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## Relationship Between Correctional Support Programs and Incarceration Rates in a Southeast U.S. State

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## Walden University

College of Social and Behavioral Sciences

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Walden University 2020

#### Abstract

Relationship Between Correctional Center Support Programs and Incarceration Rates in a Southeast U.S. State

by

Laverne Jane Knight

MPA, Auburn University Montgomery, 2016

MIR, Auburn University Montgomery, 2012

B Ed., University of Regina, 1995

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Public Policy and Administration

Walden University

November 20

#### Abstract

Released prisoners continue to relapse into criminal behavior resulting in high incarceration rates. The purpose of this quantitative correlational study was to examine the relationship between incarceration rates and program support types in a Southeast U.S. correctional institution. Maslow's theory of human motivation provided the framework for the study. The research question addressed whether a correctional center's programs (general education development and vocational certificates) predict its incarceration rates. Secondary data from the correctional center's website were analyzed using multiple linear regression. Findings indicated that GED was not significantly related to incarceration rates, but vocational certificates showed a significant relationship to incarceration rates. Findings may be used to improve correctional programs and reduce their incarceration rates.

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#### Dedication

This dissertation is dedicated to my husband Tim, and to my children A.J., Denny, Luke and Will. Without their love and support I would not be able to complete this work. I would also like to dedicate this to my mom and dad Luke and Marjorie Nanaquetung. Mom, who is in heaven, was persistent in encouraging me to earn my Ph.D. Dad, was always beside her smiling with approval. Dad died on September 21, 2020.

As an eight year old child my Pastor Karl Kienle and his assistant Freddie Keshane prayed over me when I told them I wanted to be a scientist when I grew up. Finally, I would like to dedicate this dissertation to the one who made me. My Daddy, my Creator, my true Father...my friend Jesus Christ! If Jesus Christ were physically walking this Earth today, He would not be sitting with the elite of this world, rather, He would be sitting and comforting the openly lost souls of prisoners throughout this world.

#### Acknowledgements

I would like to thank Dr. Daniel Jones, my committee chair for his encouraging words and his belief in me throughout the challenges of this whole process. Secondly, I would like to thank Dr. Linda Sundstrom, my committee member, for her challenging intelligent questions and for always bringing me up with her uplifting texts when I was down. I also acknowledge Dr. Kristie Roberts Lewis, my URR committee member, for her perfection in combing through my dissertation and recognizing details that needed polishing. Without each of your input, this dissertation would not be as robust and complete!

### Table of Contents

List of Tables.	iv
List of Figures	v
Chapter 1: Introduction to the Study	1
Introduction	1
Background	2
Problem Statement	5
Purpose of the Study	7
Research Questions	8
Theoretical Framework	8
Nature of the Study	10
Definitions	11
Assumptions	12
Scope and Delimitations.	13
Limitations	13
Significance	14
Summary	16
Chapter 2: Literature Review	18
Literature Search Strategy	18
Theoretical Foundation	20
Maslow's Hierarchy of Needs	20
Hierarchy of Needs and the Inmate's Classroom	21
Literature Review Related to Key Concepts and Variables	26

	American Incarceration Rates	29
	Recidivism	40
	Prevention Programs for Recidivism	43
	General Education Development.	48
	The Validity of the GED.	49
	Core Subjects and Content of the GED.	51
	Changes to the GED.	51
	GED in the Correctional Centers.	57
	Vocational Certificates.	58
	Summary and Conclusions	67
Chapte	er 3: Research Method.	69
	Introduction	69
	Research Design and Rationale.	69
	Methodology	71
	Threats to Validity	73
	Ethical Procedures.	75
	Summary	76
Chapte	er 4: Discussion	78
	Introduction	78
	Data Processing.	79
	Time Frame for Data Processing.	79
	Discrepancies in Data Processing.	79
	Characteristics of Individuals.	79

	How the Data was Recorded	80
Resul	lts	82
	Descriptive Statistics.	83
	Model Summary	83
	Anova	84
	Coefficients	85
	Histogram 1: The Dependent Variable Incarceration Rate	86
	Histogram 2: The Independent Variable Completed GED	87
	Histogram 3: The Independent Variable Completed Vocational Certificate	88
	Research Questions.	89
	Hypotheses	90
Sumr	nary	91
Chapter 5		93
	Discussion and Interpretation of the Findings.	94
	Incarceration Rates and Prison Programs	94
	Theory of Needs Applied to Research Question and Hypotheses	97
	Histograms and the Variables	98
	Limitations of the Study	99
	Recommendations	100
	Implications	101
	Positive Social Change	101
	Conclusions	102
References		104

### List of Tables

Table 1. Adapting Liu's Model on Maslow's Hierarchy of Needs into the Classroom Setting	ţ23
Table 2. 2016 Highest Prison Facility Capacities in United States	33
Table 3. Total Correctional Population.	36
Table 4. Correctional Institutions from 2000-2005.	38
Table 5. American Recidivism Ethnicity Rate for Males Released After Serving Assault Sentences in 30 States from 2005 to 2014 updated in 2018	42
Table 6. Distribution of Certificates below the Associate Degree Level from 2008 to 2017 in USA	62
Table 7. Variables and Sources.	70
Table 8. SPSS Input: Variable View	81
Table 9 SPSS Output: Data View.	82
Table 10 Descriptive Statistics.	83
Table 11. Model Summary	84
Table 12. Anova.	85
Table 13. Coefficients.	85

## List of Figures

Figure 1.	Histogram Dependent Variable:	Incarceration Rate	.87
Figure 2	Histogram Independent Variable	Completed GED.	.88
Figure 3.	Histogram Independent Variable	e: Completed Vocational Certificate	.89

#### Chapter 1: Introduction to the Study

#### Introduction

Criminals are individuals who break societal laws. In many cases, after being released from correctional facilities, criminals continue to break laws even after being imprisoned for some time. The idea of a criminal continuously breaking the law is a phenomenon, with causes stemming from factors, such as behavior and society's implications on the individual.

Lack of community support could be a factor in high incarceration rates, and individuals relapsing into criminal behavior. *Community* refers to a group of people living together with shared faiths and creeds (Qi-ping, 2020). The community in the current study was a correctional department in which incarcerated individuals shares-similar characteristics. Some of these characteristics include drug addiction, alcohol addiction, mental health problems, lack of education, and lack of job skills.

Correctional center support types vary in the form of education and vocational certificate programs to aid the inmate in the process of re-entering into society. Though researchers have examined programs offered to inmates, research on the relationship between incarceration rates an correctional center programs is limited. In addition, not only is the inmate population increasing, but non-English-speaking students in correctional centers throughout the United States are also increasing resulting in a need for better understanding of programs offered to inmates (Gardner, 2017). Examining the types of support services for inmates and the number of inmates who complete the programs in their detained institution may address the effectiveness of the programs. Further, a better understanding of prison programs may be used to improve the programs, which may result in a reduction in incarceration rates and a positive impact on the individuals reentering society. This chapter includes the background of the study, problem

statement, purpose of the study, research question, theoretical framework, nature of the study, definitions, assumptions, scope and delimitation, limitations, significance, and summary.

#### **Background**

Individuals who are incarcerated in correctional centers, along with their past criminal behaviors, is a phenomenon that social scientists continue to research. However, the reasons why formerly incarcerated individuals continue to commit crimes are poorly understood (Fabelo & Thompson, 2015). The overall incarceration rates in different jurisdictional correctional facilities are high, and inmates completing correctional center programs does not always lead to a reduction in incarceration rates. The design capacity for the California Correctional Center is 89,763, and the custody population at 117,557 (Bureau of Justice Statistics, 2019). However, the availability of correctional center programs does not increase job skills in specific areas and chances of employment after incarceration. Higher levels of critical thinking skills can result from specifically designed programs offered by a Prison (Wyant & Lockwood, 2018). According to Wyant and Lockwood's (2018) study on transformative learning and higher-order thinking, completing the programs offered by the correctional institution will result in higher levels of thinking for the male and female inmates to the extent that they will be able to use good critical thinking skills that are essential for good decision-making. Though Wyant and Lockwood focused on female inmates, it has become evident that both genders share similar characteristics regarding incarceration rates. Though there is a 30% gender gap in incarceration that is unexplained between men and women, women are less likely to commit nonviolent crimes than men (Butcher, Park, & Piehl, 2017).

Recurrence of incarceration between different genders is evident in terms of types of criminal behavior. Male prisoners in 2017 were 13 times higher than female prisoners (Weidner

& Schultz, 2019). Prinsloo (2016) found that females who had a history of violence were more at risk of reoffending resulting in female reincarceration. Some factors, such as addition, also contribute to recidivism. Solinas-Saunders and Stacer (2017) concluded that female incarceration of ex-offenders resulted from exposure to drug addition, unemployment, drug abuse, and parental incarceration. Ducat, McEwan, and James (2017) showed the addiction of fire-setting as an example of how recidivism cannot be limited to some crimes and how factors of recidivism are unique.

Recidivism might also stem from a variety of experiences and stages in life, such as adolescents. Juveniles who cannot control their anger are more likely to recidivate (Lawing, Frick, Childs, & Vincent, 2017). Though the current study focused on the adult population of incarcerated individuals, understanding how recidivism stems from a contributing factor such as adolescent years may provide a deeper understanding of adults relapsing into criminal behavior. When people are released from prison, they are confronted with a series of barriers such as unemployment, debt, shelter, and childcare (Semenza & Link, 2019). The challenges of individuals who have been in prison include social conditions such as homelessness (Nyamathi et al., 2018). Individuals who relapse into criminal behavior is a persistent problem.

Though the relationship between criminal behavior and drug dependency increase recidivism, there are other methods to reduce the chances of persons relapsing into criminal behavior. Reentry programs focusing on drug addiction and mental health for incarcerated males and females can reduce recidivism (H. Miller, Miller, & Barnes, 2016). Other means to reduce recidivism for females are female drug courts, which have been shown to lower the chances of recidivism due to females' increased presence in judicial hearings, drug screening, and other required treatments (Myer & Buchholz, 2018). Dialectic behavior treatment corrections

modified programs also reduced recidivism rates (Nyamathi et al, 2018). In understanding why individuals relapse into criminal behavior, tools such as the Level of Service Inventory (LSI) are also used to predict violence leading to recidivism.

Geraghty and Woodhams (2015) examined the validity of different devices, such as the LSI, and found that applied programs' practical tools can reduce the likelihood of reincarceration. The emotional reaction of impulse reaction prior to criminal activity was not a factor considered in examining the validity of the LSI tool. The LSI is a tool utilized by states to identify offenders' risks in relapsing into criminal behavior. The LSI is a 54 semi-structured interview-based instrument, and it is one of the widely used risk assessments in North America (Geraghty & Woodhams, 2015). The LSI is used for people who are under community supervision or incarcerated, and it measures 10 domains in the area of criminal history, 10 items in education/employment, two items in finance, four items in family and marital status, three items in accommodation, two items in leisure and recreation, five items in companions, nine items in substance abuse, five items in emotional and personal feelings, and four items in attitudes (Rocque & Plummer-Beal, 2014).

An impulse is also a factor that contributes to an individual's likelihood of relapsing into criminal behavior. Weizmann-Henelius, Virkkunen, Gammelgard, Eronem, and Ptkonen (2015) concluded that impulsivity was a significant factor in violent recidivism. Knezevic (2018) suggested there are differences between men and women in combination with social factors and health factors that influence impulse controls. Shin, Cook, Morris, McDougle, and Groves (2016) suggested that impulsivity as an unplanned or external stimulus with no regard for negative consequences is one of the strongest connections to crime. In both male and female inmates, the impulsivity factor leading to recidivism or incarceration can be avoided using a self-

help strategy of participating in correctional center programs. However, there is a gap in the literature regarding the relationship between incarceration rats and correctional institutional support programs offered to prisoners, including the General Education Development (GED) and vocational programs.

Christy, Dennis, ad Lurigio (2017) looked at management checkups on treatment participation in connection to reentry programs and found a reduction in recidivism and incarceration rates if there is a participation in treatment centers and if the incarcerated individuals applies self-help. The application of self-help utilizing different types of programs offered by correctional centers is essential for their plans to be effective (Christy et al., 2017). Some programs that can be utilized in the correctional center are GED programs or vocational certificate programs. Though studies are limited in measuring the relationship between correctional center programs and incarceration rates, a recent meta-analysis by RAND Corporation researchers as cited in Siegel, 2016) indicated that individuals who complete GED programs and vocational education programs during incarceration are at 64 percent of the odds in recidivating. By using self-help or interest in the program, the effectiveness of participating in prison programs will lead to a successful outcome in reducing the chances of reincarceration. Therefore, if the incarcerated inmate is willing to apply self-help, the correctional support program also needs to develop creative directions in motivating and encouraging the participant to be able to self-help or self-actualize. Though there are compiled data on incarceration rates and recidivism there are minimal data on incarceration rates and prison programs. The current study addressing the relationship between incarceration rates and correctional center programs may be useful for policymakers and politicians.

#### **Problem Statement**

There was minimal information on the relationship between prison programs in the correctional institutions in the Southeast United States and incarceration rate outcomes. I addressed the gap in the literature regarding the lack of information on the relationship between high incarceration rates and correctional institutional programs in the Southeast United States. With a gap in prison policy research and clarity, more correctional dollars are diverted to medical services for long-time offenders (Schartmueller, 2015). Prison policy research needs to focus on prison programs that will increase critical thinking skills for incarcerated individuals. If inmates were offered a vocational certificate and GED opportunities, high incarceration rates might be minimized and challenges of reentry into society might be reduced. Female inmates and male inmates share similar problems when they are reentering society. One of the shared problems between female and male inmates is the economically distressed communities that are confronted upon arrival (Baskaran, 2019). A specific problem encountered by individuals when reentering society is the minimal education or program support received during prison incarceration. A correctional center's core purpose in restricting certain rights and freedoms of the offender can impose patterns of learned helplessness on the prisoner making it more difficult to learn (Carver & Harrison, 2016).

There is a wide range of challenges that the ex-prisoner encounters during reintegration into a community. Preliminary evidence of the problem of individuals relapsing into criminal behavior and the level of community support derives from sources within the Southeast United States correctional facility regarding program implementations and incarceration rates. The number and outcomes of program support reflect only the inmates who choose to participate because states are autonomous in regards to laws and procedures for incarcerated individuals (Torres, 2019). In federal correctional facilities, education is mandatory, but it is not mandatory

in al state correctional centers (Siegel, 2016). Correctional institutions offer programs for inmates who choose to participate. Even though education could be mandatory, the requirement does not always produce successful outcomes. The problem of individuals relapsing into criminal behavior needs to be addressed due to the inconsistent data regarding the efficacy of programs in reducing recidivism. The inconsistencies were in the areas of GED testing and vocational training and how effective these programs are in reducing incarceration rates (Duke, 2018). Findings from the current study may be used to develop policies to ensure fairness and equality for inmates. The question of males and females relapsing into criminal behavior includes limitations in understanding the effects of correctional support services and inmates who are reentering society after incarceration. This quantitative study focused on the relationship between incarceration rates and correctional support programs provided by the prison institution.

Upon reentering society, more than 80% of ex-inmates re on community correction supervision such as probation (Christ et al., 2017). Solinas-Saunders and Stacer (2017) suggested that mental illness, addiction, court sentencing outcomes, lack of shelter, food, and employment are some reasons why there is a tendency to relapse into criminal behavior. In California, 45% of offenders return to prison after 1 year (Nyamathi et al., 2018). The current study addressed the gap in the literature regarding the relationship between incarceration rates and community support such as education and vocational training provided by a correctional institution in the Southeast United States.

#### **Purpose of the Study**

The purpose of this quantitative study was to evaluate the relationship between correctional department support programs such as GED and vocational training and incarceration

rates in a Southeast U.S. state. The incarceration rates were the dependent variable, and the correctional center programs were the independent variables. The study addressed different types of community support programs offered by correctional centers for incarcerated individuals in hopes of discovering their level of effectiveness. I examined the predictive relationship between educational programs and incarceration rates in a Southeast U.S correctional center. Researching correctional center programs and incarceration rates was warranted due to minimal studies addressing the relationship in the past 10 years.

#### **Research Questions**

RQ: Does completing vocational certificates and General Education Development programs in a Southeast correctional center predict its incarceration rates?

 $H_0$ : Based on data from a Southeast U.S. correctional center, there is no relationship between the predictors, vocational certificate and General Education Development programs, and incarceration rates.

 $H_1$ : Based on data from a Southeast U.S. correctional center, the more completed vocational certificate and General Education Development programs, the higher the incarceration rates.

*H*<sub>2</sub>: Based on data from a Southeast U.S. correctional center, the more completed vocational certificate and General Education Development programs, the lower the incarceration rates.

#### **Theoretical Framework**

This study was grounded on the theory of human motivation by Maslow (1954). The relevance of this theory to my study was the fact that relapsing into criminal behavior can be managed by reversing the individual's thought process. The goal of reducing incarceration rates

and criminal behavior may be reached by promoting self-motivation. Maslow's hierarchy of needs refers to the need to reach self-actualization, which is a deficiency of inmates in prison. Finally, it was essential to understand how motivating individuals using correctional community support programs may reduce their incarceration rates.

Maslow's hierarchy of needs was used to address why and how incarcerated individuals decide to participate in the program. How the inmates decide to participate in the program includes offering the educational and vocational programs in the correctional institutional setting. Offering the programs to the incarcerated individuals can be viewed as a choice related to Maslow's need for belonging. Some reasons why incarcerated individuals decide to participate in the programs may include missed opportunities or failures experienced during previous attempts.

Motivation among individuals who regretted failing or completing the programs during previous life experiences may give the prisoners a sense of belonging. Maslow's theory (as cited in Bassett, 2016) states that preventing prisoners from belonging will only make them want to belong more and that those prevented from belonging experience negative psychological outcomes. The U.S. Constitution's Fourth Amendment prohibits unreasonable searches, and the Eighth Amendment prohibits cruel and unusual punishment (Jolley & Donahue, 2016). Applying the Fourth and Eighth Amendments to Maslow's first two needs of food and security to prisoners is relevant. The third need for belonging is met through the provision of correctional programs to incarcerated individuals, leading to the last two needs of recognition and desire to become a better person.

Self-actualization, or having more profound knowledge of individual self-identity, includes the ability to evaluate and measure choices. With the objective to self-actualize,

children are taught be their parents or guardians to distinguish between right and wrong. According to Winston (2016), self-actualization is complex to reach due to the idea that persons are more paradoxical. Paradoxical (Winston, 2016), is a human trait that conflicts with each of the five needs. However, self-contradictory is a human attribute that can be an advantage to rational choices because it can be the basis of critically constructive thinking. If incarcerated individuals exhibit any self-contradictory thoughts, then Maslow's hierarchy of needs could be achieved at a faster pace in reaching the highest level and last level of human needs of self-satisfaction or self-actualization.

The idea of correctional support programs satisfying the five needs of the incarcerated individual was relevant to understanding what types of contents and methods are used in delivering services to the incarcerated individual. Exploring types of programs, methods, and content provided by correctional center programs to prisoners who are at high risk of recommitting a crime is a critical element in reducing incarceration rates and recidivism.

Furthermore, understanding whether there is an implementation using any of the five needs or all of the five needs is ideal because Maslow's hierarchy of needs is proven to be relevant to human behavior (Winston, 2016). The application of this theory was appropriate to the incarcerated inmate who might feel an enormous burden of rejection upon being in the classroom or reentering society.

#### **Nature of the Study**

The nature of this study was quantitative. The quantitative approach was selected to assess the strength of the relationship between incarceration rates and education programs such as GED and vocational certificates at a Southeast department of corrections. The variables were the correctional center programs and the incarceration rates of a jurisdictional prison population

in a Southeast U.S. state. The strength of the relationship was examined using one dependent variable with parametric testing. Multiple linear regression was used to examine the ability of two or more independent variables to predict the value of one dependent variable (see Frankfort-Nachimias & Leon-Guerro, 2018). The incarceration rate of individuals from the jurisdictional population was the dependent variable. Vocational certificate and the GED programs offered by the correctional institution were the two independent variables. A Southeast U.S. state was the settings from which the data were extracted for this quantitative study. Incarceration rates were taken from the monthly overall jurisdictional populations within the selected correctional facility.

#### **Definitions**

*Addiction:* A chronic brain disease identified by substance use disorder and expanded to include excessive, compulsive, or destructive habits (Tennison, 2019).

Community: A group of people living together with shared faiths and creeds (Qi-ping, 2020).

Faith-based organizations: A charitable organization affiliated with a religious group (Hagan, 2018).

General Education Development (GED): An alternative approach to earning a high school diploma (GED Testing Service, 2019).

Halfway House: A type of residential facility designed to provide for a staged reentry into the community (Hyatt & Han, 2018).

*Incarceration:* Limiting contact with the outside world in the form of monitoring, controlling, and by separating individuals from their families and communities (Folk, Stuewig, Mashek, Tangney, & Grossmann, 2019).

*Incarceration rate:* The number of prisoners held in custody in state prisons,

federal prisons or local jails (Bureau of Justice Statistics, 2019).

Recidivism: An individual relapsing into criminal behavior after the individual undertakes interventions for a prior crime and receives sanctions for that crime (Office of Justice Programs, 2019).

*Self-actualization:* A way of improving education and professional growth explained by motivation needs, social expectations, and requisites from education (Dmitrienko et al., 2017).

Vocational Certificate: An estimated one 1 year or less program geared to educate students in job skills (Comparative Indicators of Education in the United States and Other G-20 Countries: 2015, 2019).

#### **Assumptions**

I assumed the Southeast state would make the data available for research. I also assumed the program results would be valid. The study findings lacked generalizability because participants from only one prison facility were studied. Moreover, the programs and sample size served as a limitation. However, the current study was only concerned with the results of correctional programs for inmates. The study did not include minority risks and the statistical factors of incarceration.

In terms of the minority risk factors involved, though research demonstrated that there is a higher chance for a minority being incarcerated there was limited research comparing the minority rate of relapsing into criminal behavior in comparison to the overall incarceration rate. For instance, the selected Southeast correctional center consists of a small number of female Asians and Native Americans, and a high number of African American and White females. The population of Native Americans and Asians was too small for statistical analysis purposes.

Therefore, it was difficult to research the rates of Native Americans and Asians who relapse into criminal behavior within the selected Southeast correctional center.

#### **Scope and Delimitations**

This study excluded racial ethnicity and persons under 18 years of age. Another important delimitation was the exclusion of friends, family, and relatives who had experienced recidivism or a relapse into criminal behavior. Secondary data included individuals who had relapsed into criminal behavior, and were over the age of 18 and were members of a prison population in a Southeast U.S. state. Some literature indicated that recidivism and delinquency begin before 18 years of age (The Measures of Recidivism, 2019). Other literature suggested that the tendency to relapse into criminal behavior was a factor of higher incarceration rates among male and female populations (Collins, Lonczak, & Clifasefi, 2017).

#### Limitations

One limitation was a potential lack of data within the public documents that were analyzed. Though there were several types of correctional support programs for prisoners, complete and accurate listings or indicators in comparative correctional centers were lacking. Full listings on indicators regarding GED incarceration completion rates and vocation incarceration completion rates for males and females were also lacking. Researching different types of correctional center programs was challenging.

Biases that could have influenced the study included studies of the American and Canadian Native race. Because my ethnic roots are American and Canadian Native, they were separated from this study to ensure all prejudices were removed from this research. Aside from providing a brief history of American and Canadian Native courts, there was a separation of personal Native American and Canadian beliefs to avoid biases. Refraining from comparing

family, friends, and relatives was also essential to ensure the fairness and rationality of this study. Though it would have been convenient and easy to choose a population of readily available representatives, they would not have accurately represented the total population (see Babbie, 2017). By addressing the biases and prejudices that this study could encounter, and by ensuring the biases and prejudices were not applied, I ensured the study was robust.

Reasonable measures to address each of these limitations were taken to understand how biases can diminish the critical thinking process. Biases create barriers in addressing areas that are significant to the study. The significant areas of study were situated in the literature reviewed and the scientific tests implemented. For the critical thinking process to be successful, the research question must be addressed without distraction. Additional bias concepts within the subconscious mind that might be included in the research question would have only hindered the answer or the outcome. Thus, eradicating all bias conceptualizations that were irrelevant to the research question was foremost.

#### **Significance**

This study filled in the gap by providing knowledge of the relationship between different types of community support and incarceration rates. The support was offered by a correctional institution in the form of GED and vocational education programs. This study addressed the relationship between correctional center community support programs and incarceration rates of males and females who were reentering society. This study may provide a deeper understanding of recidivism and incarceration rates for professionals to inform policy development. Findings may lead to positive social change by reducing the rate of incarceration.

Understanding U.S. laws and the high incarceration rate was another contribution of the study. For instance, the Second Chance Act, which came into law on April 9, 2008, provides

support to persons reentering into society after incarceration (Office of Justice Programs, 2018). The significance of the Second Chance Act is promoting the issues of persons relapsing into criminal behavior and its effectiveness in reducing incarceration rates. Being able to interpret and critically evaluate laws and scholarly summaries of the statutes is paramount in the research.

Tracking the amount of money provided for states to ensure incarceration reduction was another contribution of this study. The budgets and policies for each of the states regarding incarceration rates may advance future policies regarding this issue. In May 2019, the House Appropriations Committee of United States passed a Commerce Justice bill for three programs to allocate funding for 2020: The Second Chance Act allocated \$106.5 million, The Justice Reinvestment Initiative awarded \$35 million, and the Mentally Ill Offender Treatment and Crime Reduction Act allocated \$35 million (Justice Center Council of State Governments, 2019). Understanding the U.S. Government and its procedures of prison reformation by allocating taxpayer dollars to correctional center programs with objectives to reduce the chance of individuals relapsing into criminal behavior may lead to positive social change.

The statistical examination of the relationship between incarceration rates and correctional programs may lead to positive social change by increasing awareness of how effective or ineffective the programs are for the incarcerated individuals. Currently, the prison rates of a Southeast state are at a sharp increase in the total population (Schartmueller, 2015). The findings in this study may provide a better understanding of why there is an increase in incarceration rates in a Southeast state. This study may provide lawmakers, educators, students, and families with improved knowledge of prison programs. Understanding the relationship between prison programs and incarceration rates may be used to decrease incarceration rates in the Southeast United States and may lead to positive social change.

Social change may occur in the lives of inmates returning to society. If the research on incarceration rates and programs offered in the correctional institution is provided to returning citizens, this knowledge may be used to improve their current situations. Making the research available to lawmakers, educators, and citizens throughout the world may reduce the offender's experiences of being ostracized. Greater awareness and attention to current social surroundings can lessen the chances in participating in ostracism (Jones, Wirth, Ramsey & Wynsma, 2019). Cultural change is based on existential security, population replacement, and how historical legacies influence culture shifts (Tatar, 2019). Technology has the potential to include and exclude making it important to decide on how to use it (Viswanathan & Sreekumar, 2019). With changing cultures and use of technology, this research may be used to improve the lives of citizens after incarceration.

#### **Summary**

Correctional community support and its influences on incarceration rates in the United States must be investigated. The types of correctional support programs provided by the State Department of Corrections and how the programs affect incarcerated individuals were necessary to explore. Researching the correctional support programs available for incarcerated individuals may reduce incarceration rates. Understanding how the correctional support initiatives proved their services to incarcerated individuals who are at high risk of relapsing into criminal behavior is equally noteworthy. More attention is needed to understand the relationship between the number of incarcerated inmates and the number of completed programs during incarceration.

Literature regarding correctional support programs is limited in the United States.

Further, literature in the methods or procedures used in providing aid to the incarcerated individual and to the high-risk individual who tends to relapse into criminal behavior within the

Southeast United States is minimal. Understanding what types of programs are used to aid the high-risk offender is pivotal in gaining knowledge of why individuals relapse into criminal behavior. In the next chapter, research on the variables (incarceration rates and corrections support programs) is reviewed to demonstrate the gap in the research on the relationship between correctional community support programs and incarceration rates in the study setting.

#### Chapter 2: Literature Review

The purpose of this study was to examine the relationship between the incarceration rates in a Southeast state and the correctional vocational certificate and GED programs offered to inmates. In the State of Colorado, the yearly rate of educational programs offered to inmates is \$150,000 (Duke, 2018). Though there is the question of whether it is fair to use taxpayer dollars to fund education programs, the idea of using education to reduce crime and rehabilitate caring relationships is considered to be a democratic form of fulfilling society needs (Harnish, 2019). According to Maslow's hierarchy of needs, confinement is unconstitutional because it prevents the prisoner from feeling the emotional concept of belonging (Bassett, 2016). From the policymaker's perspective in educating prisoners, the purpose of teaching is to reduce crime (key & May, 2019). In may review of the literature, it was clear that more studies are needed in the areas of incarceration rates, GED testing, and vocational certificate programs in the correctional institution. Applying Maslow's hierarchy of needs in the classroom in the correctional institution is an area of research that is lacking.

An abundance of literature exists on solutions to the problems of individuals relapsing into criminal behavior. However, there is limited literature on the relationship between vocational certificate and GED programs and incarceration rates in the correctional centers. Cultural and societal variances in the laws, including conviction approaches throughout the world, are sought and explored in aspiration of discovering techniques that would lower recidivism or offenders relapsing into criminal behavior. Modern and historical laws are briefly discussed in this chapter. A detailed description of incarceration rates, vocational certificate programs, and GED programs is provided in this chapter.

#### **Literature Search Strategy**

The literature search strategy for finding information on the problem of high incarceration rates and the correctional support programs included examination of peer-reviewed scholarly articles, government websites, academic books, and public documents including workbooks provided by the United States Bureau of Statistics. Online data from peer-reviewed journal articles were accessed from the Walden University library databases. Walden University dissertations were also explored using the Walden University library. Websites such as the National Institute of Justice, Bureau of Justice Statistics, National Institute on Drug Abuse, United States Census, and state correctional institutional websites were analyzed. Sources included Thoreau Multi-data base Search, Bureau of Justice Statistics, Google Scholar, Ulrich's: Verify Peer Review, ScholarWorks, Cirminal Justice Database, Research Library, ProQuest Central, SocINDEX with Full Text, International Security & Counter Terrorism Reference Center, Walden Library Books, and SAGE journals. Keywords and phrases used in the search terms included, incarceration rates, GED, Vocational Certificates, recidivism, community, support, correctional center programs, homelessness, relapse, female prisoners, male prisoners, quantitative dissertations, self-actualization, incarceration rates, Department of Corrections, and Abraham Maslow. In listings that were lacking regarding correctional support programs, notes were made to ensure follow-up procedures. The years 2014 to 2018 were acknowledged as the time frame used in this study because the study began in 2019. However, 2019 and 2020 peer-reviewed articles were also referenced because the study extended to 2020. Seminal literature included *The Holy Bible* and Maslow's (1954) *Motivation and Personality* (2<sup>nd</sup> ed.). In instances in which literature was unavailable, registration to databases was completed. Maslow's hierarchy of needs was referenced to ensure a balance between factual evidence and applied evidence.

#### **Theoretical Foundation**

#### Maslow's Hierarchy of Needs

The theory used for this study was Maslow's (1954) hierarchy of needs. The theory suggests there are five basic needs that lead to self-actualization: physiological, safety and security, love and belongingness, esteem, and self-actualization (Winston, 2016). The five basic needs are hierarchical in order and are theorized to be essential for human happiness. Physical needs relate to the physical necessities of the human body to survive, such as food, water, shelter, and air. Safety needs include how secure individuals feel in their environment. Safety is relevant to the type of neighborhood that a family dwells in or the amount of income a family receives. Love and belonging in the hierarchy of needs is the type of positive relationships or friendships developed by the individual and the extent to which the need of belonging is satisfied. Esteem, one of the top orders of Maslow's hierarchy of needs, includes feelings of accomplishment, such as awards earned at competitive events or educational achievement. The final order in the hierarchy is self-actualization which cannot be reached until all previous needs are met (Maslow, 1954). The purpose for using this theory in the correctional center setting is the idea that each of the needs can be relevant in prison. Physiological needs, safety, love, esteem, and self-actualization can be achieved in prison. The goal of incarceration is to create self-actualization for the inmate.

According to Maslow's (1954) theory, the indicators for the environment in which the human chooses to live define each need. For instance, obtaining the physical to esteem needs of an individual living in a rural area can differ significantly from the individual in the urban setting. In both the rural and urban settings, though the physical needs are food, water, sleep, and warmth, there are adjustments to delivering the requirements to the individuals in their

contextual environment. The evaluation goal for smart city physical and safety needs are met with income level, employment, and social security (Zhang et al., 2019). Zhang et al. (2019) also made reference to the love and belonging need as a social need or social demand. In the prison setting, delivering the physical needs of food water, sleep, and warmth to the inmates is adjusted according to the polices of each prison. As a result, how the five needs are satisfied in prison or how the indicators of each need are defined differ from individual outside the prison walls. The current study focused on the need for belonging, esteem, and self-actualization needs because the first two needs of physical and safety demand were met through recognition of the United States Constitution Fourth Amendment.

#### Hierarchy of Needs and the Inmates Classroom

In applying this theory to the high rate of incarceration and the inmates who complete the corrections support programs, a suggestion could evolve from what the individual or the community support program lacks. In lacking any of the five needs, there could be little prospect for the incarcerated individual to realize an essential requirement of self-actualization. If anyone of the four needs of physiological, safety, love, or esteem lacks in the inmate's classroom, then the last or final need for self-actualization cannot be met under any circumstances. The teacher must have each of Maslow's hierarchy of needs met so that students feel free from harm and judgement (Almeida, 2018). The teacher in the institutional correctional center must demonstrate exceptional skills in teaching styles, delivering classroom content, lesson plan creativeness, and classroom management. Effective and professional teaching begins with Maslow's hierarchy of needs (Liu, 2016). The teacher who does not have the empathy or understanding for the inmate who wants to succeed will not be successful in the classroom.

Using Maslow's hierarchy of needs can be used in the correctional center classroom setting. The hierarchy of needs delivered in the correctional classroom setting is unique due to the external environments affecting the classroom and the limited resources provided for the inmates. The correctional center class is not equivalent to the public or private classroom setting of the educational services offered at the local State level. Inmates in the correctional center classroom stem from a variety of backgrounds and histories that could be more disturbing than regular students from the local high school. The classroom is also in a prison setting, making the teaching environment more challenging. However, a teacher can use teaching styles in any situation to deliver instruction for student learning. Recommendations of classroom suggestions using Maslow's hierarchy of needs can be recommended to be used in Correctional Institutional classrooms. As shown in Table 1, below is an example of classroom suggestions by Liu (2016) using Maslow's hierarchy of needs in a classroom of adult learners.

Table 1

Adapting Liu's Model on Maslow's Hierarchy of Needs into the Classroom Setting

Type of Need	Classroom Suggestions
Love and Belonging	Being a member of the class.
	Getting along with the class.
	Receiving trust and care from class and teacher(s).
Esteem	Gaining the respect of class members and teacher(s).
	Gaining recognition for contribution to the class.
	Being competent for achieving tasks.
Self-actualization	Finishing projects on time.
	Sharing both positive or negative classroom experiences.
	Showing development of skills and abilities.

Directly connecting Maslow's hierarchy of needs to any correctional center's general education development or vocational programs could be a difficult and even impossible task. As stated in chapter one, since the United States provides shelter and safety in the prison setting, in recognition of the United States Constitution, the illustration can begin with the love and belonging need. In the illustration provided, love and belonging begin by being a member of the class and cooperating with other members. Esteem is gained by earning respect from teachers or other class members, and self-actualization is met through finishing projects, sharing, and showing skills and abilities. As a result, the idea of the incarcerated inmate participating in the GED or Vocational program is a process that can lead to self-actualization.

Concluding the hierarchy of needs is practiced, the correctional programs would only diminish the study and reduced its overall strength. Interviewing teachers who have taught or are presently teaching in the correctional center setting might also weaken the study due to the bias in self-criticism of teaching. The confirmation of the five sequential levels beginning with physical, safety, love, esteem, and self-actualization could be determined in the overall context of the classroom environment in which the correctional programs are situated by comparing the number of inmates who completed the vocational or GED program to the incarceration rate of that year. Each of the five sequential levels or orders relate to meanings relevant to their unique settings in which the human is positioned.

Obtaining all of the five needs is necessary for achieving universal human satisfaction during the process of existence. The type of classroom environment constructed by the correctional institutional teacher is ideal to attain Maslow's five necessary needs for the inmates. In response to the inmate's class, physiological needs relate to essentials such as hunger, restroom breaks, classroom temperature, food, drink, and classroom temperature. Ensuring emergency procedures are well planned and practiced is about safety. Post-conference meetings on classroom experiences provide love and belonging. Helping the inmate develop new skills can increase self-esteem. Earning the general education development diploma or vocational certificate is an upward step to freedom and self-actualization for the incarcerated individual.

The theoretical foundation of Maslow's hierarchy of needs can be linked to the inmate's classroom in this quantitative study. Maslow's hierarchy of needs applies to any environment. For students entering University, the self-actualization need is met by managing their calendar, sharing strengths and weaknesses (Kovach, 2018). As stated, comparing data of individuals who completed the incarceration programs could provide predictions in higher or lower

incarceration rates. In Abraham Maslow's (1954) *Motivation and Personality* those who have reached self-actualization have reached self-acceptance and self-appreciation which is a characteristic in which the healthy human has the conscience of feeling bad about discrepancies of current and future conditions, and that they can retain a constant sense of good fortune. Determining high incarceration rates can be lower due to the incarcerated individual's ability to be able to problem solve as described in Maslow's hierarchy of needs is a pedagogical inference or decision reached by reasoning.

In applying Maslow's hierarchy of needs to the research question in this project, the research question asks if there is a relationship between the incarceration rates and the programs provided by the Department of Corrections in an applicable State. The application of the physiological, safety, love, esteem, and self-actualization in connection to completing or not completing the correctional center programs is relevant. The purpose of adult education is to meet the needs of personal development and self-actualization (Terenko, 2019). There is a challenge in identifying the effectiveness of the various correctional support programs curriculums in the Southeast United States. There is also a challenge in identifying the types of methods used to deliver the programs offered to the incarcerated individuals in the correctional programs of the latter statement. If students do not experience a sense of belonging in the classroom, they will have a more difficult time in learning (Slaten, Elison, Deemer, Hughes & Shemwell, 2018). As a result, it can be inferred that students who do not complete the programs offered by the correctional institution lacked the experience of belonging and love in the classroom setting. Thus, Maslow's basic needs of love and belonging, esteem, and selfactualization can relate to the research question on the basis of the number of individuals who are completing the programs and their incarceration rate in comparison to other months.

Distinguishing and discerning the incarceration rates, the programs provided by the correctional center, the content, curriculum, and methods used is an allowance of more significant confrontation in attempts to answer the research questions. Maslow defines self-actualization as the desire to become more than the current state of being (Maslow, 1970). As a result, relating the research question of incarceration rates and completing programs in the prison is relevant since it measures the desire to become more than the current state of being. Additionally, more information is gained from the research question; the more knowledge is gained and permitted in studying the application of Maslow's hierarchy of needs in general education development and vocational certificate programs.

Though one might infer that love and belonging cannot be achieved during incarceration, providing programs to the incarcerated individual is a step towards opening positive emotions and necessities as described by Maslow. Attaining and completing a program during incarceration leads to security, order, limit, stability, predictability, and protection. Incarcerated individuals who earned their education in prison believed the experience was positive as the schedule and goal orientation allowed the structure to the days, which gave a sense of accomplishment resulting in optimistic behavior and changed thinking patterns (Baranger, Rousseau, Mastrorilli & Matesanz, 2018). Not only does Maslow believe education or program involvement be a tool in achieving love and belonging, esteem, and self-actualization needs, but parents use this tool as a means to ensure their children are secure in their formation years. Stable and safe environments are prerequisites for treatment (Pettus-Davis, Ren, & Lacasse, 2019). The correctional institution classroom setting can become a safe and stable environment necessary step needed towards love and belong for incarcerated individuals.

# Literature Review Related to Key Concepts and Variables

High incarceration rates in the United States is a problem that continues to prompt scholars, judicial employers, and educators into reforming prison policies. Understanding whether completing GED tests and vocational certificates predict incarceration rates is essential. Prison reform in the United States is an ongoing legislative prerogative that never ceases to be finalized. Community leaders, members, family, and extended family need to continue learning, applying, planning, and develop programs for inmates reentering into society. Correctional Center administrators and leaders need to prioritize and mandate prison programs for inmates.

Cultures throughout the globe have developed laws in addressing criminal behavior towards persons who have committed and have recommitted crimes. Different methods ranging from capital punishment, community service, and community involvement were used as forms of addressing the crime and penalizing the criminal. Learning different applicable laws regarding reincarceration and the types of various organizational support centers that exist to aid individuals challenges are just some relevant applications in this study. Jouet (2019) infers how the rehabilitative ideal is renounced or rejected in several court sentencing cases making justice practices unfair and even inhumane. Thus, in several States, rehabilitation is not a choice of means for accused individuals who are undergoing criminal court charges. Though courts throughout America do not provide rehabilitation as a choice of means to resort, Branden & Bonsu (2018) state that maintaining family bonds between incarcerated individuals and children, the social support is critical while incarcerated as it reduces recidivism following release. Family bonding, a characteristic of love, is a hierarchical component of Maslow's seminal literature, the basic foundation of this study. In contrast, barriers confronted by formerly incarcerated contribute to high rates of recidivism (Washington, 2018). Rationales or reasons for

high incarceration rates are vast, and providing rehabilitation programs during incarceration is just one strategy that can reduce high incarceration rates.

In understanding different types of organizational support center types in a Southeast State, an abundance of information can be discovered on the interconnection between formerly incarcerated individuals and the types of organizational support that can be available upon reentering into society. Faith-Based Centers, Addiction Centers, and Halfway Houses in the Southeast United States are at large; however, it is the number identified in each of the Counties that can account for how effective they are in relation to formerly incarcerated females. In the selected Southeast state, there are 67 registered Counties with the U.S. State. There are a variety of Faith-Based Organizations in the Southeast United States. Some Faith-Based Organizations from different denominations in the Southeast United States range from Southern Baptist, Presbyterian Greek Orthodox, Islam, and Roman Catholic. Non-denominational churches are also evident in the Southeast United States as sources in which incarcerated individuals who are reentering into society can attend in hopes of reducing their chances of recidivism.

The effectiveness of the wide range of services offered to persons who have been released from custody is minimal in research studies. The effectiveness of the alternative programs after being released from prison needs to be assessed and reviewed for future studies (Growns, Kinner, Conroy, Baldry & Larney, 2018). More studies need to be reviewed in researching the impact of post-release accommodations on ex-prisoners reentering into society. Although the objective of half-way houses throughout American society strive to aid the formerly incarcerated female in their transition back into society, there is little inconsistency in the effectiveness of the program (Growns, et. el., 2018). Examining the different types of profit and non-profit organizational support centers outside the walls of a Southeast State correctional

center, where the organizational support centers are situated within a given area and comparing it to the recidivism rate of that area can demonstrate the effectiveness of those centers.

Understanding correctional regulatory support programs and their relevancy or irrelevancy with incarcerated individuals is compelling as it proves whether the programs have a purpose in serving incarcerated individuals. Included in the literature review is the vitality in understanding correctional support programs as it is a deeply rooted step in attempting to comprehend how the General Education Development program (GED) and Vocational Certificates influence incarceration rates within a State jurisdictional population.

#### **American Incarceration Rates**

In the United States of America, the statistics of incarceration rates continue to be an issue within every jurisdictional area. Since the 1970's the incarceration rate in the United States has quadrupled due to lengthy sentences (Raphael, 2014, & Riley, Kang-Brown, Mulligan, Valsalam, Chakraborty, & Henrichson, 2018). America leads the world in prison population with over 25% of the prisons in the world being in the United States and with over 95% of the world population outside the United States (Sobol, 2016). The problem of mass incarceration needs to be addressed due to the financial costs, and the issues with policies governing criminal sentences. By understanding the costs of incarcerating an individual and developing more efficient financial correctional institutional budgets, the deficits in the United States will be reduced, making the economy more balanced. The policies regarding prison sentences are major stumbling blocks for the society and the inmates since they are geared to issuing harsh and longer prison sentences. Longer prison sentences recommended by sentencing guidelines of each State only result in correctional institutional overcrowding and increased problems within the Institution.

Prison sentence guidelines in the United States vary per the jurisdiction of the crime. In Louisiana, the first offense of marijuana is 5 to 30 years, and the second offense of marijuana is half to 2x longest possible (Miller & Khey, 2017). The first offense of 5 to 30 years could be a disturbingly overwhelming sentence for first-time offenders who have never committed a criminal crime. The effects of long-term sentences to first-time offenders could result in more harm to first-time offenders, especially if the individual were unaware of the seriousness of the crime committed. The severity of different types of crimes are debatable issues, and even more debatable in subjects such as marijuana. Marijuana is a subject of legal discussion as it is legal in some jurisdictions in the States and illegal in other the States.

The issue of legalizing marijuana in its illegal and legality form within the United States of America has become a topic of much conversational debate. It is related to this research since it is a problem of repeat incarceration in the Southeast United States. More repeat offenders who have not committed murder or violent crimes are serving life sentences (Schartmueller, 2015). One of the problems of repeat offenders is marijuana use. Currently, marijuana is legal for recreational use in ten States (Elliott, Kersting & Salyer, 2019). In neighboring countries such as Canada, the law is applied in every Province as ruled by the Cannabis Act on October 17, 2018, via Bill C-45 (Lam, 2019). In comparison to America, there is not one single national crime policy in America; however, there is one Federal Policy and 50 other policies uniquely developed to fit their State (Fabelo & Thomas, 2015). Therefore, to ensure judicial equality among all citizens, every State would need to mandate a priority in changing its laws to be consistent throughout all American States. The task of legalizing marijuana in every State to fit the needs of all citizens is unrealistic since the Constitution of America identifies each American State to be unique. The debatable interpretation in Article IV of the U.S. Constitution attempts

to define State Laws with respect to their citizens while limiting authority to Congress (Kincaid, 2015). In the States that legalize marijuana for recreational or medical use, there are already conflicting laws between the Federal and State Governments. The Internal Revenue Service (IRS) regards marijuana sales tax as illegal drug trafficking resulting in the ability of businesses to deduct expenses in accordance with the §280E of the IRS Code (Elliot et al., 2019). By attempting to make States consistent in statutes, one could ensure challenge and confrontation by American citizens as Article IV to determine States as anatomical and separate entities regarding their judicial laws and policies.

Comparing the Constitution to the current inmate's conditional form of confinement in Correctional Centers throughout America could also be argued as unconstitutional and inhuman. In Ruiz v. Johnson, recorded in *The Harvard Law Review* (2015), the federal courts in Texas ruled solitary confinement unconstitutional and violated the Eighth Amendment. The Eighth Amendment, which attempts to identify the meaning of cruel and unusual punishment, is also a clause of debate among scholars, judges, lawyers, professors, and the American public (Bessler, 2019). There are about 55,000 prisoners outside the supermax prisons that are in solitary confinement (The Psychology of Cruelty: Recognizing Grave Mental Harm in American Prisons, 2015). Bassett (2016) argues that prisoners would not suffer such extreme psychological deterioration if Maslow's theory on belonging were recognized and applied to the prison system. Solitary confinement is a debatable issue regarding the outcome of the prisoner's psychological aftermath and whether it produces more harm than virtue.

In prisons, solitary confinement is a form of punishment used on prisoners to ensure the rules, regulations, and policies that are set forth by the governmental sector are followed accordingly. Solitary confinement is an isolation technique used on prisoners that limits their

social interactions. On observing results of solitary confinement on prisoners, one could hear the banging of prisoner's bodies on the walls, shrieking, and blabbing (Harvard Law Review, 2015). In 1913, solitary confinement was banned in the City of Philadelphia's Eastern State Penitentiary. The solitary confinement creates more damage to the emotional being of an inmate during the restraint and after the control.

The operational capacity, operational designs, and custody population for the prisons in the United States vary from jurisdiction to jurisdiction. The functional capacity is the number of prisoners that can be accommodated for programs and services based on the availability of the facilities staff. Whereas, the capacity design is the architects' overall initial building plan intended for the number of prisoners in the building (Bronson & Carson, 2019). The lowest prison capacity design, according to the Bureau of Justice Statistics (BJS) of 2016 in America, is 1,353 with an overall prison custody population of 1,379 in the jurisdiction of North Dakota State (Key Statistics: Total Correctional Population, 2019). In North Dakota, the architects planned for the prison populations not to exceed 1,353. Currently, the prison custody population of 1,379, makes the custody population a problem for the State of North Dakota.

The most significant planned design made by architects is also one of the largest States in America. In 2016, the BJS reported the custody population in Texas to 137,584, and the architectural custody design to hold 159,696 (Bureau of Justice Statistics, 2019). Though the most extensive architectural design in America is made at a suitable capacity for its inmates, there continues to be a rise in the prison population or custody population. The BJS (2019) provided an additional report of the increased prison population in Texas to an additional 162,523. In North Dakota, the prison population also increased to 1,723, making the architectural designs for both prisons inadequate. Below is Table 2 that shows an indication of

how structural prison designed to hold 13,000 inmates and over throughout America are overpopulated, making the prison facilities insufficient and deficient in 2016.

Table 2

2016 Highest Prison Facility Capacities in United States (BJS, 2019)

Jurisdiction	Operational	Design	Custody Population
Alabama	25,784	13,318	23,397
Arizona	44,831	38,895	42,248
California	126,832	89,763	117,557
Florida	88,738	no data	85,834
Illinois	26,584	27,778	43,616
Louisiana	16,124	16,764	17,932
Michigan	42,441	no data	41,122
New Jersey	17,923	23,016	16,738
New York	51,473	50,762	50,611
North Carolina	37,587	no data	35,970
Oklahoma	20,299	17,902	19,218
Pennsylvania	47,624	47,624	48,287
South Carolina	22,380	no data	20,376
Texas	153,501	159,696	137,584
Virginia	27,537	no data	29,882
Washington	16,755	no data	17,228
Wisconsin	22,991	17,181	23,163

America continues to imprison more individuals than any other country in the world. Alabama, California, Illinois, and Wisconsin indicate extreme excess custody populations for which the architects initially designed. The jurisdictional custody population and the custody design is shown to equate differences of 27,794 in California, 15,838 in Illinois, 10,079 in Alabama, and 5,982 in Wisconsin. In analyzing the operational capacity of the Correctional Institutions, there appears to be a shortage of staff in the prisons excluding the States of South Carolina, Oklahoma, North Carolina, New York, New Jersey, Michigan, Florida, Arizona, California, and Alabama. It is even more impressive that there is available staff for inmates in extremely overpopulated prisons above 10,000 or more in the States of Alabama and California.

The average annual total correctional population of prisoners in the United States in recent years is fluctuating. In comparing correctional centers to other countries such as Canada, the ratio of the incarcerated individual to the overall prison population is much lower. The total correctional population for the Canadian 2016-2017 calendar year was 23, 045, with a global Canadian population of 36,708,083 (Corrections and Conditional Release Statistical Overview, 2019). The percentage rate of Canada's incarcerated individuals to the total population for the 2016-2017 year was .063%, according to the population statistics of the given year. In the United States correctional centers, the penitentiary population for the 2016 calendar year was 6,613,500 to an overall United States population of 323.4 million (Bureau of Justice Statistics, 2019 & United States Census Bureau, 2019). The total percentage rate for American prison's correctional population to the overall population in 2016 was 2%. Thus, the percentage rate for prisons in North America confirms 63/10000 or 6.3 inmates are incarcerated or under community supervision for every 100 persons in Canada, and 2/100 or 1 individual is incarcerated or under

judicial control for every 50 persons in the United States according to the 2016 statistics provided by each Country.

The total correctional population in the United States is consistent in maintaining its millions of inmates. A steady estimate of 6.5 million individuals, including community supervised offenders who are on probation or parole, continues to be the total correctional population in the U.S. (Bureau of Justice Statistics, 2019). In comparison, the actual incarcerated population of local jails, state prisons, and federal prisons, according to the BJS, is currently over 2.1 million (2019). With strained State budgets, the overcrowded prisons in which the inmate is forced to live has become a constant problem in most of the correctional locations throughout America (Pitts et al., 2014). The alarming statistics of incarcerated individuals lead researchers into questioning the overall policies and procedures used for prison detainment. As indicated in Table 3, below is a 5-year table referenced from the BJS (2019) on prison incarceration of the United States from 2006 to 2016.

Table 3

Total Correctional Population from 2012-2016

Year	2012	2013	2014	2015	2016
Total Corr.	6,949,800	6,899,700	6,856,900	6,740,300	6,613,500
Total Pr&P	4,790,700	4,749,800	4,713,200	4,650,900	4,537,100
Probation	3,944,900	3,912,900	3,868,400	3,789,800	3,673,100
Parole	858,400	849,500	857,700	870,500	874,800
Total Inc. P	2,231,300	2,222,500	2,225,100	2,172,800	2,162,400
Jail	744,500	731,200	744,600	727,400	740,700
State	1,570,400	1,577,000	1,562,300	1,526,600	1,505,400
Fed.	217,800	215,900	210,600	196,500	189,200
Male	1,461,625	1,465,592	1,449,291	1,415112	1,393,975
Female	108,772	111,358	113,028	111,491	111,422

In calculating the total population of the United States Correctional Centers, the entire probation, parole, jail inmates, state inmates, and Federal inmates are summed for the overall statistical measure. Often, the total incarcerated population is used for statistical informational purposes available for public analysis. For instance, the 2016 total incarcerated people would be 2,162,400 inmates rather than the total correctional population of 6,613,500. The total incarcerated population includes inmates in the local jails, state prisons, and federal prisons. The total incarcerated population does not include persons on probation or parole. As stated in Figure 2., there appears to be a decline in the total correctional population; however, there were only decreases in whole incarcerated people in the years 2013, 2015, and 2016. The detailed table suggests Federal inmates have the lowest statistical population and State Correctional

Centers to confine the most prisoners. The individuals on parole represent at least half of the total correctional population in the United States of America.

The jail, as one of the three types of Institutions, used to calculate the total incarcerated population, is a term used to contain local offenders. The BJS (2019) defines jails as short term facilities operated at the local level for offenders awaiting sentences or terms. The separation or quarantine of individuals from society is an obvious prescription of shame, guilt, humiliation, and loneliness for the human being. Nevertheless, the need for a local jail for offenders is ideal for short term offenders or inmates awaiting trial or sentences. The jail, temporary placement for accused male and female offenders, can be interpreted as an Institution where lawbreakers are taken prior to entering prison.

The difference in sex between the male and female prison populations differs significantly. In 2010, 29% of women were more likely to be in prison for property offense in comparison to 18% of male inmates (Solinas-Saunders & Stacer, 2017). Crimes committed by women and women do not differ; however, the number of crimes committed in relation to the type of offense is a distinct matter. In the table, the statistical figures regarding male and female correctional populations are only accounted for the jurisdiction of the State or Federal correctional authorities. Excluded from the male and female correctional community indicated in the table are the probation, parole, and local jail numbers.

There are different levels of prison confinements in the United States, ranging from minimum to supermax security prisons. The Census of State and Federal Adult Correctional Facilities, which is conducted every five to seven years, is available in the Bureau of Justice Statistics website (2019). The latest data available for the last census for adult correctional facilities are dated 2005 (BJS, 2019). According to the United States Department of Justice

(2020), the 2005 Census of State and Federal Correctional Facilities (CSFCF) is the seventh census with previous enumerations completed in the years 1974, 1979, 1984, 1990, 1995, and 2000. The following Table 4 provides information, as indicated by the U.S. Department of Justice (2020), in describing the total correctional institutional facilities in the United States from 2000 to 2005.

Table 4

Correctional Institutions from 2000 to 2005

Years	2000	2005	Difference
Public Confinement	1,107	1,185	+78
Public Community Based	297	221	-76
Private Confinement	101	107	+6
Private Community Based	163	308	+145
Jurisdiction State	1,584	1,719	+135
Jurisdiction Federal	84	102	+18
Security level Maximum	332	372	+40
Security level Medium	522	480	-42
Security level Minimum	814	969	+155

The changes in differences in Correctional Institutions indicate decreased and increased contrasts from the years 2000 to 2005. In Table 1, decreases of Correctional Institutions were applied in the public community-based Correctional Centers and the Medium level security Institutions. Additional construction was not defined as a source of change, indicating the source of variation could change within the internal infrastructures of the existing buildings. For instance, the free community-based Correctional Institution decreased by 76 facilities, and the

public confinement Institutions increased to 78 facilities indicating there might have been a change in facility name rather than the construction or ensemble of new facilities. With the noted decrease in public community-based facilities and medium security level facilities, all other Correctional Institutions increased within their security level, jurisdiction, private, or public confinement.

The maximum-security level of prisons is for inmates who have committed the most violent crimes, and they require closer attention by security. Though minimal literature is in the area of supermax prisons, Harvard Law Review (2015) confirmed there is at least one supermax prison in 40 States, and about 25,000 inmates are incarcerated in the supermax facilities (p. 1251). The maximum-security level population for inmates in the United States continues to be relatively high. One might consider the rising overall population of the United States to be a factor in the increased annual community; however, rising people in States should not be a liable cause of prison increase.

Predicting after statistical facts that at least 1 out of every 50 persons in the United States will be incarcerated is an alarming statistical outcome. In understanding and comprehending the figures and facts regarding incarceration rates in America, it is difficult not to compare the effects to future generations. The idea that one child out of every 50 persons will be incarcerated in the coming years is a disturbing notion for parents, teachers, and the American community. Given the current 2019 population at 329,483,090 (Unites States Census Bureau, 2019), legislation must take strategic action in planning how to reform prisons by improving policies. Statistical outcomes regarding total correctional populations is an important issue that needs public awareness. By creating public awareness for the American community, current correctional population figures can be reduced. The lawmakers, the legislators, and the

American public need to combine creative thinking strategies in forming solutions and enforcing action in decreasing the correctional institutional populations in the United States.

#### Recidivism

Recidivism, or returning to prison, is a phenomenon that is a constant issue in every society. Current and up to date statistics on recidivism are not immediately available for public research. As a result, recidivism rates provided are based on previous years to ensure the accuracy of the data recorded. Overall, statistical analysis of recidivism is continuously being prepared daily and is often a few years behind the current year. It only would not be feasible to provide U.S. prison recidivism for the years 2018 and even 2017 due to insufficient evidence of data and reporting from various States throughout America. Therefore, it is average for prison recidivism rates for 2018 to be based on a three-or four-year backdated data. For instance, the California Department of Corrections and Rehabilitation regulates offender recidivism reports for 2019 be based on the offenders released in the fiscal year 2014-2015 (Offender Recidivism, 2019). Prisons throughout America find their current annual recidivism years in previous years.

The definition of prison recidivism varies from prison Institution to prison Institution.

According to the Bureau of Justice Statistics (BJS), shared characteristics of defining prison recidivism begin with release from custody, program completion, and placement of probation (2019). The National Institute of Justice (2019) measures recidivism for three years following the release of an individual from a re-arrest, reconviction, and return to prison (The Measures of Recidivism). The last update on prison recidivism provided by the BJS was in 2018, and the study results were up to the year 2014. The complex issue of recurrence and its causes of repeated criminal behavior stems from a variety of roots.

The trend or tendency to relapse into criminal behavior is an occurrence of emotional dejection on the repeat offender. The aftereffects of why the tendency to relapse into criminal behavior is not only pondered by the repeat offender, but by all individuals that are affected by the troublesome act. The concept of prison recidivism is not an exciting subject due to its problematic outcomes and aptness toward inoculating emotional strain on innocent beings. However, for society to be able to reduce or decrease the rate of recidivism in America, the concept must be openly conversed and analyzed.

The outcomes of recidivism have an equal effect on all ethnicities; however, the tendency to relapse into behavior might be higher in ethnic minorities and group minorities. In comparing racial ethnicity and recidivism in America, the National estimates confirm ethnic minorities are more likely to recidivate and become offenders (Solinas-Saunders & Stacer, 2017). Understanding why racial minorities relapse into criminal behavior could derive from a series of psychological reasons. Individuals who are reported to have high levels of social and personal identities have higher self-esteem than those who have love levels of social and personal identity (Gonzales-Backen, Dumka, Millsap, Yoo, Schwartz, Zamboanga, Weisskirch, Rodriguez, Castillor, Kim, Brown, Whitbourne & Vazsonyi, 2015). Further, in response to minority groups, Meyer, Flores, Stemple, Romero, Wilson, and Herman (2017) found that in comparison to the United States population, there was an 8 to 10 times greater proportion of lesbian and bisexual women in the prisons and that the overall lesbian, and bisexual (LGB) incarceration rate is three higher than the general U.S incarceration rate. The incarceration rate and the risk factor involved in recidivism for ethnic minorities and group minorities are higher though recurrence affects all racial ethnicities. Below is a table is taken from the Bureau of Justice Statistics, Appendix Table 20 (Special Report Recidivism of Sex Offenders Released from State Prison: A 9-Year FollowUp, 2018) indicating the rate of recidivism among the most common racial ethnicities in America from 2006 to 2014. American recidivism ethnicity rates are shown in Table 5.

Table 5

American Recidivism Ethnicity Rate for Males Released After Serving Assault Sentence in 30

States from 2005 to 2014 Updated 2018

	Released	White	African American	Hispanic/Latino	Other		
	Males						
	35,771	12,884	13,270	8,278	1,215		
Total in							
9 years	83.8%	81.1%	87.6%	81.2%	86.1%		
Year 1	44.1%	39.5%	46.4%	46.5%	48.6%		
Year 2	38.7%	34.7%	42.5%	37.8%	45.6%		
Year 3	34.4%	32.9%	36.4%	33%	35.7%		
Year 4	32.8%	29.8%	36%	33.1%	29.7%		
Year 5	31.9%	81.5%	32%	32%	35.3%		
Year 6	29.7%	30.3%	31.1%	25.4%	33.9%		
Year 7	29.7%	27.9%	30.9%	29.5%	34.4%		
Year 8	29.0%	26.9%	29.6%	29.1%	39.4%		
Year 9	25.2%	23.3%	26.3%	25.9%	25%		

The table provided is based on the ethnicity diversity and recidivism rate of male inmates who have been released from a State prison after serving their sentences for assault. The most recent statistics available are between 2006 and 2014. Between 2006 and 2014, a total of 35,771

were released, and 83.8% of ex-prisoners recidivated regardless of their ethnicity. Following the indication of the overall ethnicity recidivism rate for assault, the table is broken down into categories of ethnicity, beginning with the American Caucasian ethnicity indicating the group to be the lowest recidivists at 81.%. The highest rate of recidivism in the overall 9-year study period is the African American ethnic group at 87.6% and the ethnic group "Other" at 86.1%. The difference in the percentage of recidivism between the highest ethnic group and the lowest ethnic group is 6.5%. All ethnic groups are at a recidivism rate of over 80% in the total 9-year study. By evaluating the table, it can be inferred that all ethnic groups, regardless of their identity, experience similar recidivism rates with the African American and the term "Other" ethnic group posing as high-risk recidivists.

Recidivism, in American society, is a dangerous infection that continues to spread throughout American people. The infectious concept of recurrence is not prone to any ethnic group or race. Regardless of race, if an individual possesses high levels of adaptive coping strategies, then they are less likely to exhibit histories of recidivism (Maschi, Morgen, Leibowitz, & Rees, 2019). American society attempts to offer and develop programs not necessarily for specific recidivists, but for all individuals in hopes of creating more peaceful societies, and to reduce incarceration rates that lead to recidivism. Even after traumatic experiences in prison, the various societal programs offered to inmates reentering into the community are not 100% effective as evidence reports continued recidivism in every American jurisdiction. Reviewing and understanding different coping strategies available for individuals who tend to relapse into criminal behavior is crucial.

## **Prevention Programs for Recidivism**

In some communities, programs have arguably been used as a tool for reducing recidivism. Some of these programs have been delivered in the form of drug and alcohol treatment, religious support, and even half-way houses. There is minimal literature in confirming the authenticity of the programs that aid in the reduction of recidivism. The available research on specific programs that aid to reduce recidivism might be readily accepted in one geographic location, but unreliable in another region of America. For instance, law enforcement agencies who are willing to help offenders in a given American State might not be as readily available for volunteer opportunity ventures in another regional setting.

Collins, Lonczak, and Clifasefi (2017) suggest that researches one geographic area and its participation in attempting to reduce recidivism by offering programs to inmates who were reentering into society. The research relates to recurrence and the different program effects in the city of Seattle. Interestingly, in the quantitative research article, the author used the city of Seattle with a sample of 318 male and female drug users, dealers, and prostitutes from downtown Seattle. The methods used included the 318 suspects allocated to Seattle's Law Enforcement Assisted Diversion, also referred to as LEAD. The participants were assigned case managers who recorded past and current history. Short term and long-term recidivism were recorded using the dichotomous 'yes/no' binary outcome with 203 belonging to LEAD and the remainder 115 used as a control group. The basis of the study was an attempt to understand how programs such as LEAD affect recidivism. The conclusion stated that there was a 60% lower chance of being arrested for participating in the LEAD program. It is crucial to address and include what types of help are offered to prisoners who are reentering into society and how these programs might be beneficial in reducing recidivism.

This study relates and pertains to the effects of programs and its relevancy to recidivism. It provides evidence for future researchers to recognize that recidivism can be reduced if addiction centers and programs are offered to convicted individuals during their experience of reentering into society. The method can also be applied in future research as it provides information on how addiction centers and the programs offered can help prevent individuals from relapsing into criminal behavior. However, even if the program study was applied in Seattle, it does not necessarily translate as a program that can work in every region in the United States. In a 2012 documentary called G-Dog, Father Greg Boy, founder of Homeboy Industries, would not expand internationally or to other States due to the idea that it might not necessarily work in different geographic locations. The successful not for profit organization found in the early 1970's focuses on aiding individuals from recommitting crimes, and preventing recidivism have achieved international attention (Mock, 2012). Creating an organization to fit the needs of its environment uniquely might not be successful in other societies.

Another program used to reduce recidivism is the availability of shelters or half-way houses for inmates reentering into society. Most incarcerated individuals who have no home to return after incarceration benefit from the half-way house as their shelter. Thus, the halfway house prevents the incarcerated individual from becoming homeless upon reentering into society. The need for halfway houses today is even stronger than ever. In a recent study involving narrative stories told by ten formerly incarcerated females, all the females had no home or place to go after serving their time in prison (Emerson, 2018). The idea of having no home to return after incarceration is discouraging aftermath, especially following prison experience. Inmates who have no home to recover after incarceration are at high risk of relapsing into criminal behavior, or recidivists.

Faith-Based Organizations (FBO's) also attempt to deliver spiritually based programs for individuals who are reentering into society. The religious organization's goal is to reduce recidivism or to provide the formerly incarcerated individual with a higher chance of success in refraining from reoffending. From the FBO's perspective, it is often merely believing and accepting that there is a higher power that enables the substance use disorder to overcome the addiction (Adedoyin, Beacham & Jackson, 2014). The belief that there is a higher power enables the victim to believe that being more significant is working to provide strength in denying whatever addiction is controlling the victim has a profound and positive outcome. Several scriptural verses are referred to empower and strengthen the individual mind resulting in selfdetermination and the ability to overcome challenges in life. For individuals to become confident and worthy, the powerful and inspiring verse states, "I praise you because I am fearfully and wonderfully made: your works are wonderful, I know full well" Psalms 139:14 (New International Version). And, for individual to overcome and challenge negative feelings of fear, discouragement, and rejection, another biblical verse gives the reminder, "You intended to harm me, but God intended it for good to accomplish what is now done, the saving of many lives" Genesis 50:20 (New International Version). The effects of applied biblical teachings in correspondence with positive life challenges is a debatable issue in regard to its effectiveness.

The effects of religion on persons reentering society in recent research using quantitative methods are proven to be strong on post-release and substance use, but the relationship between religious support and recidivism did not reach significance in the study conducted by Stansfield, Mowen, O'Connor & Borman (2017). In the study, regression analysis was performed to understand the impact of religion and prison recidivism. The methods included quantitative time-varying measures in both binary and continuous measures form. A sample size of 1,697 was

taken from the Serious and Violent Offender Registry Initiative (SVORI), with 1,032 used for regression models and T-tests. The researchers concluded religious support to be important in efforts to develop successful pathways to reentry.

On the contrary, faith-based organizations and their contribution towards aiding not just the formerly incarcerated individual, but the average citizen is not always favorable. In the Roman Catholic Church, Fromicola (2016) verified that under Pope Francis, there were about 8,000 pedophile priests. Before 2002, the canon law, also known as the ecclesiastical law, would be applied towards cases involving pedophile priests within the Roman Catholic Church. In using the canon law towards the accused clergy, the victim was provided money for therapy and suffering. At the same time, the priest was excused from duty for a short time (Formicola, 2016). Though victims have been compensated in countries such as Ireland, Canada, Germany, Australia, Denmark, and the United States, the settlements are made to avoid trials (Gallen, 2016). The psychological long-term adverse effects of children experiencing abuse range from not wanting to spend time with their children, fear of sexually abusing their children, emotional disconnection from their children, and fear of bathing or playing contact games with their children (Wark & Vis, 2018). Important to note is the high risk of individuals reoffending are often victims of abuse or addiction (Christy et al., 2017). Comprehending the length of the longterm adverse effects imposed on the abused victim and how it impacts future biological children is profound. The Faith-Based Program and its intentions on reducing recidivism have not always been truthful as history has drawn individual experiences, which caused increases in recidivism due to the physical and emotional abuses enforced by the faith-based programs.

By elaborating on some of the programs implemented and offered to reduce recidivism, there are specific types of programs in their unique settings that need to be analyzed. There is a

gap in the literature of understanding the effectiveness of programs delivered in the Correctional Institutional Centers throughout America. Since every Correctional Center is unique, and since the taxpayer's dollars offer most of its programs, it is essential to understand the outcomes of these programs. Similar programs offered in Institutional Correctional settings are the General Education Development, often referred to as GED, and the Vocational Certificate Program. In delivering the GED and Vocational Certificate, the inmate student confronts more challenges than the average public student. Traumatic experiences can be identified from the prison environment, and the traumatic experiences can predict recidivism history, according to research studies (Maschi et al., 2019). Understanding the completion rate and incompletion rate in comparison to the overall incarceration rate is significantly in demand for each State.

### **General Education Development**

The General Education Development program is an alternative approach to earning a high school diploma. The GED, often referred to as the Graduate Equivalency Degree or the General Education Diploma, is traditionally the General Education Development Test (GED Testing Service, 2019). From a historical perspective, on January 3-4, 1942, the American National University's leading Presidents and Educators gathered in Baltimore, the United States, to brainstorm ways on how to aid and support Word War II (Hutt, 2014). The meeting held in Baltimore was the birth of several discussions concerning how soldiers could be educated and how they could receive their grade 12 diploma without attending their local high school. According to Tyler, in 2005, the GED was created for veterans in 1942 for the soldiers to complete their high school requirements before entering WWII (Zajacova & Everett, 2014). Today, the GED is not just for soldiers or veterans that have served in the U.S. Military, but it is an option for individuals who have not completed a regular high school diploma.

The history of the development and emergence of the GED test can be understood as an ever-changing exam styled and changed to accommodate changing environments stemming from 1942. Before entering military service, there was an overwhelming 83 percent of black veterans and 59 percent white World War II veterans who did not graduate from high school; however, more than 92 percent of the Veterans reached the cut score between the years 1945 and 1947. Further, as stated by the 1946 Commission on Accreditation of Service Experiences, 80 percent of the Colleges that were surveyed in 44 of 48 states accepted the GED scores for their admission (Hutt & Stevens, 2017). In the United States, by 1947, New York was the first State to make the test available for its students, and in 1974 California was the last state to approve the test for general use (Kuehn, 2017). Today, The GED tests are accepted as an equal validation of a high school graduate in Higher Educational Institutions such as the United Arab Emirates, Nepal, Thailand, South Africa, and Bangladesh (American Council on Education 100 Years of Leadership in Advocacy, 2019). Since the formation of the GED test, the test has grown not only in America, but it is also being used in other countries to serve as a basis for completion of grade a twelve education.

### The Validity of the GED

With the GED test being offered as a basis for completion of grade 12, there has been a steady growth in grade 12 graduates through the GED testing program. In 2016, the American Council on Education reported an estimated over 20 million graduates of the GED tests since its formation in 1942 (American Council on Education Leadership Advocacy 2016 Annual Report, 2020). As a result, more adults have resorted to and passed the GED test as a means of obtaining their grade 12. In 2019, the GED Testing Service reported over an escalating 20 million graduates. The average age of the individual taking the GED test is 24, and the average age for

the person that passes the GED test is 26 (Score Scale and Content Descriptions for the GED Test, 2019). However, even with the ever-growing popularity of the exam, criteria within the content of the tests continues to be a debatable issue as to its equivalency with the regular high school grade 12 curriculum.

Certain entities suggest that the second-chance opportunity of adults obtaining their grade 12 through the GED tests is not at equal standards with the regular route of receiving a grade 12 diploma by process of private of public high school completion. One of the most theorized studies in 2015 regarding the test by Heckman, Humphries, and Kautz, believe the test to be lacking in measuring what students are taught to obtain their high school diploma (Brown, 2016). Heckman et al. in 2015 also claim the GED tests have no decisive role in the labor market, and the test does harm to the students by redirecting them to drop out of school and use the GED tests as an alternative (Kuehn, 2017). Perhaps, debatable issues regarding the GED tests and its authenticity to the equivalency of the high school grade 12 diploma will always exist regardless of how many improvements are made to the test.

The GED tests are an alternative route and second chance for individuals who have dropped out of high school in their teen years. Content, structure, and implement changes to the GED have created more discussions on its high school equivalency measures and instruction (Miller, Grover, Deggs, D'Amico Katsinas & Adair, 2016). Overall, earning the GED can be just as challenging as earning a high school diploma since the requirements needed for passing the GED tests can be just as difficult as the regular high school educational program. Further, the validation of the GED test should not be an issue of application due to the successful post-secondary rate of students who have earned a Bachelor, Masters, and even Ph. D by initially using their passing grades of the GED tests.

# **Core Subjects and Content of the GED**

To obtain a grade 12 high school diploma, students are required to pass the five core subject areas of Math, English, Science, and Social Studies in combination with other electives in which the public or private high school offers. The GED consists of five tests in the areas of science, reading, writing, social studies, and math skills credentials (Zajacova & Everett, 2014). By successfully passing each of the core subject areas of the GED tests, the returning adult student is granted the credentials equally given to students who have earned a high school diploma. Currently, there are 97% of colleges and employers who accept the GED credential and GED graduates earn an average of \$9000.00 or more (GED Testing Service, 2019). The GED program has proven to be a useful alternative for former high school dropout students who choose to pursue a second chance in acquiring their grade 12. Without the GED program, options for completing a high school diploma would be limited to fewer choices and options, making it even more difficult for the high school dropout to succeed in attempting to re-establish a grade 12 education.

## **Changes to the GED**

Since the inception of the GED in 1942, changes and adjustments to the composition of the test standards have evolved. The original version of the GED, which was developed more than 70 years ago by the American Council on Education (ACE), was formed to ensure that 80% of graduating high school students could pass the tests (Brinkley-Etzkorn and Skolits, 2014). In the second half of the twentieth century, the GED's growth was fueled by educational and government training programs such as the Pell Grants and the Adult Basic Education Act (Sampson, 2016). With the growth of the GED tests and information technology, more literature regarding the GED is critically reviewed and analyzed in the aspiration of improving the exams

for the benefit of the test taker. Also, important to note is the ever-improving information technology that makes statistical calculations more convenient and faster in summing test takers results from 1942 onward. More specifically, comparisons of achievements and scores from 1942 to today make improvements and challenges more natural to identify, interpret, and alter into the exam resulting in more efficient improvements.

Making improvements to the test by making certain subject areas less complicated or more rigorous not only allows test takers the opportunity to advance their intellectual thoughts, but it also develops the challenges towards using higher education skills. The advancement of the GED tests using modern information and technology provides more convenience for the test taker, and it gives an allowance for more high school dropouts to register for the trial online. Progression of the GED tests from its introduction in the early 1940s includes easier access due to the current availability of technology. For example, the software used in executing the test is made for faster delivery, and in terms of mobility, making the services more convenient and available for the adult who never earned the high school grade 12 diploma.

The first GED tests developed were paper-based standardized tests, and they were not as challenging. The paper-based test is no longer available for test takers due to its need for more human resources and its inconvenience in grading, mobility, and time consumption. In comparison to the paper-based test, the computer-based test is more accurate in calculating final scores, it is faster in grading the final scores, and it uses less workforce due to its technical advantages as a computer-based program. The computer-based test can also be considered less human bias due to its computerized functions in grading and calculating finalized scores. Easy instructions for the students on how to operate the computer are also available before the actual test, which makes the process less complicated and provides more independence for the test

taker. There are accessibility and accommodation features in the Nimble Tools that are in the computer-based test. Before the test, easy to understand computer skills are needed in areas such as understanding the toolbars, point and click, drag and drop, keyboarding, and minimal typing skills.

The transition of the 2002 version of the GED test to the 2014 computer-based fifth version is more challenging with more rigorous content to prepare the test taker for college and career readiness (Brinkley-Etzkorn & Ishitani, 2016). In reference to the GED Testing Service (2019) the first test series was from 1943 to 1977, the second test series was from 1978 to 1987, the third test series began in 1998 and ended 2001, the fourth test series launched in 2002 and ended in 2013 and the year 2014 was the start of the 5th version and the most up to date version of the GED test. Not only has each version incorporated changes to its content, but styles in scoring the test have also been mandated in updated versions of the test. The scoring of the GED tests has been raised since 1942 rather than lowered during the life cycles of each revision of the GED tests. The idea of raising the exam scores is an indication that society is expected to understand and have more knowledge within the subject areas of math, social studies, language arts, and science.

The first test series from 1943-1977 used a standard of scoring that was not as complex in comparison to today's standards of scoring the GED tests. The score scale ranged from 20 to 80 with several States requiring a 35 and above score on each test or an average combined rating of 45. Content description in the subject areas included general math, interpretation of reading, correctness, and effectiveness of expression in the natural sciences and social studies (GED Testing Service, 2019). Coinciding with the development of the GED in 1942 was the military's undertakings in the creation of the United States Armed Forces Institute (USAFI), which was

also mandated to develop high school and college-level correspondence courses for American military men and women (Hutt, 2014). The GED tests developed in this time frame were designed to ensure 80% of the high school seniors could pass the test (Brinkley-Etzkorn & Skolits, 2014). The generalization of the content description in each of the subject areas provided test takers with easier chances in passing the exams.

From 1977 to 1987 the standard score of the GED test remained with a 35 and the score for each test or an overall average score of 45, however, in 1981 the Commission on Educational Credit and Credentials raised the standard score to 40 for each test or an average of 45 for all tests. The content description was also changed by adding writing skills using sentence structure and essay format, and social studies, geography, life science, physics, literature, and math in the form of measurement, number relationships, geometry, and algebra were just some subjects added to the test (What is GED? 2019). Changing the content description and the scores in this decade appear to be relevant to its contextual environment in changes in the higher availability of telecommunications such as telephones, televisions, and the increase of transportation ranging from bus lines to airfare. With the advancement in telecommunications, the higher standard of living, and, most importantly, the four-decade gap since the development of the GED, the idea of increased test scores and content description changes in the GED tests was inevitable.

The third test series began in 1988 and ended in 2001. The third version of the GED tests commenced with no changes in the scoring; however, the content description became more structured. The GED tests were comprised of five different parts; 1) Writing skills using sentence structure and essay. 2) Social studies in the form of history economics, political science, and geography. 3) Science in a combination of biology, physics, and chemistry. 4) Literature and Arts with areas in popular literature, and classical literature. 5) Mathematics using

data analysis, number relationships, algebra, geometry, and other types of measurements. It was not until 1997 that the nationwide minimum score was raised to include a 40-standard score for each test combined with an average rating of all tests to be at 45 and above (GED Testing Service, 2019). In 2001, the No Child Left Behind Act (NCLB) was one of the indicators that the test needed to be changed due to the need to aid English language learners (ELLs) in academic measures (Anderson, 2015, p. 60). The accommodational requirements of the NCLB Act required states to change academic assessments in their tests.

The standard score range in the fourth test series was changed not only in points but also in structure. Rather than using a scale of 20 to 80 points, the new scores ranged from 200 to 800, with a passing score of 410 for each of the five tests combined with an average overall score of 450 and above from the years 2002-2013. To prosper in the 2000s, adults must not only understand the subject areas of math, English, science, and social studies, but they must also be able to critically think and analyze at a higher level (McLendon, 2017). Understandably, the higher level of thinking skills would ironically be needed with the massive changes in technology. The Language Arts subject also required more comprehension, analyzing, evaluating, and synthesizing. In math, number and operations applying to visual and texts from the workplace and academic environments was incorporated into the test. The science and social studies also added visual and written texts from environmental workplaces and academics (GED Testing Service, 2019). To meet the new criteria of the version four GED tests, if students started the exam before 2002, they had to start over (Jepsen, Mueser & Troske, 2017). In taking the GED tests, the subtests could be taken at different dates or compiled on one test date. Only the subtests that did not meet score requirements would have to be repeated later if necessary.

The content of the 5th GED version test is more complicated and challenging, resulting in higher expectations for the test taker. The test is designed to ensure the test taker is knowledgeable in current and up to date social studies, language arts reasoning skills, mathematical reasoning, and science curriculums that regular high school endures and are expected to complete. Reasoning through Language Arts focuses on the ability to read carefully and critically, the ability to muster evidence and analyze argument using clear and fluent writing, and the ability to apply basic grammar and determine a meaning to unfamiliar words.

Mathematical reasoning tests the recipient by focusing on executing and applying core computations, and by using quantitative and algebraic reasoning skills. The focus areas for science reasoning skills are in the areas of life science, physical science, earth science, and space science. Applying the socials studies reasoning skills are extracted from the domains of United States History, Geography, Economics, Civics, and Government using documents and illustrations that focus on the interpretation of data maps, graphs, and tables.

The passing score for the GED recipient is expected to be in the top 85% of the graduating high school senior class. Individuals can access practice tests from online sources or bookstores and are also available from various online websites. The new scoring method ranges from 100 to 200 for each subject test. Passing scores of 145 are needed for each test, scores between 165 and 174 indicate GED College Readiness, and scores between 175 and 200 show GED College Readiness and even qualifications of up to 10 college credits hours (GED Testing Service, 2019). The American Council on Education Leadership and Advocacy 2016 Annual Report (2020) stated that college enrollment had quadrupled over the past forty years. The Common Core State Standards (CCS), though making it more difficult for test-takers to achieve the passing grade in the GED tests, attempted to ensure the test would become more reliable.

#### **GED** in the Correctional Centers

Today, the General Education Development Tests (GED) are used in several Correctional Centers throughout America as a program to aid the incarcerated individual who did not complete a regular high school diploma. Around 1975, prisoners could earn their grade 12 through the GED tests (Sampson, 2016). Since the GED programs are implemented in several states throughout America, some judges mandate the offender to complete the GED program as part of their probation. In Arizona, a GED-attainment could be assigned by a Judge as a condition for persons serving probationary sentences (Torres, 2019). Though a Judge could appoint the GED-attainment in the State of Arizona, other States throughout America are antonymous in their laws and procedures for individuals on probation.

In the correctional institutional setting, the GED program is more challenging due to the problems encountered by inmates such as peer pressure, radical separation from the routine of prison confinement, dehumanizing environment, and the negative past experiences of the incarcerated individuals. Prison emergencies and lockdown drills, in combination with students being pulled out of class, are other contributing factors that make GED programs in the correctional center difficult to operate. A combination of the past experiences, peer pressure, and environmental conditions of the correctional institutional setting makes it more difficult for the inmate to succeed in completing the series of GED tests in the subject areas of math, social studies, science, reading, and writing. However, the GED Testing Services have implemented changes in their program to ensure their students have fair and equal opportunities in their attempts to complete the GED tests.

The GED Testing Services strives to continue refining and enhancing its program. In 2018, GED Testing Services implemented a professional development track for educators that

are administrating and teaching the GED testing in the Correctional Centers. Updates on corrections testing and national testing numbers in the form of newsletters are currently in the planning stages of the GED Testing services (2019). The professional development track implemented by the GED Testing services is proving to be a successful application as it serves to show accountability and transparency for not just the educator but the prison administration. In applying the professional development tract by the GED Testing Services, the teacher and the administrator can provide feedback on their experiences and challenges of teaching in the Correctional Institutional setting.

#### **Vocational Certificates**

In comparison to Earning a College Degree, obtaining a vocational certificate requires fewer hours to complete, and it is less expensive. The vocational certificate, which fits into the criteria of a sub-baccalaureate program, has increased in recent decades (Kim & Tamborini, 2019). To understand the definition of a vocational certificate, one must dissect the two concepts and then apply their meanings. Vocational refers to a skill or a type of expertise, and a certificate is a document showing evidence of ownership. The National Center for Education Statistics (NCES), identify common degrees sought after high school completion in the sequential order of certificate, diploma, associate degree, bachelor's degree, and doctorate (2019). The Certificates of higher education are often one year in length with vocational orientation, Diploma at two years in length, Bachelor's at three or four years, the Master's at one year and beyond, and the Doctorate at a minimum of three years in duration (Comparative Indicators of Education in the United States and Other G-20 Countries: 2015, 2019). As a result, one can conclude that the vocational certificate in the United States is an estimated one-year program in a specified area of occupation such as employment. The vocational certificate is often a chosen joint degree for

individuals who prefer an educational route that will provide them with a lower tuition cost, more specific employment opportunities, and less time to educationally complete.

Academic Institutional programs throughout the United States use different standards of credit hour requirements for their educational programs. Academic institutions offering vocational certifications are provided using a wide range of subjects in almost every career choice available in American society. For students who choose to obtain a Vocational Certificate, some types of programs for the student to choose range from plumbing, brick-layering, cosmetology, electrical, and welding programs. Obtaining a vocational certificate can require a minimum of two credit hours or up to 30 credit hours, depending on the subject area and chosen career. However, the average vocational certificate completion hours are between 18-20 credit hours (Reed, 2016). Some courses may even take just a few weeks to finish, while other classes may take up to 18 months. Vocational higher education programs are designed to aid students who are entering the labor market, and they provide a higher level of career and technical education (NCES, 2019). Though the vocational program is shorter than most educational programs, it gives the student with lifetime opportunities.

Public institutions or for-profit institutions offer vocational programs to registered individuals. Objectives and mandates of for-profit institutions are to generate and produce a profit for investors and proprietors (Davidson, 2016). The vocational programs offered by public or for-profit institutions can be critically analyzed in their effectiveness by analyzing specific statistical outcomes such as overall employment outcome and median annual earnings. In a recent study, Glastris (2018) estimated, that on average, certificate holders earn 20% more than those who have a high school degree. Glastris also confirms how welding certificate holders can

earn an estimated \$52,225 per year (2018). Earning a vocational certificate proves that it can be a profitable income.

There is limited information regarding vocational tuition fees across the United States of America. However, the 2017-2018 annual report by Ginder, Kelly-Reid, and Man (2018) for the National Center for Education Statistics (2019) indicated \$7,437 to be the estimated average cost for a less than two-year post-secondary offered by a public education program. The private nonprofit Academic Institution was much higher at \$14,639, and the Private for-profit Academic Institution offered an annual tuition rate at \$17,106. The tuition rates exclude books and supplies, room and board, and other expenses. In-state and out-of-state fees also specified differences in public tuition rates (Ginder et al., 2018).

In comparison to post-secondary programs that are over two years, the tuition fee of \$7,400 to \$17,000 might not be as high, making it less stressful for the student concerning long term debt. Academic performance for students with low student debt is also believed to contribute to higher academic achievement (Fricke, 2018). The length of time taken to pay the student's debt would depend on the salary earned after graduation from a vocational certificate program.

The salary mean of a vocational certificate graduate lacks statistical findings and records. It is easy to infer that the salary of persons who earned a vocational certificate could range from \$0 to millions of dollars on an annual basis due to the Capital system in the United States. In the United States, a hairdresser who earned a vocational certificate from a non-profit, for-profit, or public Academic Institution for Higher Education can achieve the status of receiving millions by being the proprietor of a chain of Hair Salons. In the United States, Americans even have the right to question their peers and the U.S. Government involving interventions with the market

(Olssen, 2018). With different and varying perceptions of the United States economics mixed emotions towards the concept of laissez-fair, the fact that a male or female can make a considerable profit by earning a vocational certificate is a fair and honest approach to American values. More importantly, the idea that an individual who can learn the skills from a one-year program vocational program, and who can earn millions of dollars due to the vocational program is appealing aftermath.

In the United States, the vocational certificate is an estimated one-year program with a focus on a career. After completion of the program, the student searches for employment in the specific career-focused while undergoing training for the vocational certificate. For instance, if the program chose was hairdressing, then the student will focus on companies that offer positions to hairdressers. Using this type of training has proven to be successful since there has been an increase in individuals choosing to pursue the path of obtaining a vocational certificate as a form of study after high school graduation. There are higher payoffs in construction, electronics and auto mechanics for earned vocational diplomas or certificates (Kim & Tamborini, 2019) Not only are vocational certification graduate financial earnings indicate to be a beneficial attribute of the program, but statistics prove the registration and graduate rate of the vocational certificate program to be on the rise.

In the past decade, students earning an education has increased in the vocational certificate sector. Between 2008 and 2016, NCES (2019) indicated a steady annual increase of students making their Certificates in the subject areas of science, technology, engineering, and math (STEM). The yearly increase in STEM includes some certificates conferred to U.S. citizens, permanent residents, and even non-resident aliens. The documents considered to be below the associates or diploma degrees continue to rise in terms of national distribution among

the male and female population of the United States, enabling the student to become more knowledgeable and career-oriented. Below is Table 6 which indicates the distribution of certificates from 2008 to 2017.

Table 6

Distribution of Certificates below the Associates degree level from 2008-2017 in USA

Year of	Total	Male	Female
Certificate			
2008-2009	472,262	329,244	143,018
2009-2010	500,783	352,115	148,668
2010-2011	531,018	370,922	160,096
2011-2012	556,696	387,705	168,991
2012-2013	574,000	397,223	176,777
2013-2014	604,167	417,547	186,620
2014-2015	635,800	436,775	199,025
2015-2016	668,091	455,559	212,532
2016-2017	704,580	478,601	225,979

In analyzing the statistical distribution of the certificates conferred from 2008 to 2017, the diversity of achievers is recorded following their gender, race, and classification as a U.S. citizen or Non-resident alien. It appears there is an annual increase of each accordance, except for the American Indian or Alaskan Native, who fluctuates in earning a vocational certificate indicated in the 2018 Tables and Figures of the Digest of Education Statistics. For instance, the highest total in which the American Indian or Alaskan Native Vocational Certificates was in 2009 at 3,763, and the lowest was in 2015 at 3,159 (NCES, 2019). Though age is not identified,

the accuracy of the achievers in the indicated tables appears to be accurate indicators representing the total population of the United States of America. Another accordance lacking in the tables is the recorded number or percentage distribution of incarcerated inmates who have achieved their vocational certificate during incarceration. Overall, the National Center of Education Statistics is an excellent source in understanding the total number of individuals who have guarantees conferred in the areas of science, technology, engineering, and math, also referred to as STEM.

By achieving the vocational certificate, the student becomes knowledgeable and can apply learned skills provided by the Academic Training Institution. Different types of teaching methods are used by Academic Organizations ranging from the more realistic work style of teaching methods to more theory-based teaching methods, which are often less favorable in some Academic Institutions. In a recent study in South Africa regarding the implementation of vocational certificates, there was a higher tendency to drop out of the program due to the curriculum content focusing on more theorized teaching methods (Van der Bijl & Lawrence, 2019). The application of using physical skills in training classes connects the student to the chosen career path making experiential training more useful in understanding what is to be expected in future work.

In training to understand what is expected in future employment, students earning a vocational certificate have the advantage of scenario training and live simulation. Scenario training or live simulation is commonly used for practice in vocational training with just a few students addressing the question of learning how to act before executing the role played (Sjoberg, Karp, & Rantatalo, 2019). Learning through performance has more extended and more lasting effects on student learning. The Experiential Learning Academy (ELA) launched in 2018

and funded by the Association of State Colleges, and Universities (AASCU) confirmed the implementation of experiential activities to have a higher impact of learning and accomplishment of goals (Weller & Sam, 2019). Learning through experience can easily be understood when applying its concept to certain environmental career contexts such as the cosmetology student applying facial products on to a volunteer, in comparison to the cosmetology student reading textual information on how to apply the facial products without a volunteer. As a result, the different teaching styles and learning styles used in the vocational certificate programs are unique and beneficial in their environmental settings.

Perhaps the unique environmental setting of the vocational certification program is within the walls of a Correctional Institutional Center. Though the initial objective for prison sentences is to execute punishment for prisoners, the idea of implementing vocational programs in the Correctional Setting can be ideal with an aim in reducing future recidivism for the inmates.

Offering vocational training while the inmate is incarcerated is an alternative in reducing American statistics on prison recidivism (Hill, Scaggs & Bales, 2017). By implementing a vocational certification program, the inmate will be able to discover the role of independence upon reentering into society after incarceration. Inmates in the Correctional Institutions must serve and complete the prison sentences that were authorized by verdict; however, it is equally important that the inmate and the Corrections Institution understand that prison is not the end.

Vocational certification in prisons has been scientifically proven to be effective in reducing prison recidivism. From 1997-2012, by applying for a Specter grant by the Federal Government into its programs, the Florida Department of Corrections proved recidivism could be reduced by providing the Specter vocational certificate to inmates who completed the training (Hill et al., 2017). By implementing education into criminal policies, the self-esteem of the

prisoner is built (Mertanen & Brunila, 2018). Self-confidence, a personality trait describing an individual's self-worth or morale, is a character trait in which all humans strive. Increased personal self-esteem lowers the chances of violent offending; however, heightened scores of prison self-esteem resulted in higher chances of violent behavior (Debowska, Boduszek & Sherretts, 2017). The descriptive characterization of self-esteem noticeably differentiates personal self-worth and prison self-esteem. In defining the two vivid characterizations, own self-esteem is relating to the self, and prison self-esteem is about the overall perspective of prison dwelling. Understanding the two concepts of self-esteem concerning the inmate is an essential reason for how self-esteem can be misinterpreted in connection to inmates serving prison sentences.

It is essential for inmates serving prison sentences to understand their criminal behavior and their thoughts towards their illegal actions. If the prisoner does not understand certain practices to be unacceptable by society and its laws, then the prison sentence is not justified. Creating programs that will enable the prisoner to understand unacceptable law-breaking behavior is a legitimate cause for reducing prison recidivism and increasing law-abiding formerly incarcerated individuals. For every dollar invested in creating Correctional Institution programs, there are four to five dollars saved on high costs of three-year re-incarceration rates in the United States of America (Nowotny, Masters & Boardman, 2016). Without the vocational certificate offered in any Correctional Institution, recidivism rates across the United States would be higher.

The vocational certificates offered in prisons throughout the United States are created constructively not only to increase social skills and future employment after incarceration but also to keep the inmate occupied with positive tasks. The barriers that served as risk factors

leading to imprisonment are encountered using vocational certificates in the Correctional Institution. Partnerships with organizations such as the U.S. Department of Labor, Universities, Community Colleges, Technical Schools, Labor Unions, and private industry partners are made by correctional industries such as the National Institute of Corrections to ensure the validity and authentications of the vocational certificates disbursed to inmates who complete the programs, (Correctional Industries a Guide to Reentry-Focused Performance Excellence, 2019). The National Institute of Corrections (NIC) is part of the United States Department of Justice, Federal Bureau of Prisons, that focuses on preparing inmates for success.

Preparing inmates for success is a difficult and challenging process that requires commitment and effort by the Correctional Institution and the inmate. Like other administered programs that receive funding from the American taxpayer, there is a debate on the effectiveness and the implementation of the vocational certificate programs in the Correctional Centers. In a literature review, Case (2018) elaborates on authors Dick, Rich and Waters work titled Prison Vocational Education and Policy in the United States, referring to the complexities of vocational education in the prison system including its conflicting purposes as an institution of punishment versus an institution of learning. By resorting to the consideration of confinement and discomfort to inmates as their form of punishment, the traditional method of punishment does not affect due to the negative after-effects or continuous cycle of crime. By lacking to address the inmate problem of corruption and disregarding treatment, the sequence of crime will only continue to increase. In providing treatment, whether it be in the form of vocational certification or another psychological aspect, there is a higher chance that the jurisdictional system will provide a safer environment for its citizens by equipping the inmate who is reentering into society with better social and decision-making skills.

Inmates who earn a vocational certificate from a Correctional Center are better equipped and prepared to re-enter society. However, due to the lack of methodological studies in the area of vocational certificates earned in correctional centers, many scholars believe the findings to be weak (Hill et al., 2017). As a result, further research needs to be conducted to understand the relationship between vocational certificates and correctional centers. There is a higher need for measuring outcomes regarding earned vocational certifications in the correctional institutional setting for current studies to be validated among scholars and practitioners. The ability to analyze using a critical and un-bias evaluation is an essential component in ensuring the strength of future studies within the subject areas of vocational certificates and correctional centers.

# **Summary and Conclusions**

The literature reviewed demonstrated both positive and negative outcomes using supportive approaches towards incarceration rates and correctional centers programs. The Law Enforcement Agency from Seattle called LEAD proved beneficial in lessening criminal behavior as it provided a supportive program to prisoners re-entering into society. Believing a Higher Power is supporting the offender resulted in reductions of relapsing into criminal behavior. However, in one of the studies, individuals in prison who were allowed to participate in a faith-based program proved to be ineffective. More research studies using different prisons would be practical in re-examining the effectiveness of the deliverance of religious programs in prisons.

The GED tests and the Vocational Certificates offered in the State Correctional

Institutions are not forced upon inmates. However, in some states such as Arizona, the GED

tests can be mandated to individuals on probation as a condition or requirement of probation

completion. The inconsistent State Laws throughout America cannot be infringed due to the

Constitution that recognizes States to be unique and autonomous. As a result, attempting to use

one study for the whole United States of America's correctional institutional programs and their deliverance to the inmates could be challenging. Therefore, researching correctional centers that deliver applications to inmates must be analyzed through a dissection process of analyzing one State at a time efficiency in data collection and validity of research outcome.

Suggesting the incorporation of Abraham Maslow's hierarchy of needs into correctional centers as a basis for program outcomes and their services for inmates could be beneficial.

Nevertheless, the process of self-actualization is favorable and instrumental in decreasing the risk of setting back into criminal behavior. A self-actualization is a form of improving personal and professional growth (Dmitrienko, Gorbina, Porozhnyak, Trusova, & Konovalenko, 2017).

Maslow's needs regarding education suggest that continuing leads to the highest level of Maslow's hierarchy, self-actualization (Shulte, 2018). Completing the general education development programs and the vocational certificate programs is utilizing the individual's talents and potentials.

The methods used in transcending prison incarceration are minimal, and the research of application approaches are slight. Literature in specifying or filling the gap or lack of information on the types of community support programs and the incarceration numbers in a State is pivotal. The process and discoveries are applying the applications, and approaches are also central. The next chapter will describe the research methods proposed for incarceration rates and the correctional institutional programs in a State setting.

### Chapter 3: Research Method

#### Introduction

The purpose of this quantitative study was to evaluate the relationship between correctional department programs such as GED and vocational training and incarceration rates in a Southeast state. In the research design, incarceration rates were the dependent variable, and the independent variables were the correctional support programs provided by a corrections department in a Southeast State. The targeted population was the inmates in a department of corrections. The correctional support programs evaluated in this study were, GED programs, and vocational programs. Threats to validity included accuracy in determining and measuring the effectiveness of the corrections community programs and their services to incarcerated individuals who are high-risk re-offenders. Ethical procedures included documentation and access to the population sample via approval from the Institutional Review Board of Walden University.

### **Research Design and Rationale**

The application of Maslow's hierarchy of needs was relevant in this quantitative study. Maslow's five human needs (physiological, safety, love and belonging, esteem, and self-actualization) may not have been met in individuals currently incarcerated in the given state. The federal government web sites, state corrections centers websites, and other types of directories were used to extract and reference information about program services provided by the department of corrections. The data were retrieved from a Southeast department of corrections website, and included the months ranging from 5 to 10 years. The time frame of 5 to 10 years beginning in 2019 was chosen to ensure the most recent and relevant data were

measured and researched. Charts, tables, and other forms of visual displays were developed to illustrate quantitative outcomes regarding the effectiveness of the correctional programs.

Because the study began in 2019, data obtained from 2014 onward were used. Mock (2012) described effective programs used for formerly incarcerated individuals re-entering into society. The biblical scriptures were interpreted from the New International Version, which is a translation of the authentic original historic Dead Sea Scrolls. This study could not have been performed without an important documentary, statistical data, and historical books. The articles and journals referenced were scholarly and based on factual evidence. All articles, journals, websites, statistical data, and the documentary were significant contributions to incarceration rates and correctional programs.

The incarceration rates from the selected Southeast state was the dependent variable. Incarceration included all crimes following the criminal code of the selected state. The GED and vocational programs provided to inmates by the correctional center were the independent variables. All variables ere included to predict the outcome of incarceration rates in the selected Southeast state. Researching how GED tests and vocational certificates were used to predict incarceration rates in a Southeast state may increase levels of positive social change in America. Variables and sources are shown in 7.

Table 7

Variables and Sources

Variable	Date	Source	
Incarceration rates	2012-2019	Selected state website	
GED tests programs	2012-2019	Selected state website	
Voc. cert. programs	2012-2019	Selected state website	

The two independent variables included how many incarcerated individuals completed a program in the correctional institution. Secondary data analysis was used to examine previously collected data changes in the general population of inmates who completed the identified programs offered by the correctional institution. The variable of incarceration rates reflected the time frame of the study. The number of individuals who completed the programs in the selected Southeast state was recorded in the IBM SPSS Statistics Version 25 instrument using the nominal type of measurement. The number of males and females who completed the offered correctional center programs was also recorded in the IBM SPSS Statistics Version 25 instrument using the nominal type of measurement. The incarceration rates of inmates were compared with individuals who had completed the programs provided by a department of corrections within the selected Southeast state.

My role in the research was planning the steps taken to ensure the data were correctly evaluated. Additionally, there was a responsibility to communicate all strategies used to appropriate individuals. There were no personal or professional relationships with any individuals referenced or used in this research. Research bias was minimized because secondary data sets were used for this study. Also, the data were evaluated using multiple regression analysis.

# Methodology

Distinguishing, choosing, and identifying different types of data to be used for research is a crucial step in determining effective outcomes. After choosing a quantitative approach, I used the secondary data analysis research design to conduct multiple linear regression (MLR). The unit of analysis was the numbers recorded monthly in the form of reports by a Southeast department of corrections. As a result, the unit of analysis was not defined as personal or

individual data; rather, it was cumulative data retrieved from a department of corrections website.

A Southeast department of corrections was chosen due to its exceeding and overflowing custody population of 23,397 to the capacity design of 13,318 (BJS, 2019). The website was also chosen due to its transparency in delivering treatment programs data and incarceration rates. The existing secondary data resulted in fewer risks or ethical concerns for the sensitive topic of incarceration rates and correctional center programs.

The quantitative research techniques were performed by downloading data from the government websites monthly statistical reports. The months ranged from 5 to 10 years of available data regarding incarceration rates, vocational certificates, and GED completion rates. As a result, the unit of analysis was approximately 60-120 months of continuous or interval variables for quantitative research. Categorical or qualitative variables are descriptions of groups, while continuous or quantitative variables are classified as numerical (Enders, Keller & Levy, 2018). The three interval variables were documented in SPSS as quantitative variables. The dependent variable was referred to as respondent, and the independent variables were numbered and documented in accordance with the number of incarcerated individuals during the month and the number of individuals who had completed each program. Incarceration rate, the respondent, was calculated using a Southeast department of corrections formula defining occupancy rate as the month-end population divided by the designed capacity (The Research and Planning Division, 2018).

After inserting the data into the SPSS, an association strength of the relationship was determined using linear regression. Multiple linear regression is a type of analysis used to measure the strength of interval and ratio variables (Wagner, 2017). Multiple linear regression

was used because it provides more information regarding the strength of the relationship between two or more variables. Multiple regression examines or predicts how several independent variables affect one independent variable (Frankfort-Nachmias & Leon-Guerrero, 2018). A significance level or alpha was set at 0.05. If the probability was less than the significance level of 0.05 then the null hypothesis was rejected. If the probability was greater than 0.05 then we would fail to reject the null hypothesis.

The Statistical Package for Social Scientists version 25, 2017, or IBM SPSS Statistics 2017 was used to measure the variables. The SPSS software program was reviewed, analyzed, and determined to be valid using the book titled *Using IBM SPSS Statistics for Research Methods and Social Science Statistics* by William E. Wagner (2017). Three persons developed the SPSS software package; Norman H. Nie, C. Hadlai (Tex) Hull, and Dale H. Bent (History of SPSS, 2019). Licensed Materials of the software package are the property of IBM Corp. IBM, which is an acronym for International Business Machines, is a reliable computer company with a history of accomplishment that dates to the early 1900s (Cortada, 2019). IBM SPSS software continues to be used by Walden University students frequently. Using a reliable instrument is a requisite in producing efficient calculations for this quantitative study.

# Threats to Validity

Threats to validity is a concept that was used to measure the reliability of the given study. Validity is the extremity of accuracy based on test scores or other types of measurements on research (Plano Clark & Ivankova, 2016). In understanding the definition of validity, the application of its approaches in terms of external validity and internal validity was analyzed. According to O'Sullivan, Rassel, Berner, and Taliaferro (2017) threats to external validity are different factors that limit the ability or application to the findings of a study for cases not

involved in the study, and threats to internal validity are factors that could be the cause of a change in a dependent variable and represent alternatives to the tested independent variable. By analyzing the threats to external validity and the threats to internal validity, each of the concepts could be applied to research.

Threats to external validity were relevant to quantitative testing. An example of threats to external validity is the omission of relevant statistical data for testing the effects of experimental variables. For instance, if there is one number not available in statistical information, then there will be a threat to external validity. External validity is the transferability of the research. Transferability relates to variation in participation selection. In ensuring the threats to external validity are met, this study regarding correctional program support systems and its effects on incarcerated individuals who relapse into criminal behavior, the variables will need to be carefully analyzed and reported to their most specified details. Threats to external validity were addressed by stating and recording the acute effects and results of the experimental variables.

The statistical variables of the study were the incarceration rates, the general education development, and vocational certificates program completion and incompletion rates. Accurate numbers from the studied correctional Institution needed to be displayed and used for measuring outcomes. The data on the variables of incarceration rates and correctional center programs derived directly from the chosen correctional center, and it was recorded accurately.

In contrast, examples of threats to internal validity include history, types of instrumentation, and statistical regression (Walden University Center for Research Quality, n. d). As a result, internal validity in the study included the effects of the experiment using statistical regression (SPSS Statistics), which were calculated to understand how correctional support affects incarcerated individuals and prison recidivism. Another form of internal validity that was

included was a history of how the data is retrieved and how it was included in the study.

Sufficiency in answering the research question was crucial; if the procedures in using the SPSS statics software were not carefully followed, then this will be a threat to internal validity. Years, time, the date were accurate to ensure the standard error of an outcome is valid.

If the literature reviewed was inaccurate, this would have been a threat to internal validity. Internal validity is the credibility of the research. Credibility is referred to as elements containing saturation, reflexivity, and peer review. Validity in using the quantitative approach is a crucial area or component that is necessary for the study to be stronger and valid. Ensuring the articles and journals that were referenced for historical informational purposes decreased the threats to internal validity. High threats to internal validity were unrecognized and unreliable websites such as Wikipedia. The Wikipedia website is an informational site that allows public access with an editing tool for readers (Pratesi, Miller & Sutton, 2019). Using a website that is open to public access for changing historical information is not reliable for authentic and accurate research. For this reason, several of the journals and articles reviewed will be extracted from Walden University and its recommended databases.

#### **Ethical Procedures**

Before research and during a research project, the social scientist must be careful with the volunteer subjects or participants of the study. If the volunteer participants are harmed in any way, the research will be less credible and even be null and void. In ensuring the human subjects have properly cared, there are rules and regulations set forth by organizations. "Many national and international professional organizations have codes of research ethics that, in addition to general principles of research ethics, address ethical standards of conducting research specifically for each field" (Plano Clark et al., 2016). Examples of an organization that enforces

clear guidelines for human participation are The American Psychological Association (APA) and The National Institute of Health (Rudestam & Newton, 2015). By understanding the rules and regulations of the organization, the social scientists can have a better understanding of how the human subjects used must be treated with care due to the fragility and nature of their input towards any given study. In this quantitative study, no human subjects will be verbally confronted to extract any information. All information derived from this study was in the form of aggregated data available for public use.

About this quantitative study, the checklist provided by Walden University was thoroughly followed and compiled. The ethical procedures outlined in the Walden University checklist which include agreements, description of how the human participants will be treated if used, institutional review board (IRB) approval from Walden University, ethical concerns related to recruitment if used, ethical concerns related to collecting data, description of data regarding anonymity or confidentiality, protection procedures, storage of data procedure, and even who will have access to the data (Walden University Center for Research Quality, n. d) was addressed in accordance. In avoiding ethical challenges and privacy concerns, secondary data was used in this quantitative study. Human subjects were not interviewed or approached for obtaining information in this research. As a result, consent forms regarding extracting information from human subjects was not necessary.

# **Summary**

The research methods used in this research were designed to be clear, enriching, organized, and extremely informational. Though each of the variables appeared complex in their forms using Maslow's five basic human needs, the outcome of the calculations was used to simply prove and measure the effectiveness of the number of community support centers that

provide treatment programs for formerly incarcerated who are high-risk re-offenders. Retrieving this information through careful analysis and exploration will promote positive social change in any given community center.

Maslow's hierarchy of needs serves as a theoretical foundation for reasoning the number of incarceration rates and the individual who completed the correctional programs in the various prison facilities. The positive and negative results using the reliable software SPSS instrument proved as evidence in concluding the relationship between the incarceration rates and the correctional programs offered. Envisioning the results of this study and its outcomes was robust and informational for positive social change. Serving society in the form of delivering efficient resources in the area of incarceration rates and the programs offered by correctional centers is pivotal as it serves as a critical resource in understanding the infinite dilemma. The results of the proposed study is detailed in chapter four, describing how the data was collected and the results of the investigation.

### Chapter 4

#### Introduction

The purpose of this quantitative study was to evaluate the relationship between correctional department support programs such as GED and vocational training and incarceration rates in a Southeast state. To understand the relationship between incarceration rates and program support types, multilinear regression (MLR) was conducted using the most recent IBM SPSS Statistics 2017, Version 25. By using the measuring instrument, the research question and its hypothesis could be addressed. The research question and hypotheses were based on the completion of programs offered within a correctional institutional setting using secondary data. Two programs offered in the correctional institution are vocational certificates and GED. The following research questions and their hypothesis statements are indicated as follows:

 $H_0$ : Null Hypothesis: Based on data from a Southeast U.S. correctional center, there is no relationship between the predictors, vocational certificate and General Education Development programs, and incarceration rates.

 $H_1$ : Based on data from a Southeast U.S. correctional center, the more completed vocational certificate and General Education Development programs, the higher the incarceration rates.

*H*<sub>2</sub>: Based on data from a Southeast U.S. correctional center, the more completed vocational certificate and General Education Development programs, the lower the incarceration rates.

The organization of this chapter is based on providing information on data collection, and the results of the study. The data collection section includes the time frame used for collecting the data, the discrepancies in data collection, and the population of interest in comparison to the

larger population. Descriptive statistics, statistical assumptions, and statistical analyses are used to present the results. The chapter concludes with a summary.

## **Data Processing**

# **Time Frame for Data Processing**

In collecting the secondary data, I used monthly reports from a Southeast department of corrections. The Southeast department of corrections website was used because it showed considerable transparency in providing statistical information in regard to completion rates of programs offered to inmates. Though finding the data took several month, inserting the data in the measuring instrument took only a few hours. After I inserted the data into the IBM SPSS measuring instrument, it took seconds for the outcome to be calculated.

## **Discrepancies in Data Processing**

There were minimal discrepancies in the data collection process. In one instance during data collection, the incarceration rate needed to be calculated in accordance with the formula provided by a Southeast department of corrections. The calculation of the incarceration rate was the capacity rate of the correctional institution. A formula including the month-end population divided by the capacity rate was used to determine the capacity rate for the contracting facility. The selected correctional institution refers to the incarceration rate as the capacity rate in their monthly reports. Calculating the incarceration rate was essential because it was needed to answer the research question. A second calculation of the incarceration rate was also performed to ensure its accuracy.

#### **Characteristics of Individuals**

The characteristics of the incarcerated individuals who participated in the correctional institutional programs were unknown. The secondary data did not include demographic

information for each of the survey participants. However, the data showed that all participants were over 18 years of age and were housed in an adult correctional facility. Also, the correctional facility monthly reports did not present completion rates for the vocational certificate programs and GED.

The proportional population of interest in comparison to the broader population, a therapeutic education facility, was the basis of the study because it represented the Southeast department of corrections as its primary treatment facility in delivering programs for incarcerated individuals. As stated in the literature review, the department of corrections is made up of a custody population of 23, 397 with a capacity design of only 13,318 (BJS, 2019). In 2017, there were 25,135 males and 2,473 females in the Southeast department of corrections (Bronson & Carson, 2019). Using these data was relevant because they were readily available for public access. Furthermore, the data provided relevant statistical information that could be used to generalize findings to other correctional facilities. More specifically, the data set included information on the number of individuals who completed programs offered and incarceration rates according to the monthly reports from years 2010 to 2019.

#### How the Data was Recorded

The data were inserted line by line into the IBM SPSS software. In the IBM SPSS software, the tab titled variable view was the first record to be used for data insertion. The name, variable type, width, number of decimal places, label of the variable, number of data missing, columns, alignment, type of measurement, and role were the items that needed to be filled for the measuring instrument to be effective in its calculation. Four names in the data view ere used: dates, incarceration, GED, and vocational. Dates ranged from December 2010 to December 2019. The incarceration rate was calculated using percent. GED and vocational certificates ere

appropriated to the number of individuals who completed each program. In total, the data set included 120 entries for each of the four names in the SPSS software system.

The types of measurements were determined to be scale becaseu the variables were all interval except for dates, which was labeled nominal due to its nature in differences of months and years. Decimals were placed at zero because no decimals were used in the number allotted for each variable, and in the tab titled label, more specific detailed information of each variable was provided. In the tab titled missing, the word "none" was inserted becaseu there were no missing variables in the data collected. All other titled tabs did not need to be labeled because they were automoatically marked. Table 8 presents how each variable was inserted into the SPSS software.

Table 8

SPSS Input: Variable View

Name	Type W	idth Dec	. Label	Values	Miss.	Col.	Align	Measure	Role
Date	String 8	3 0	Mo/Yrs	{1, 2019}	None	8	Left	Nom.	Input
Inc.	Num. 8	8 0	Inc. Rates	None	None	8	Right	Scale	Input
GED	Num. 8	3 0	Comp. GED	None	None	8	Right	Scale	Input
Voc.	Num. 8	3 0	Comp. Voc.	None	None	8	Right	Scale	Input

After the variable view software page was completed, the data view page needed to be filled in accordance with the names provided in the variable view page. The four names were manually inserted into the four different variable tabs. A total of 120 entries were used for each of the four names; Dates, incarceration, GED, and Vocational. The three variables that included incarceration, GED, and Vocational were carefully labeled consistently with their Date. A second line by line check was performed to ensure accuracy for the date and its variable. Below

is Table 9, indicating how each variable was plugged into the SPSS software measuring instrument. Since this is just a sample table that indicates some of the actual SPSS output data view, only the year 2019 is used to demonstrate how the output was provided in Table 9.

Table 9

SPSS Output: Data View

Dates	Incarceration	GED	Vocational	
jan2019	47	0	137	
feb2019	52	6	86	
mar2019	51	0	140	
apr2019	47	5	147	
may2019	48	0	124	
jun2019	48	3	96	
jul2019	43	5	55	
aug2019	43	3	103	
sept2019	38	3	26	
oct2019	31	2	53	
nov2019	26	6	97	
dec2019	17	0	95	

### **Results**

Multivariate Linear Regression (MLR) was used to determine if a relationship exists between the predictors Vocational Certificate, General Education Development programs, and the respondent incarceration rates. The statistical tests of prediction using MLR determine the linear relationship by using two independent variables and one dependent variable. In using the

measuring instrument, some descriptive statistics were also readily available in determining the mean, mode, and range of each variable. The table below shows the central tendency or the mean, and range of each variable. The measures of variability also referred to as the standard deviation of the incarceration rates, completed vocational certificates, and completed GED tests are also provided.

# **Descriptive Statistics**

As indicated in Table 8, the number of months used was one hundred and twenty (N=120), or ten years to be more exact. The mean, which is the average of each variable varied from a 48.10% incarceration rate, 3.38 persons per month completed GED tests, and 120 persons per month completed Vocational Certificates. For each variable, the standard deviation, or the square of the variance, is 7.672 for incarceration rate, 3.775 for completed GED, and 36.561 for completed Vocational Certificates. The descriptive statistics is shown in Table 10.

Table 10

Descriptive Statistics

	N	Mean	Std. Deviation	
Inc. Rate	120	48.10%	7.672	
Comp. GED	120	3.38	3.775	
Comp. V.C	120	66.60	36.561	

# **Model Summary**

The main purpose of the model summary is to provide the proportion of variance in the dependent variable to the independent variable. In other words, it is an overall explanation of the dependent variables and a description of the R, R Square, and Standard Error of the Estimate. In Table 9, the primary focus of the table is the R Square. The R Square of .098 means that 9.8% of

the variation in incarceration rates is explained by the variation in the independent variables, vocational certificates, and GED Tests. Table 11 shows the Model Summary of the variables.

Table 11

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of
				the Estimate
1	.313a	.098	.082	7.350

a. Predictors: (Constant), Completed vocational, Completed GED

b. Dependent Variable: Incarceration Rates

#### Anova

The output of regression using IBM SPSS 2017 version 25 also provided a table titled Anova. Anova or analysis of variance is an inferential statistics technique that tests for a relationship between two variables in two or more samples (Frankfort-Nachmias & Leon-Guerrero, 2018). In understanding the Anova output for MLR, a sum of squares and the mean of squares is provided. Also provided is the F statistic and its p value, also referenced as whether or not it is statistically significant. In this study  $p \le .05$  is used to reject the null hypothesis. The alpha ( $\alpha$ ) set .05 is the level of probability for the null hypothesis to be rejected, and it is customary to set it at this level, according to Franfort-Nachmias and Leon-Guerrero, 2018. Therefore, there is a 5% risk of rejecting the null hypothesis. The F is calculated at 6.338, with 2 degrees of freedom. The value is statistically significant at =.002, allowing this research to reject the null hypothesis. Indicated in Table 12 is the Anova for incarceration rate, and completed vocational and GED programs.

Table 12

Anova<sup>a</sup>

	ANOVA							
Model		Sum of Squares	df	Mean Squa	re F	Sig		
1	Regression	684.683	2	342.342	6.338	.002 <sup>b</sup>		
	Residual	6319.852	117	54.016				
	Total	7004.535	119					

- a. Dependent Variable: Incarceration rate
- b. Predictors: (Constant), Completed vocational, Completed GED

### Coefficients

The coefficients can be identified in an equation such as:  $\hat{Y}=bX_1+bX_x+a \rightarrow \hat{Y}=.340_1*+.052_2*-50.398$  and it is statistically significant at the  $p \le .05$  level. The  $X_1$  is the completed GED, and the  $X_2$  is the completed Vocational Certificates. Therefore, each additional year of completed GED tests provides an increase of .340 incarceration rates, and each additional year of completed Vocational Certificates provides a decrease of -.052 incarceration rates. The independent variable, GED tests are not statistically significant at p=.061, and the independent variable, Vocational Certificate, is statistically significant at p=.066. The coefficients are identified in Table 13.

Table 13

Coefficients<sup>a</sup>

Coefficients <sup>a</sup>						
Unst	tandardized Coefficients		Standardized Coefficients			
Model	В	Std. Error	Beta	t Sig.		
1 (Constant)	50.398	1.582		31.855 .000		
Completed GED	.340 .	180	.167	1.893 .061		
Completed Vocational	052	.019	-2.47	-2.793 .006		

a. Dependent Variable: Incarceration rate

### **Histogram 1: The Dependent Variable Incarceration Rate**

The following histogram illustrates the differences in frequencies of the ratio scale variable, incarceration rate. The width of the bars is the interval widths, and the height of the bars is the frequency of each interval (Wagner, 2017). Each of the histograms in this study is about cumulative data rather than individual data. Understanding the highest and lowest peak of the frequencies of each variable is the primary focal point of the outcomes in each of the histograms.

The shape of the distribution is symmetrical, indicating the mean, mode, and mode are similar in number. In Figure 1, the segments of 10 on the horizontal axis consist of 3 bar intervals. Since the peak is to the right of the graph, then the data is skewed to the left. This type of symmetry means that there was a sudden change before the peak of incarceration rates. The bars or data is given in intervals, and the shape and the spread of the data indicate that a frequency of 38% of the selected Southeast correctional center was the highest peak of incarceration rates.

More specifically, the classes or bins of the histogram in figure 1 identifying the variable are separated to show the highest point of incarceration rate in the selected Southeast correctional center. The incarceration rate, also referred to as the capacity rate by the selected Southeast correctional center as calculated by a formula using the month-end population divided by capacity rate, shows an outcome in percent. The highest percent of incarceration rate of the month-end population divided by the capacity rate is 38% according to the histogram.

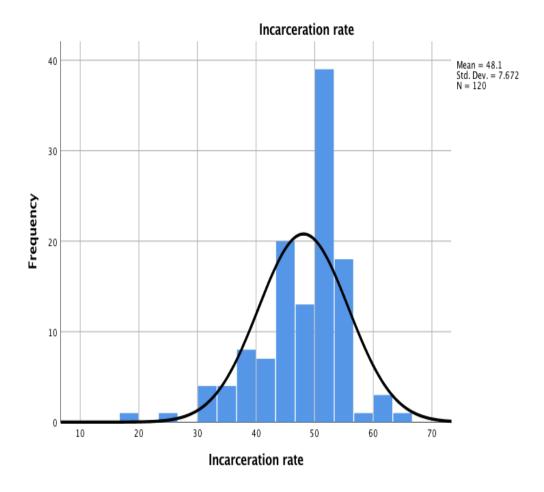


Figure 1. Histogram Dependent Variable: Incarceration Rate

# **Histogram 2: The Independent Variable Completed GED**

Figure 2, understanding the frequency of completed GED in a southeast correctional center is an interesting outcome. The highest frequency of completed GED was about 32 in the given intervals and the spread of the data. Since the highest peak is to the left of the figure, then the data is skewed to the left. There is zero data of completed GED to the left of the highest peak, indicating there was a sudden change of the cumulative data. There were also zero frequency rates in between intervals 15 and 20. The sudden change of interest in not completing GED within the Southeast correctional center is an interesting outcome in this study. The sudden

change of interest in not completing GED within the Southeast correctional center would be a topic of interest for future studies evolving from this dissertation.

The number of individuals who completed GED, and comparing it to zero frequency rates between intervals 15 and 20 indicates zero completion during some months for GED tests. The months that there were zero completion rates for GED were not specified in the histogram but show to occur in more recent years since intervals 15 and 20 are to the right of the histogram. Further to the left side of the incarceration rate histogram signifies a higher completion rate of the GED tests at the beginning of the study. The study length is from December 2010 to December 2019.

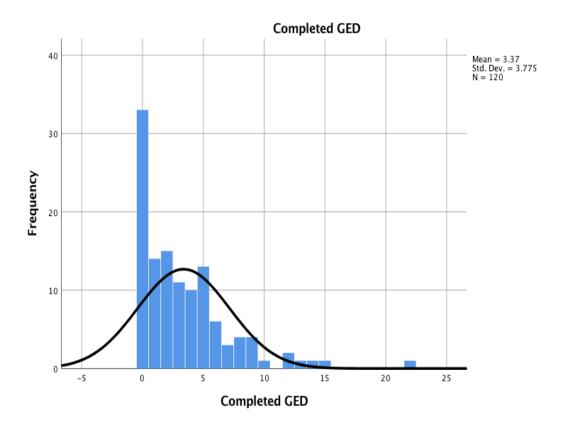


Figure 2. Histogram Independent Variable: Completed GED

**Histogram 3: The Independent Variable Completed Vocational Certificates** 

In the histogram, completed vocational certificates, the data appears to be spread.

Analyzing Figure 3, the frequency of completed vocational certificates identifies 37 to be the peak in the indicated intervals. The lowest peak is zero specified between intervals 175 and 250. In analyzing the 175 and the 250 intervals, this simply means that there were no students that completed the vocational certificate program at these peaks. The histogram can be interpreted as the frequency of completed vocational certificates in a Southeast correctional center appears to be of interest before the peak of 50 incarcerated students completing the vocational certificate program 37 times or 37 months. At just one interval at 250 indicates about 1 times or 1 month, the vocational program was completed with 250 incarcerated students.

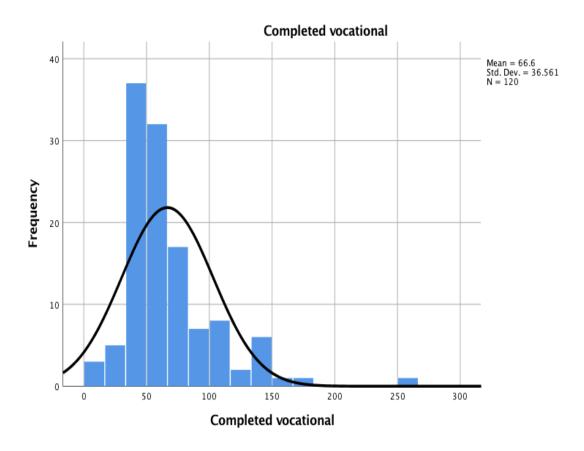


Figure 3. Histogram Independent Variable: Completed Vocational Certificate

# **Research Question**

The research question asked if completing programs during incarceration can predict incarceration rates. The research question is as follows: Does complete Vocational Certificates and General Education Development programs in a Southeast correctional center predict its incarceration rates? Depending on the type of program completed, completing programs during incarceration can predict incarceration rates. Completing the vocational certificates programs shows a decrease in incarceration rates, in comparison to completing the GED programs that show a rise in incarceration rates.

# **Hypotheses**

This study outlined a null hypothesis and two other hypotheses. Each hypothesis was unique, and the outcome of one of the variables proved to be unexpected. In understanding each of the hypotheses, the programs provided by the correctional institution need to be dissected to understand the outcome of the research. The hypotheses are as follows:

 $H_0$ : Null Hypothesis: Based on data from a Southeast U.S. correctional center, there is no relationship between the predictors, vocational certificate and General Education Development programs, and incarceration rates.

 $H_1$ : Based on data from a Southeast U.S. correctional center, the more completed vocational certificate and General Education Development programs, the higher the incarceration rates.

 $H_2$ : Based on data from a Southeast U.S. correctional center, the more completed vocational certificate and General Education Development programs, the lower the incarceration rates.

The research used p  $\leq$  .05 to reject the null hypothesis. The  $p \leq$  .05 to reject the null hypothesis applied to completed Vocational Certificates and the General Education Development

programs as outlined in Table 11. The  $p \le .05$  to reject the null did not apply to the completed GED. In other words, GED tests are not statistically significant since it was at p=.061. Thus, it can be estimated that p=.061 leads to concluding that we fail to reject the null hypothesis for GED tests. The null hypothesis is not rejected for GED tests, and there is no significant change in incarceration rate due to completing GED tests in the selected Southeast correctional center. There is no relationship between GED tests and incarceration rations.

Vocational Certificates were statistically significant at *p*=.006, as outlined in Table 11. Therefore, we do not fail to reject the null hypothesis for Vocational Certificates and incarceration rates. Or, the null hypothesis is rejected, and there is a significant change in incarceration rates due to completing vocational certificates in the selected Southeast Correctional Center. There is a relationship between Vocational Certificates and incarceration rates.

In contrast, even though analyzing the coefficients model displays conflicting outcomes in statistically significant values, it is the regression of all variables measured in Table 10 that is also accounted. For this study, a 95% confidence interval or 5% level of significance is chosen. The 5% level of significance is set at .05. In Table 10, the analysis of variance or ANOVA has a significant value of .002, indicating there is a relationship between the predictor's prison programs and incarceration rates. The F-ratio indicates that a value greater than 1 is an efficient model. The value is at 6.338, which means this study is an efficient model.

# **Summary**

For the variables to be statistically significant, then the *p*-value was set to be lower or equal to .05 to reject the null hypothesis. Though the predictor, GED Tests lies at .06 (see Table 13) above the level of significance; however, it can be assumed that all the variables measured

are statistically significant since regression is at .002 (see Table 12). The hypothesis is indicating the more that complete correctional institutional programs, then the lower the incarceration rate can be concluded. Therefore, completing programs during incarceration can predict incarceration rates. Individuals who complete correctional center programs predict incarceration rate outcomes.

Understanding these findings in depth can provide various interpretations of the effectiveness of programs offered for incarcerated individuals. The effectiveness of the programs during incarceration not only has consequences on policymakers, but there is also an included rippling effect towards impacts on immediate families of prisoners, victims, and society as a whole. Most importantly, understanding prison programs and their effects on the incarcerated individual changes the financial needs of the prison. The following chapter will interpret the findings and provide limitations, recommendations, implications, and conclusions of this study.

### Chapter 5

The purpose of this quantitative study was to evaluate the relationship between correctional department support programs such as GED and vocational training and incarceration rates in a Southeast state. The time frame in this study ranged from December 2010 to December 2019. Additional outcomes from this study include the number of incarcerated individuals who have completed correctional institutional programs and the level of incarceration rates through several years as the key findings.

The key findings of prison programs and incarceration rates in the Southeast correctional facility indicated overpopulation within the correctional center prison system. The BJS (2019) confirmed that U.S. prisons were overpopulated. Though the Southeast correctional center continues to have a problem of overpopulation, their transparency in reporting prison rates and completed program rates surpasses all U.S. prison websites. Although the Southeast correctional center is overpopulated, the therapeutic education facility is the most underpopulated building that holds inmates in the institutions. Also, the Southeast state does not have a law that makes it mandatory for prisoners to obtain their education during incarceration.

This study addressed the relationship between the respondent incarceration rates, and its predictors (completed vocational certificates and completed GED tests). The result of multiple linear regression indicated the variable of completed GED tests was .06 above the statistically significant value set at  $p \le .05$ . As a result, for GED tests the null hypothesis was not rejected. In contrast, the variable of the completed vocational certificate indicated that the variable was .006 below the statistically significant value set at  $p \le .05$ . Therefore, for completed vocational certificates, the null hypothesis was not rejected. In addition, because the overall regression

indicated a statistically significant value at =.002 for the overall study of the variables, the null hypothesis was not rejected.

## **Discussion and Interpretation of the Findings**

# **Incarceration Rates and Prison Programs**

The findings confirmed knowledge in the discipline of prison programs and incarceration rates. Incarceration rates are significant in terms of prison programs. According to the literature review, studies on the effects of prison programs offered to prisoners and incarceration rates ere minimal. Qualitative studies focused on either incarceration rates or prison programs. Teachers in prison understand educational programs reduce recidivism rates (Michals & Kessler, 2015). Researchers attempted to confirm the need for prison programs to reduce incarceration. Findings from the current study indicated that prison programs such as vocational certificate and GED are beneficial.

There were no quantitative studies that included vocational certificates and GED programs as independent variables with a correctional institution; however, there were several quantitative studies that included incarceration rate as a dependent variable. Findings in the current study confirmed the need to promote prison programs to reduce incarceration rates. Though several U.S. correctional centers attempted to provide transparency in their public websites, only one Southeast state provided enough statistical information on GED tests, vocational certificates and incarceration rates to conduct multiple linear regression.

Th literature review included critical views on the effectiveness of vocational certificate and GED programs in reducing incarceration rates. The critical views suggested that incarceration rates would increase if vocational certificate programs were removed from

correctional centers. Views from scholars that programs in correctional centers do not have any effect on incarceration rates appear to be inaccurate.

Though the outcome of the current study indicated no significant relationship between GED tests and incarceration rates, findings suggested that the GED tests in prison are more challenging due to the unique environments of the prison. According to the research, peer pressure, prison lockdowns, dehumanizing environments, and students being pulled out of class are some of the barriers that make it more difficult for incarcerated individuals to complete the GED tests. For students to feel free from harm, a teacher must be able to satisfy all of Maslow's hierarchy of needs in the student (Almeda, 2018). The challenge for teachers attempting to meet these needs for students includes implementing lesson plans or teaching. According to Liu (2016), to be effective and professional, teachers must meet students' hierarchy of needs. There are obstacles and challenges not only for the student for the teacher as well.

The alpha between GED tests and incarceration rates was 0.06 and the level of significance that was set at .05. Duke (2018) identified the cost of educational programs for inmates in Colorado to be \$150,000.00 annually. In contrast, the average cost of an inmate in 2017 was \$9945 per day or \$36,299.25 per year (Conway, 2018). In referencing Duke (2018), and Conway (2018), housing an inmate is 4 times lower than the amount provided for educational programs of an entire correctional institution.

On the other hand, the vocational certificates showed a significant relationship to incarceration rates. The average time in completing a vocational certificate in the literature review was 18-20 credit hours (Reed, 2016). With the focus on a career, the benefits of earning a vocational certificate also proved to be better for employment with welding certificate holders earning \$52,225 per year (Glastris, 2018). Further, according to Reed (2016), earning the

vocational certificate costs less in tuition in comparison to postsecondary programs that were over 2 years. As a result, the literature review supported the findings between the relationship of incarceration rates and vocational certificates.

Perhaps one of the most critical issues is using taxpayer dollars to educate prisoners rather than correct or punish. Wyant and Lockwood (2018) stated that higher levels of critical thinking skills can result from specifically designed programs offered by a prison. In addition, according to Sobol (2016), the United States also leads the world in prison population. The findings in the current study supported the research regarding the positive effect of implementing vocational certificate programs and GED tests within correctional institutions for the purpose of reducing incarceration rates. Education benefits the inmate and society (C. L. Meyer et al., 2016). Taxpayer dollars are worth the investment when the money is used to create vocational certificate programs and GED tests in correctional centers. Furthermore, the current study findings suggested that by reducing incarceration rates, society can become more efficient in building positive communities for future generations.

Extending knowledge of prison programs and incarceration rates in this study was promising. In analyzing incarceration using the quantitative approach as a nature of the study, several peer-reviewed journals used incarceration rates as a dependent variable in minimal quantitative studies. In searching for quantitative peer-reviewed journals regarding the dependent variable incarceration rates, and the independent variables, prison programs, there were no studies found. Further, available public data to research this subject area could not be found in peer-reviewed quantitative journals or readily available public prison records except for the selected Southeast correctional center. Therefore, this nature of the study is the first of its kind in using multiple linear regression to evaluate incarceration rates and prison support

programs offered to inmates during imprisonment. Further, the nature of the study is the most recent in evaluating incarceration rates and correctional center support programs ranging from the years 2010 to 2019.

# Theory of Needs Applied to Research Question and Hypotheses

In the context of the theoretical framework used, Abraham Maslow's Theory of Needs (1954), there is relevance in the outcome of this study. The research question asks if completing correctional center programs predict incarceration rates. In the literature review, the research question is applied to the Theory of Needs by connecting physiological, safety, love, esteem, and self-actualization to completing the correctional center programs. The study surpasses the first two needs since physical and safety needs are met by recognizing the United States Constitution Fourth Amendment regarding the prohibition of cruel and unusual punishment (Jolley & Donahue, 2016). As a result, the study begins with the belonging and love theory initializing in the classroom setting or upon the instant-the incarcerated individual registers with the offered correctional institution program. In the literature review, Slaten, Elison, Deemer, Hughes & Shemwell (2018) confirmed that if the student does not feel belonging in a classroom, the result will be difficulty in learning. As a result, upon enrollment, if the incarcerated individual feels the love and belonging, more easiness and less difficulty in comprehending instructional work will be an encouragement to complete the correctional institutional program offered. Also, referenced by Terenko (2019), completing adult education leads to self-actualization.

The data outcome displays a decline in incarceration rates with individuals who have completed the vocational programs. This decline indicates that some form of self-actualization has occurred with inmates who have completed the vocational certificate programs. This occurrence proves there is success in the implementation of programs for inmates who complete

the vocational certificates during incarceration. In contrast, the data outcome in regards to the increase of incarceration rate with its predictor completed GED Tests indicates there is some sort of failure in implementing this program in the selected Southeast correctional center. More work is needed for the GED Tests program to be successful in the selected Southeast correctional center.

## Histograms and the Variables

The histograms and the variables are separate sets of data that simply show the frequency rate of each variable. The peak or the highest point of each histogram is the indicator at where skewness occurs, whether it be to the left or to the right. Skewness is the lack of symmetry in a frequency distribution. In each of the histograms, skewness occurred in different areas for each variable.

In analyzing the outcomes of the histograms for the variables, the most interesting occurrence of skewness was the completed GED histogram. In the completed GED histogram, the highest frequency of completed GED occurred at the beginning of the histogram. The first bar, located at 0 intervals had a frequency of 33 individuals who completed the GED program. The high rate of 33 individuals who completed the GED program indicated there was an interest in earning a high school diploma. These findings show that if there is interest in a program there will be a high participant rate, and if there is no interest then there will be a low participant rate. The participant rate has an effect on the outcome or results of incarceration rates and GED programs. The more that are interested in completing the GED program, the lower the incarceration rate, according to the hypothesis.

The peak of completed GED began in the early recorded data stages and lowered throughout the years of its implementation in the Southeast correctional center. In contrast to

supporting previous findings, the completed GED that was lowered throughout the years of its implementation in the selected Southeast correctional center refute the findings. In the literature review, the research indicated that the content of the 5<sup>th</sup> GED version test was more complicated and challenging. The 5<sup>th</sup> GED version test was launched in 2014 and updated on May 1, 2017 and it was more difficult to pass (GED Testing Service, 2019). In this study, the cumulative data used for completing GED began in December 2010.

# **Limitations of the Study**

Though it was an advantage that the data was readily available, I could not gain access to how it was collected. The inability to collect data on my part served as a barrier since the readily available data could not be critically analyzed on how it was collected. Questions relating to gender, race, learning styles, and even mental disabilities of incarcerated students who were registered in the programs could not be addressed due to the lack of information in the available public data used. Though the data from the therapeutic facility was accurate and precise, there could be under-represented data in the area of completed GED programs of the selected Southeast state since the reported annual rates did not always coincide with the monthly rates.

In terms of addressing the external validity of the study, the data provided by the selected Southeast correctional center displayed numbers every month. It was noticed that in certain months, zero completion rates were displayed for GED tests. The data did not explain why there were zero completion rates; however, past statistical monthly records did show completing GED Tests to begin in April 2007. As research in the literature review, it is also important to note the 2014 computer-based fifth version of the GED is more difficult and challenging than previous GED tests (Brinkely-Etzkorn & Ishitani, 2016) In this study, a cumulative ten years from 2010 to 2019 were evaluated and analyzed.

#### Recommendations

Further research needs to be compiled into understanding incarceration rates and correctional center programs. Evidence in this research concludes there is a positive outcome if prison programs are implemented with student completion. If more research is not conducted in prison programs and their effects, there will continue to be high incarceration rates in America. The benefits of researching prison programs are abundant since the outcome has an overall impact on society. The need for research in prison programs can improve prison reformation, prison policy, family function, death rate, education, etc. Lowering incarceration rates results in lowering crime rates. Lower crime rates are necessary for a more peaceful and functional society.

Recommendations for further research are grounded in the strengths and limitations of this study. Correctional Centers need to open their doors to society in delivering data that would not harm, but only benefit the incarcerated individual. The fear of delivering private information to the public must be taken from prison administrators, and replaced by an administration that can provide public data to society without including prisoner identity. By providing more public ready to use data, social scientists will be able to perform several types of analysis that could improve prison policy programs and incarceration rates. The following are some recommendations and suggestions on how prison data can be delivered while maintaining prisoner confidentiality:

- Legislation must make it mandatory for all prisons in America to deliver their monthly report via the website.
- Legislation must make it mandatory for all prisons in America to deliver consistent monthly data on prison programs via the website.

- Research and planning divisions of the Department of Corrections in the United States must be more transparent and available to public requests.
- Heads of the Department of Corrections in the United States must be more transparent and available to public requests.
- Educators of the Department of Corrections in the United States must understand the
   Theory of Needs is applicable to all prisoners in the classroom setting.
- All employees of the Department of Corrections in the United States must understand the
   Theory of Needs is applicable to all prisoners throughout the Correctional Center.

The programs delivered inside the prison walls are unique since the individuals participating in the program are confined and are expected to perform with obedience towards higher authorities. For the prison program to be effective, it must be offered rather than forced on to the prisoner. If the prisoner is forced to participate in any time of program or activity within the prison walls, succession in completing the program or activity could lead to failure. Any individual who experiences failure is prone to feelings of lower self-esteem.

## **Implications**

## **Positive Social Change**

With this study complete, the potential impact for positive social change higher than previously expected. Previously anticipated, the implications for positive social change was to increase improvements in incarceration rates and correctional center programs offered to inmates and to increase awareness in the lack of transparency of prison programs data. With the study complete, the additional awareness of improving prison programs using lawmakers to address the problem can be added as a tool in ensuring positive social change is occurring. Ensuring

lawmakers to address the problem of delivering easily accessible public data for research can be addressed in multiple forms.

In the United States, democracy allows its citizens to vote in their lawmakers. Simple letters to lawmakers or simple telephone calls can be made to the local political office that can be undertaken to ensure positive social change is enforced within the incarceration rate and prison program sector. In completing this research, another study is completing objectives in improving incarceration rates and prison programs. The completion of this study will add to current data that is not available in scholarly peer-reviewed journals.

Since this study is based on factual information based on the most recent secondary data, this study adds to empirical research. High incarceration rates in the United States are real, and it is a sensitive issue that needs greater attention than what is now designated. Empirical studies will provide greater strength in determining the effectiveness of prison programs in the correctional center community. Unfortunately, minimal data exists in this issue due to its sensitivity and conflicting views of prison operations. This study is factual, and it promotes the evidence that there is a relationship between incarceration rates and prison programs. For social change to occur, more studies need to be prioritized and creatively promoted in the subject area of incarceration rates and prison support programs.

#### **Conclusions**

Though this study initially began by attempting to research organizational centers that provide programs for formerly incarcerated individuals, it became difficult extremely difficult and time-consuming to pursue this route as a means of study due to confidential agreements between formerly incarcerated individuals and the organizations involved. After several months of researching different correctional centers and programs offered for incarcerated individuals in

the United States of America, the selected Southeast correctional center showed considerable transparency in providing statistical information on completion rates of prison programs offered to the inmates. Finding this statistical information was a dream come true for any researcher in the field of criminal justice. The statistical information proved to be beneficial and worthy for social scientists to engage.

In conclusion, this research is the most recent study on incarceration rates and prison programs. Though the literature review initially included several peer-review journals that dated more than seven years, the journals were replaced by more recent sources from years 2014-2019 with the exception of the *Holy Bible* and Maslow's Theory of Needs. Not only is this research robust and solidified with significant data, but it is relevant to American society as prison reformation needs to be addressed due to the current phenomenon of mass incarceration.

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