilot program in anticipation of full implementation of credit-bearing courses leading to degrees.
 - Partnered with Howard University to expand an Inside Out Program and enhance postsecondary offerings for women.
- Secured Carl D. Perkins grant funds for the first time in the history of the DC DOC. With those funds, implemented five industry certification CTE training programs for inmates in middle-skill STEM career pathways, an employability soft skills program, and a Communication Pathway Series course specifically designed for juvenile students that presents STEM topics featuring telecommunications and technology as a backdrop to explore cross-

curricular material and lab activities designed for secure environments in history, science, math, language arts, problem-solving, and career awareness.

- Implemented a literacy program to serve inmates functioning below the 6th grade level.
- Created a Commercial Cleaning instructional program for inmate detail workers and the general population.
- Launched a Graphic Design/Journalism course that provides the nucleus for an inaugural, inmate-generated newspaper. Students curate, edit, and publish each edition in partnership with a local print business who provides technical assistance, a guest lecture series, and all print services/costs. The point of contact for this partnership is a returning citizen.
- In partnership with the National Institute of Corrections, implemented Thinking for a Change curriculum, an integrated cognitive behavioral change program that incorporates research from cognitive restructuring theory, social skills development, and the learning and use of problem-solving skills. Hired and trained a returning citizen to oversee the program.
- Implemented Master Class events offered regularly to all residents, geared to subjects that prepare participants within 90 days of release for post-release transition to career pathways, employment, post-secondary opportunities, and employability soft skills necessary to attain and sustain employment. Classes are offered by Community Based Organizations, DC agency partners, higher education partners, and industry experts.
- Piloted an entrepreneurship program in concert with Open for Business Ventures, giving inmate students the opportunity to complete course work on an Android tablet and transition to free-world business assistance upon release.
- Implemented a rigorous professional development plan for DC DOC teachers and instructors through the creation of Communities of Practice that capitalize on partnering with educational and industry partners to address essential, professional skills.
- Participated in and organized PBS filming of Department of College and Career Readiness students in the Free Minds Prison Book club, a local non-profit working with DC DOC juvenile offenders. The segment is part of PBS' America Reads series.
- Organized the DC DOC leadership team to visit successful programs in the area of juvenile offenders incarcerated in adult prisons and was an integral member of the team tasked with designing a restorative, therapeutic environment for DC DOC youth ages 18-25 (Young Men Emerging unit).
- Assumed oversight of all DC DOC staff training and professional development.
- Headed a team of professional development trainers in the DC DOC's newly constructed Center for Professional Development and Learning.

- Interned with Dr. Peter Leone of the University of Maryland: legislative proposal for creating a governing school board for Juvenile Justice Education in Maryland.
- Researched and drafted Leadership Competencies that linked professional development offerings to DC Employee Performance Plans.
- Implemented College and Career Fairs for students and Professional Development and Career Fairs for employees.
- Created Jump Start guides for DOC staff, outlining the pathway and requirements for promotions to each agency supervisory position.

2017-2018 Leadership roles:

- District of Columbia Executive Office of the Mayor (EOM) Second Cabinet member
- Federal Government Action Learning Community of Practice (ALCOP) advisor
- Leadership Excellence Achievement Program (LEAP) advisor (federal leadership program)
- Leadership Excellence Achievement Program (LEAP) Mentor
- Advisor Bellwether Education Partners and Carnegie Corporation (Streamlining Services for Students Experiencing Education Disruption)
- Member of DC Council Education Workgroup: Students in the Care of DC
- CEA representative on the Federal Reentry Working Group
- Invitation-only member of the Vera Institute's Restoring Promise: Bringing the Past to the Present in Reform Convening, November 11013, 2018, Montgomery, Alabama
- Invitation-only member of Columbia University's Emerging Adults and Justice Reform Summit: International Perspectives on Research and Practice

2016-2017 as Chief Education Administrator, Federal Bureau of Prisons:

- Appointed by US Deputy Attorney General Sally Q. Yates to build a school district within the Federal Bureau of Prisons.
- Successfully drafted and negotiated with union joint policy committee to implement policy requiring federal prisons to assess and provide services for inmate students identified with or suspected of having a learning disability.
- Created a foundation for assessing educational achievement of all students enrolled in literacy courses.
- Created a structure that allowed for the enrollment and tracking of students in appropriate literacy courses.
- Created a five-year improvement plan for the division of education, including the creation of standardized literacy courses, career and technical education programming resulting in nationally recognized industry certification, improved systems design, and expanded recreational programming.
- Completed the implementation of computer-based testing for high school equivalency assessments in all agency facilities.

- Designed an organizational structure to improve efficacy of education and recreation programming.
- Implemented standardized curricula for all literacy courses.
- Created systems for improved data-driven decision making.

2016-2017 Leadership roles:

- Federal Interagency Reentry Council
- Federal Interagency Reentry Roundtable
- Invited Mentor for Women in the Department of Justice
- Federal Interagency Continuity of Care Reentry Council
- Federal Government Action Learning Community of Practice (ALCOP) advisor
- White House Leadership Development program advisor
- Leadership Excellence Achievement Program (LEAP) advisor (federal leadership program)
- Leadership Excellence Achievement Program (LEAP) Mentor

2015-2016 as Director of Instruction for the Windham School District

- Direct oversight of staff and programming for 92 campuses and 63,000 student inmates (adult corrections)
- Expanded Career and Technical Education (CTE) training programs with implementation in 10 state jails
- Increased number of industry certifications earned by students from 5,000 to 26,000
- Implemented academic programming that increased student reading gains to 2 years and 7 months for every 220 days of instruction (highest in the nation).
- Reorganized CTE training courses to include only programs with a nationally recognized industry certificate and revised practice of retaining students past the number of required hours for certification to improve student success and increase enrollment
- Implemented CTE training courses to answer labor market need for middle skill STEM jobs
- Implemented Reentry and Workforce department to establish industry partnerships and application process for offender students pre and post-release
- Assisted and/or initiated research projects regarding the cost benefits of educational programming in the WSD and the impact of educational programming on post-release outcomes such as recidivism, wage earning potential, and employment.
- Restructured Special Education, Section 504, and English as a Second Language services to bring them into federal and state compliance
- Piloted a high school diploma program (district received authorization to issue diplomas in 83rd legislative session) and initiated expansion for two additional campuses in SY 2016-2017

- Established a dual credit program delivered via technology as a pilot at one campus with plans to expand through partnerships with additional community colleges across the state in SY 2016-2017
- Partnered with the AP College Board to create CLEP prep courses for postsecondary opportunities for students
- Partnered with Texas Tech University to design a data dashboard for efficient data-decision making for central administrators and field staff
- Standardized curriculum and aligned with standards for high school equivalency program (Adult Secondary Education ASE) and Adult Basic Education (ABE) literacy programs.

2012 Founding member of nation-wide consortium for state superintendents and directors of juvenile justice education agencies (now managed by Center for Educational Excellence in Alternative Settings CEEAS)

2011-2015 as Superintendent of Education for the Texas Juvenile Justice Department:

- Direct oversight of staff and programming for six maximum security facilities with 1200 student inmates (aged 10-19)
- Participated in Youth in Custody Certification Program, Georgetown University
- Created and implemented postsecondary Career Academies for incarcerated youth
- Implemented Project Based Learning in juvenile justice schools
- Standardized curriculum and aligned with graduation standards for high school diploma program
- Designed and implemented a student Personal Opportunity Plan (POP) for every student at intake
- Designed and implemented a student education orientation curriculum
- Implemented Positive Behavior Interventions and Support as framework for defining, teaching, and supporting appropriate behaviors in juvenile justice schools
- Improved student performance outcomes in reading and math growth and number of high school equivalency certifications earned to highest in agency history
- Implemented student 1:1 tablet deployment and use of student wi-fi in maximum security facilities
- Designed and implemented a Professional Learning Plan (PLP) for every teacher to be used throughout the school year for professional growth and performance evaluation
- Designed and implemented district and campus report cards, measurement instruments aligned with district goals, and tools designed to measure the fidelity of implementation of initiatives
- Designed and implemented Orientation and Onboarding curriculum and training for newly hired teachers and administrators

- Led the district to federal and state compliance in answer to pending litigation for special education non-compliance
- Audited educational programming at contract-care facilities

Consulting Roles

- Lone Star Justice Alliance
- Justice System Restart Initiative, Illinois
- Free Minds Book Club and Writing Workshop, District of Columbia
- C-Tech Associates
- American Prison Data Systems
- Bellwether Education Partners and Carnegie Corporation

Peer-Reviewed Publications

1. Bellwether Education Partners. (2018). Mitigating the impacts of instability: Services for all students experiencing education disruption [A. Lopez contributor].
2. Lopez, A., Williams, J. K., & Newsom, K. (2015). PBIS in Texas Juvenile Justice Department's Division of Education and State Programs: Integrating programs and developing systems for sustained implementation. *Residential Treatment for Children & Youth*, 32(4), 344-353. doi:10.1080/0886571X.2015.1113460
3. Scheuermann, B. K., Duchaine, E. L., Bruntmyer, D. T., Wang, E. W., Nelson, C. M., & Lopez, A. (2013). An exploratory survey of the perceived value of coaching activities to support PBIS implementation in secure juvenile education settings. *Education and Treatment of Children*, 36(3), 147-160. doi:10.1353/etc.2013.0021

Legal/Legislative Reports

1. Lopez, A., & Crenshaw, L. (2015). *Special education issues for incarcerated youth*. (Chapter content). Special Education, Child Welfare, and Juvenile Justice System: Texas State Bar.
2. Lopez, A., & Wyatt, C. (2014). *Texas Juvenile Justice Department School System*. (Chapter 7). Special Education, Child Welfare, and Juvenile Justice System: Texas State Bar.
3. Texas Juvenile Justice Department, & United States of America. (2012). *Effectiveness of positive behavioral interventions and supports: A report to the Texas Legislature*. Retrieved from <https://www.tjjd.texas.gov/publications/reports/PBISLegislativeReport2012-12.pdf>

International/National Presentations

1. Lopez, A. (May 20, 2020). *Using Technology for Students in a Carceral Space*. Prison to Ph.D. Leadership Symposium. Virtual presentation.
2. Lopez, A. and Finn, A. (January 12, 2020). *Strategies to Transform a Program-Free into a Program-Rich Facility*. American Correctional Association. San Diego, CA.
3. Lopez, A. (December 15, 2019). *Social Contracting for LEAP Teams*. U.S. Department of Justice, Washington, D.C.
4. Lopez, A. and Simmons, T. (August 14-16, 2019). *Parens Patriae: The Best Interest of the Children of Incarcerated Parents*. International Coalition of Children of Incarcerated Parents. Huddersfield University, Huddersfield, UK.
5. Lopez, A. and Simmons, T. (June 13, 2019). *Building a College & Career Readiness Division in a Carceral Space*. Mid-Atlantic States Correctional Association Conference. Washington, D.C.
6. Lopez, A. (April 22, 2019). Rethinking correctional and reentry education: A second chance at learning. *National Second Act Symposium, U.S. Department of Education*. Washington, D.C.
7. Lopez, A. (December 7, 2018). *Programme for the International Assessment of Adult Competencies Conference*. [invited discussant]. Arlington, VA.
8. Lopez, A. (November 30, 2018). *DC DOC/DCPL Partnership*. [interviewed by CSPAN Book TV].
9. Lopez, A. (September 26, 2018). *Building a Culture of Assessment: Tangible Principles, Values, and Respect*. Advanced Learning Institute. Nashville, TN.
10. Lopez, A. (September 25, 2018). *Do Prisons Rehabilitate?* John Jay College Smart on Crime: Innovations Conference 2018, New York City, NY.
11. Lopez, A. (September 14, 2018). *The Use of a Social Contract to Create a Self-Managing Team*. Presented at Leadership Excellence Achievement Program (LEAP), Office of Justice Programs, Washington, DC.
12. Lopez, A. (April 19, 2018). *The Use of a Social Contract to Create a Self-Managing Team*. Advanced Learning Institute: Strategic Internal Communications for Government. Washington, DC.
13. Lopez, A. (March 14, 2018). *CEPA Policy & Practice, ASB-Mass Incarceration*. Invited panel speaker for the Center for European Policy Analysis on issues around the practice of mass incarceration to students from the University of Massachusetts, Amherst
14. Lopez, A. (March 9, 2018). Interviewed by NY Times as national expert in correctional education reform. Washington, DC.
15. Lopez, A. (November 16, 2017). *Using a Staff Social Contract*. Presented at Leadership Excellence Achievement Program (LEAP), Office of Justice Programs, Washington, DC.
16. Lopez, A. (March 8, 2017). *Women in Leadership*. Presented at Women in in the Department of Justice flash mentoring event, Washington, DC.
17. Lopez, A., & Scheuremann, B. (September 24, 2015). *Better uses of data for monitoring PBIS process and outcomes in secure juvenile residential settings*. Presented on paper at Council for Children with Behavioral Disorders International Conference, Atlanta, GA.

18. Lopez, A. (February 14, 2014). *Office space with flair: Virtual leadership*. Invited presentation for the Texas Computer Education Association International Convention and Exposition, Austin, TX.

State/Local Presentations

1. Lopez, A. (September 13, 2019). *The Role of Correctional Institutions in Successfully Preparing Returning Citizens for Reentry*. R4: Rehabilitation, Reform, and Reentry Resources, Inc. 2019 Inaugural Fundraiser Keynote. Upper Marlboro, MD.
2. Lopez, A. (September 21, 2018). *College and Career Readiness in the DC DOC*. 2018 DC Prisoner and Reentry Symposium: Envisioning a New Jail. Washington, DC.
3. Lopez, A. & Simmons, T. (September 15, 2018). *Academic Excellence and Cultural Diversity in DC DOC and Howard University Classrooms*. Howard University, Washington, DC.
4. Lopez, A. (January 24, 2018). *College and Career Readiness for Incarcerated Populations*. DC DOC Stat Meeting, Washington, DC.
5. Lopez, A., & Crenshaw, L. (June 12, 2015). *Special education issues for incarcerated youth*. Presented on paper for Texas State Bar annual Special Education, Child Welfare, and Juvenile Justice System annual conference, Austin, TX.
6. Lopez, A., & Taliaferro, L. (January 28, 2014). *Inside the Texas Juvenile Justice Department's education services*. Invited presentation at the Texas Association of School Administrators Midwinter Conference, Austin, TX.
7. Lopez, A., & Wyatt, C. (June 13, 2014). *Texas Juvenile Justice Department School System*. Presented on paper for Texas State Bar Annual Special Education, Child Welfare, and Juvenile Justice System annual conference, Austin, TX.
8. Lopez, A. (June 18, 2014). *Office space with flair: Virtual leadership*. Invited presentation for the Texas Association for Supervision and Curriculum Development annual conference, Frisco, TX.
9. Lopez, A. (October 8, 2014). *Overview of education programs in the Texas Juvenile Justice Department*. Invited testimony to the House Committee on Corrections of the 83rd Texas Legislature, Austin, TX.
http://tlchouse.granicus.com/MediaPlayer.php?view_id=28&clip_id=9234
10. Lopez, A., Smith, B., & Pugh, J. (November 17, 2014). *A systems comparative for juvenile justice education*. Presented on paper at Region V Correctional Education Association conference, San Antonio, Tx.
11. Lopez, A. (November 18, 2014). *PBIS implementation in TJJD schools*. Presentation on paper at Region V Correctional Education Association conference, San Antonio, Tx.

Honors and Awards

- 2019 DC Department of Corrections Making a Difference Award

- 2019 Mid Atlantic Correctional Association’s Sal Russoniello Service Award
- 2000 Kappa Delta Pi, International Honor Society
- 2004 Texas School Safety Award, secondary school campus anti-bullying program
- 1990 South Plains Teacher of Excellence
- 1985 Golden Key National Honor Society

Board Member

2011-2015 Texas Workforce Commission System Integration Technical Advisory Committee
 2015-2016 Texas Council for Adult Literacy
 2019-present Elected Delegate for the American Corrections Association

Professional and Academic Association Memberships

- Correctional Education Association
- Texas Association of School Administrators
- National Association for Developmental Education
- International Literacy Association
- Coalition of Adult Basic Education
- American Correctional Association

Professional Teaching Certifications

Secondary Art, LifeGifted and Talented, Provisional
 Secondary Drama, LifeProfessional Development Appraisal System
 Secondary English, LifeTexas Teacher Evaluation and Support System
 Secondary Reading, LifeTexas Principal Evaluation and Support System
 Principal, ProvisionalInstructional Leadership Development
 Superintendent, Provisional