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The Effects of Prison Program Participation on Recidivism of Ex-Offenders in Mississippi

Chad Lamar Stocks

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The effects of prison program participation on recidivism of
ex-offenders in Mississippi

By

Chad Lamar Stocks

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Community College Leadership
in the Department of Leadership and Foundations

Mississippi State, Mississippi

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2012

The effects of prison program participation on recidivism of
ex-offenders in Mississippi

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Correctional education research strongly suggests that an increase in inmates' education will reduce recidivism rates. This study utilized logistic regression techniques to investigate the effects of prison education program participation on recidivism and employment rates. Using this method made it possible to conclude that inmates who participated in prison intervention/educational programs were significantly less likely to recidivate. The purpose of this study was to identify to what extent the Mississippi Department of Corrections' (MDOC's) intervention/educational programs reduce recidivism.

The pre-existing data used were historical information collected as part of a longitudinal study on Mississippi inmates since 2000. The data were transferred every quarter to the National Strategic Planning and Analysis Research Center (nSPARC) for management and analysis. Initial tests found that several variables had a relationship with recidivism.

The findings in this study suggest that ex-offenders who completed an education/vocational program or completed a counseling program were 87% ($p < 0.001$), 9.9% ($p < 0.005$), respectively, less likely to recidivate than those ex-offenders who did not participate in any type of education or intervention program. The results also suggest that ex-offenders who enrolled in but did not complete an education/vocational program were 10% ($p < 0.005$) less likely to recidivate than those ex-offenders who did not participate in any type of education or intervention program.

Recommendations that result from these findings include an increase in the number and quality of intervention/educational programs in Mississippi prisons. Policies could be suggested and/or implemented that would reduce the number of people who violate the law upon their re-entry into society.

DEDICATION

I dedicate this dissertation to my wife, Sandra, and my daughter, Carly, for their loving support and unselfish encouragement during this long journey of educational endeavor. I am extremely grateful for their patience and understanding of the time and effort that it took to reach this milestone. I also dedicate this to my mother, Debbie Ganzerla, for her lifelong support of my educational goals. The three of you have always been there to lift my spirits and push me to finish this degree.

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TABLE OF CONTENTS

DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vii
CHAPTER	
I. INTRODUCTION	1
Statement of the Problem	1
Purpose of the Study	2
Significance of the Study	3
Research Questions	5
Definition of Key Terms	5
Theoretical Framework	7
Organization of the Study	8
II. REVIEW OF LITERATURE	9
Background	9
Education, Workforce, and Crime	11
Understanding High School Dropouts	12
Education and Income	14
Education, Health, and Economics	14
Mississippi Statistics	15
Education, Employment Gap, and the Ex-Offender	16
Recidivism Rates	17
The Effects of Prison Education on Recidivism	19
Age and Recidivism	25
Race and Recidivism	26
Gender and Recidivism	28
Marital Status and Recidivism	29
Violent vs. Non-Violent Offenders and Recidivism	30
Incarceration Rates, Recidivism, and Cost	32
Brief History of Prison Education	34

Prison Industry Legislation	36
Types of Prison Intervention Programs	36
Prison Education and Community Colleges	38
Chapter Summary	40
III. METHODOLOGY	42
Purpose of the Study	42
Research Design.....	42
Data Collection Procedures.....	43
Data Analysis.....	44
Research Questions.....	46
Variables	47
Dependent Variable.....	47
Independent Variables.....	47
Statistical Analysis.....	52
Logistic Regression Model.....	52
Summary.....	53
IV. FINDINGS OF THE STUDY.....	54
Descriptive/Demographic Statistics.....	54
Explaining the Relationship Between Prison Program Enrollment and Recidivism	59
Finding I.....	64
Finding II	64
Summary	65
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....	66
Summary of Findings.....	66
Race and Recidivism.....	67
Gender and Recidivism	68
Age and Recidivism	69
Education and Recidivism.....	69
Marital Status and Recidivism	71
Violent vs. Non-Violent Offenders and Recidivism	71
Employment After Release	73
Conclusions.....	73
Implication for Practice.....	74
Limitations	75
Recommendations for Future Research	76
REFERENCES	77

APPENDIX

A	IRB APPROVAL LETTER.....	86
B	MISSISSIPPI DEPARTMENT OF CORRECTIONS APPROVAL LETTER	88
C	nSPARC APPROVAL LETTER.....	90
D	STRATEGIC PLAN FOR WORKFORCE DEVELOPMENT IN MISSISSIPPI FOR 2007–2009.....	92

LIST OF TABLES

3.1 Variable Description	50
4.1 Descriptive Statistics.....	57
4.2 Logistic Regression of the Likelihood of Offender Recidivism.....	60

CHAPTER I
INTRODUCTION

Statement of the Problem

The reduction of recidivism is an ongoing problem in the United States Correctional System. Recidivism is a multifaceted problem that affects all aspects of society. As such, researching this phenomenon from a variety of frameworks bears significance, including a data-based understanding and an in-depth exploration of the phenomenon (Garzarelli, 2011). Many inmates have been unsuccessful in their educational experiences before incarceration (DiMambro, 2007). Approximately 40% of inmates in state and federal prisons and jails do not have a high school credential, compared to 18% of the general population. While more than one-half of the general population has some college education, less than one-fourth of all state and federal inmates have any postsecondary education (Harlow, 2003).

Hughes and Wilson (n.d., as cited in United States Department of Education, 2009), suggest that —many of these inmates were unemployed or underemployed before being incarcerated. Deficiencies of education credentials and workforce skills among inmates are noteworthy factors to consider, because 95% of the more than 2.3 million inmates incarcerated in the United States will eventually be released” (p. 5). Bushway (1998, as cited in United States Department of Education, 2009) suggested that —these low-skilled ex-offenders will face a labor market that increasingly requires

postsecondary education degrees or certificates. Moreover, research demonstrates that incarceration can undermine a person's ability to find and maintain a living-wage job" (p. 5). Visher, La Vigne, and Travis (2004, as cited in United States Department of Education, 2009), suggest that "being deficient in the skills necessary to transition productively in the general public and find gainful employment, suggest that many ex-offenders return to their unlawful behavior. Most inmates want to work upon release from prison, and, if they do, they are less likely to recidivate" (p. 5).

Research studies show that a variety of intervention and/or educational programs have a positive influence on recidivism. Understanding all facets of those programs aids in determining variables that contribute to program success (Garzarelli, 2011). This study was designed to explore and validate the characteristics of inmate participation in education, training and intervention programs that may reduce recidivism for incarcerated individuals rehabilitated through the Mississippi Department of Corrections (MDOC).

Purpose of the Study

The purpose of this study was to determine the effects of participation in intervention, education, and training programs by incarcerated individuals on subsequent recidivism. Both the prison population that completed a correctional intervention/educational program and the prison population that did not complete or participate in a correctional intervention/education program were examined. Through these examinations and an understanding of correctional education and measures of correctional program effectiveness, conclusions may be drawn regarding the role that

these programs play in reducing recidivism among ex-offenders rehabilitated within MDOC.

Significance of the Study

The United States holds the distinction of sending more people to prison than most countries in the world (Liptak, 2008; Williams, 2002). Incarceration rates for United States residents escalated 700% between 1970 and 2005 and is projected to continue escalating for years to come (Pew Charitable Trusts, 2007).

The high rates of recidivism in the United States reflect a need for more in-depth studies of preventive methods to reduce recidivism and to reduce collateral damages that recidivism causes to other individuals and to social agencies (Garzarelli, 2011). Further, crime research finds that higher educational attainment reduces crime both by juveniles and adults while low educational attainment is a major barrier to employment for many released inmates. Education gives individuals basic skills to enter the labor market and develop self-efficacy (Marano, 2003). These proven traits promote education as a fundamental tool for reducing recidivism (McKean & Ransford, 2004). The economic cost of crime is high. Catalano (2004) suggested that 20% of American households are indeed victims and bear most of the cost of crime, but these are not (directly) counted in the public's balance sheet (Levin, Belfield, Muenning, & Rouse, 2007). From the public's perspective, there are four main costs: criminal justice system costs for policing and for trial and sentencing, incarceration costs, state-funded victim costs

(medical care and lost tax revenues), and expenditures of government crime prevention agencies (Levin et al., 2007).

While policymakers are sensitive to the enormous expense associated with both education and incarceration, they recognize the association between low academic attainment and incarceration rates. Nevertheless, policymakers are generally faced with the difficult decision of funding priorities. Mississippi policymakers have taken a proactive step to gather longitudinal data to help make sound policy decisions with the creation of the State Workforce Investment Board (SWIB). MDOC is one of several partners that participate in the state longitudinal data system. Under the auspices of SWIB, the data are used to generate workforce outcomes that measure employment rates, employment retention, and wages for ex-offenders. A key project of SWIB is to examine how workforce development and program intervention reduce the probability of the ex-offender reentering the correctional system.

This research study provides an analysis of existing data and is the first of its kind in the area of education and skill attainment and counseling and intervention participation of ex-offenders in Mississippi. This is also the first study to evaluate data from MDOC researching recidivism and factors that contribute to it. This research should be beneficial to correctional professionals who must develop and implement programs to enable this population to become productive self-sufficient members of the workforce and society. Researchers in other states have reached similar conclusions (Reynolds, 2007; Roos, 2005; Williams, 2002). This research and its findings relate to the education,

rehabilitation, and recidivism rates for ex-offenders in the state of Mississippi. As such, this study may create a framework for future rehabilitation policies that save taxpayers money.

Research Questions

The study examines the extent to which prison intervention/recovery programs influence recidivism rates and job placement rates of ex-offenders. Specifically the study examines two important research questions:

1. Do prison intervention/recovery programs such as skill training programs or rehabilitation programs reduce recidivism rates of participants?
2. Do individual characteristics such as age, race, gender, educational attainment, marital status offense type, employment, and prior offense influence recidivism rates of ex-offenders released from MDOC between 2005 and 2008?

Definition of Key Terms

The definitions used within this research study are as follows.

Dropout refers to someone who leaves the secondary educational system without a high school diploma (Shannon & Bylsma, 2003).

Dropout prevention is an organized school program to minimize the chances that a student will become at risk of dropping out (Jerald, 2007).

Dropout Recovery refers to options for keeping older students in the pipeline when intervention and prevention are not enough (Jerald, 2007).

General Education Development (GED) is a process of earning the equivalent of a

high school diploma, which is called a GED certificate or credential (Taylor, 1993).

Interventions are programs and initiatives to help high-risk individuals get back on track (Jerald, 2007).

Jail is traditionally defined as a place in which persons are kept in custody pending trial or serving short sentences (Williams, 2002).

NCLB refers to the No Child Left Behind Act of 2001.

Parole is a conditional release from prison by a discretionary order of a paroling authority. The parolee is obligated to report to a supervisory authority (parole officer) and to observe other general and specifically imposed conditions until the specified time of parole has expired (Williams, 2002).

Probation refers to a correctional technique whereby a convicted offender is given a suspended sentence and released under supervision rather than being sentenced to prison (Williams, 2002).

Recidivism, in law, the repetition of criminal acts by persons previously convicted of crimes (Williams, 2002); relapse into criminal activity and generally measured by a former prisoner's return to prison for a new offense (McKean & Ransford, 2004).

Vocational Education refers to secondary or postsecondary educational programs that prepare individuals for industrial and commercial occupations that do not always require a college or university degree (Williams, 2002).

Theoretical Framework

The theoretical framework that guided this study was based on the theory of human capital. The theory of human capital assumes that people decide whether to invest in their human capital based on analyses of the expected costs and future returns from the investments (Beaulieu & Mulkey, 1995). The theory of human capital is based on economics and has been widely embraced in the United States, as well as globally (Collins-Molden, 2009). This theory is used to translate economics, people, education, skill, and individual attainment into scientific, measurable outcomes (Becker, 1975). The human capital theory can explain the rationale for the need of correctional education and/or intervention programs. The theory suggests investing in education and training will lead to better employment outcomes (Becker, 1975, 1994). Therefore, based on the theory of human capital, investments in correctional education should generate positive employment outcomes for ex-offenders. One way of being successfully integrated into society is for ex-offenders to gain employment and thus, reducing the likelihood of returning to unlawful behavior (Lewis, 2006). Education and/or on the job training, can improve one's human capital stock, which includes cognitive skills, knowledge, and experience. This improved human capital stock, in turn, enhances productivity, which should lead to higher earnings (Beaulieu & Mulkey, 1995). Investing in the people or human capital is also crucial to a sustainable labor market (Shultz, 1979). Those who do not prepare themselves for a profession will remain inadequately prepared for opportunities in employment that are associated with higher earnings. According to Bushway (1998, as cited in United States Department of Education, 2009), these low-skilled ex-offenders will face a labor market that increasingly requires postsecondary

education degrees or certificates. The fact is many ex-offenders are not prepared for employment upon release because their education or skill levels are minimal or non-existent or they have addictions or mental illnesses that have not been addressed. Without skills and training, or counseling or intervention/treatment, ex-offenders will unsuccessfully enter the workforce as well as society unable to satisfy their basic needs. Education and specific skills training as well as other intervention are necessary to enable change for the ex-offender population (Collins-Molden, 2009).

Organization of the Study

This research study is organized into five chapters. The first chapter introduces the study and includes the statement of the problem, purpose of the study, significance of the study, research questions, and definition of key terms used in the study. Chapter II organizes a review of related literature that focuses primarily on the value of education and high-end skills pertinent to an individual's success in the workforce. The literature also discusses the relationship between education and incarceration and discusses findings of other research related to the study. Chapter III discusses the methods and procedures that were used in this study. This chapter includes the research design, data collection procedures, data analysis used, and a description of the dependent and independent variables used for the study. Chapter IV presents the results and statistical analysis of the study. The analysis of the study includes demographic information of ex-offenders that were incarcerated in MDOC and examines each of the two research questions. Chapter V includes the summary of findings and implications, conclusions drawn from the study, limitations of the study, and recommendations for future research.

CHAPTER II

REVIEW OF LITERATURE

Background

The economic crisis should not have been a surprise to Americans. For decades there have been warnings that the country's poor educational performance would cost the United States its dominance in the world economy. However, the warnings have been ignored. During this period, the Dow Jones Industrial average continued setting record highs, the United States gross domestic product continued to grow, and the nation enjoyed the longest economic expansion in its history (Amos, 2008). A strong public consensus now supports enhancing the skills of America's workers, especially through more and higher-quality education and training (Holzer & Lerman, 2007). The economic future of the United States depends on the next generation of young Americans becoming ready for college, work, and life. Unfortunately, many young people are reaching young adulthood without the skills and competencies needed to succeed (Campaign for Youth, 2008). Therefore, many youth and young adults turn to crime as a primary source of income and thus find themselves incarcerated and a tax liability of the state and federal penal system. To compound the problem, many of those who are incarcerated will leave confinement without any means of education, skill training, intervention, or recovery efforts, meaning they still lack emotional or employment skills and/or credentials that qualify them for sustainable, productive employment (Erisman & Contardo, 2005).

This scenario is further explained in a recent publication by the United States Department of Education (2009):

Most of the nearly 700,000 state prisoners released each year are ill equipped to meet the challenges of reentering society. More than two-thirds of released prisoners are arrested within three years of leaving prison, and almost half are re-incarcerated because they are lacking marketable skills, are burdened by a criminal record that makes them ineligible to be hired in many occupations, and have few supports to make transitions to society. To make matters worse, these statistics do not account for federal inmates and those currently incarcerated in jails that also are caught in this cycle of catch-and-release. (p. 1)

Over the past 20 years, myriad studies have been conducted on student retention and dropout prevention (Association for Career and Technical Education [ACTE], 2008; Almeida, Johnson, & Steinberg, 2006; Amos, 2008; Levin et al., 2007; Shannon & Bylsma, 2003, 2005). Since 2000, significant attention has been turned toward recovering those students who have already dropped out of school (Sum, Khatiwada, McLaughlin, & Palma, 2009; Walley, 2007). More recently, studies have provided evidence of the economic losses caused by high school dropouts that impact the United States and Mississippi in particular (Walley, 2007). Previous studies also suggest that ex-offenders indeed tend to be predominately high school dropouts and of a young age (Harer, 1995; Moretti, 2005; Walley, 2007). This population is more likely to enter the correctional system at some point (Moretti, 2005; Sum et al., 2009; Walley; 2007). Research also suggests a positive relationship between participation in prison educational programs and reduced rates of recidivism, post-release employment and education, and other public

cost savings, such as reduced criminal justice costs and reduced dependence on welfare and other government programs (Fabelo, 2002; Meyer, Fredericks, Borden, & Richardson, 2010).

The following review of literature focuses on the importance of education and its impact on society, the workforce, and the economy. The literature also reflects the strong relationship among educational attainment, ex-offenders, and recidivism and their combined influence on the workforce. The review of literature additionally focuses on the importance of intervention, recovery, and educational programs offered to offenders in correctional intuitions and the impact the programs have on recidivism and job retention rates.

Education, Workforce, and Crime

In the past 60 years, high school completion has grown in importance, moving from the 1950s when a high school diploma was a valued asset in the labor market, to the 1970s when a diploma opened doors to promising careers, to recent years when advances in technology have transformed the labor market into one that demands highly skilled workers with, at minimum, a high school diploma (ACTE, 2008; Kaufman, Alt, & Chapman, 2004). Amos (2008) suggested that many of the manufacturing jobs that once offered attractive options for high school dropouts have been eliminated. Whereas in 1950 manufacturing's share of the total employment in the United States was 33.1%, by 1989 it was down to 18.2%, and by 2003 it had fallen to 10.7%. Amos (2008) also suggested that since 2000 more than 3.5 million jobs have disappeared. Many jobs once held by high school dropouts or by individuals who obtained only a high school diploma

are being automated or going overseas, leaving minimally educated Americans with increasingly diminished options to support themselves and their families (Amos, 2008).

Crime research finds that higher educational attainment reduces crime both by juveniles and by adults. Higher educational attainment may directly influence criminal predisposition. The relationship between dropouts and those incarcerated reflects that dropouts comprise 50% of the state prison inmate population (Bonczar, 2003; Levin et al., 2007). Amos (2008) cited a 2003 report from the Bureau of Justice Statistics, finding that nearly 75% of America's state prison inmates, almost 60% of federal inmates, and almost 70% of jail inmates had not completed high school. Sum et al. (2009) quoted remarks made to a 2006 Chicago conference on high school dropout problems in Illinois; then State Senate President Emil Jones noted that —dropping out of high school was an apprenticeship to prison” (p. 11). Levin et al. (2007) reported that the average savings per new high school student graduate is \$26,600. Most of the savings are from lower incarceration costs, although substantial savings result from lower criminal justice system costs. Amos (2008) suggested that almost \$2.8 billion in additional annual earnings would enter the economy if more students graduated from high school.

Understanding High School Dropouts

Levin et al. (2007) suggested that an individual's educational attainment is one of the most important determinants of his or her life chances in terms of employment, income, health status, housing, and so forth. In the United States many share a common expectation that all citizens will have access to high-quality education to help them overcome inequalities that they will face in their lifetimes. Levin et al. (2007) reported

that even with similar schooling resources, educational inequalities persist. Some students who start school are at an education and economic disadvantage.

The number of high-school-aged students who do not complete high school is receiving increased attention as a serious challenge facing the United States education system. The dropout problem is likely to become more serious in the coming years (Steinberg & Almeida, 2004). Shannon and Bylsma (2003, 2005) suggested that no universally accepted definition of a dropout exists. The reports state that dropouts are typically defined as students who leave school before they graduate from high school with a regular diploma. The NCLB definition of a graduate (as cited in Shannon & Bylsma, 2003) considers those who receive a GED certificate or finish their secondary education with an Individualized Education Program (IEP) diploma as dropouts. To compound the problem of accurately defining who is a dropout, there exists no common measure for collecting estimates of school dropouts. The methods range widely, depending on who is counting, who is counted, and why they are counted. Literature on dropouts describes the difficulties in finding accurate numbers, regardless of the method. The problem can be linked to the definition as well as record-keeping practices (ACTE, 2008; Shannon & Bylsma, 2003; Pinkus, 2006). According to the National Center for Education Statistics (as cited in Kaufman, 2004), in 2001, an estimated 3.8 million youth ages 16 to 24 years (15% of all young adults) were neither employed nor in school. The number of disengaged youth grew by 700,000 (19%) since 2000. By 2010 the population of youth ages 16 to 24 years was projected to grow by 3.6 million (10%), with the greatest increase in minority groups (ACTE, 2008; Campaign for Youth, 2008).

Education and Income

One of the most significant relationships in economics is the link between education and income. More highly educated people have higher incomes (Levin et al., 2007). Amos (2008) suggested that dropping out of school is a million-dollar mistake. The average yearly income for a high school dropout in 2005 was \$17,299, compared to \$26,933 for a high school graduate (Alliance for Excellent Education, 2008; Amos, 2008; United States Census Bureau, 2006). Over the course of a lifetime, a college graduate will earn, on average, \$1 million more than a high school dropout. Levin et al. (2008) found similar results in their study; male high school dropouts earn \$117,000 to \$322,000 more than dropouts; those with some college earn significantly more; and the difference in lifetime earnings between a high school dropout and a college graduate is \$950,000 to \$1,387,000. Not only do dropouts feel the reduction of income but so does the local and national economy. The impact of students leaving high school is devastating to the economy. Failure to graduate from high school has both public and private consequences. Income is lower, which means lower tax contributions to finance public services (Levin et al., 2007). Over the course of a lifetime, a single high school dropout costs the nation \$260,000 in lost earnings, taxes, and productivity (Amos, 2008).

Education, Health, and Economics

The United States spends more on healthcare than any other country, and many Americans have access to the finest physicians and facilities in the world (Amos, 2008). Further, research has shown that education is also linked to a person's health status. High school graduates have improved health status and lower rates of mortality than high

school dropouts, and people who have a bachelor's degree or higher fare even better (Cutler & Lleras-Muney, 2006; Levin et al., 2007). Increased educational levels lead to the assumption that public healthcare systems could benefit from the savings. The savings to the public healthcare system could be realized because those with higher educational attainment are less likely to use public programs such as Medicaid because they typically have higher quality jobs that provide health insurance and other benefits (Amos, 2008; Levin et al., 2007). Levin et al. (2007) suggested that the educational impacts are significant. High school dropouts will use the public healthcare system resources at much higher rates than graduates. For example, a dropout will receive \$60,800 in Medicaid and Medicare payments or services over a lifetime up to age 65 years. A high school graduate will receive \$23,200 and a college graduate \$3,600. The lifetime average savings to the public healthcare system per expected high school graduate is \$40,000. Nationally, a conservative estimate finds that the states could save more than \$17 billion in Medicaid and expenditures for uninsured care nationally; a savings could be earned for each class of students who graduates from high school rather than one who drops out (Amos, 2008).

Mississippi Statistics

Mississippi is not immune to economic conditions, nor can Mississippi ignore the high school dropout problems. Mississippi Community and Junior College System, (2008) reported that the dropout rate in Mississippi was 26.6%; and another 6% in special education programs receive an occupational diploma instead of a high school diploma. Significantly, the national average for high school dropouts is 20%. The Alliance for

Excellent Education (2008) projected the estimated graduation rate for Mississippi for 2007–2008 to be only 61.8% with 15,322 students dropping out. These data are in line with the Mississippi Community and Junior College System (2008) report to lawmakers in Mississippi; only 60% of the state’s ninth graders graduated from high school, and in 2000 there were 477,000 adults 25 years of age or older who did not earn a high school diploma in Mississippi. That number is approximately 27% of the state’s population (Mississippi Community and Junior College System, 2008).

Education, Employment Gap, and the Ex-Offender

The 2-3 years that many inmates spend in prison and the years that some violent offenders are incarcerated provide society with a unique opportunity to alter their behavior and rehabilitate them to re-enter society and the job market as a productive citizen (Freeman, 2003). Newly released offenders face many challenges upon re-entry into the community; they must move forward along their healing path, continually make lifestyle changes, in the face of change many obstacles that test their commitment to change (Scott, 2010). Employment is a key component in the successful reintegration of offenders and in promoting lifestyle change, however, employment is one important area where offenders face many barriers that impede their ability to secure and keep a job (Scott, 2010). Employment provides offenders with responsibility, personal value, independence, dignity, and a stake in society (Eley, 2007). The incarceration experience should change offender’s assessment of benefits and cost of crime in two ways. First it should shift their preferences or values, so that they weigh more heavily the cost of crime on others relative to the benefits to them. Second it should change the options or

incentives facing them in favor of legitimate work relative to illegal activities. If these values were altered and legitimate incentives were given to inmates, the ideal criminal justice system would release inmates who would find work in the legitimate labor market and make legitimate contributions to society, their families and communities rather than return to crime (Freeman, 2003).

Recidivism Rates

McKean and Ransford (2004) defined recidivism as the relapse into criminal activity, generally measured by a former prisoner's return to prison for a new offense. Rates of recidivism reflect the degree to which released inmates have been rehabilitated and the role correctional programs play in reintegrating prisoners into society. The rate of recidivism in the United States is estimated to be about two-thirds, which means that two-thirds of released inmates will be re-incarcerated within 3 years (McKean & Ransford, 2004).

Erismann and Contardo (2005) reported that between 1985 and 2005 the United States experienced an enormous increase in the United States prison population that led to correspondingly large numbers of people being released from prison. This number was predicted to grow and would swell by more than 192,000 inmates by the year 2011. This 13% jump triples the projected growth of the general United States population, and will raise the prison census to a total of more than 1.7 million people. Imprisonment levels are expected to keep rising in all but four states, reaching a national rate of 550 per 100,000, or one of every 182 Americans (Pew Charitable Trusts, 2007). Each year inmates across the United States face the personal and social challenges associated with transition back

to life and work outside of a correctional facility (Harrison & Beck, 2005; Shivy et al., 2007).

The United States Department of Education (2009) stated the following:

These alarmingly high recidivism rates, and the associated rising budgetary and safety costs, have caught the attention of policymakers. National public policy organizations, such as the Council of State Governments and the National Governors Association, have launched initiatives to help states develop, coordinate, and promote state and local strategies for addressing the challenges of reentry to society. The federal government, as part of the president's Prisoner Reentry Initiative, has provided more than \$100 million to communities to develop programming and training strategies to improve employment and other post-release outcomes of ex-offenders. The president's Prisoner Reentry Initiative was reauthorized and its programs expanded by the *Second Chance Act of 2007*. Inmate access to postsecondary education opportunities also was recently increased by the *Higher Education Opportunity Act of 2008*. Through these and other initiatives, a growing number of states are working diligently to identify effective methods, including correctional education, to better prepare inmates for rejoining society. Correctional education programs are intended to break the cycle of catch-and-release by providing inmates with more opportunities to develop the skills required to succeed in their workplaces and communities. These programs range from adult basic education and secondary instruction that enable high school dropouts to earn: (1) high school credentials; (2) career and technical education credentials to equip inmates with the

occupational skills needed to find and maintain employment; and (3) postsecondary education credentials to provide inmates with the necessary skills to keep pace with today's changing labor market. Other programs are designed to provide special instruction for inmates with disabilities and limited English proficiency. (p. 1)

The Effects of Prison Education on Recidivism

Low educational attainment is a major barrier to employment for many released inmates. Education gives individuals basic skills to enter the labor market. It also develops self-efficacy (Marano, 2003). These effects make education a fundamental tool for reducing recidivism (McKean & Ransford, 2004). Sum et al. (2009) stated that given the severe labor market difficulties faced by many young male dropouts, ex-offenders with limited formal schooling and academic proficiencies run the highest risk of becoming recidivists and impose large incarceration, probation, and parole costs on society. Participation in postsecondary programs in a correctional education setting is low, despite evidence of positive outcomes and national emphasis on postsecondary education to meet labor market demands (Meyer et al., 2010).

Meyer et al. (2010) suggested that research related to the implementation of correctional education programs has focused on adult basic and secondary education programs while less is known about implementation of postsecondary programs. Meyer et al. (2010) reported on the first year of a 3-year national study on the implementation and impact of a postsecondary academic program for youth offenders in state prisons. In a randomized design study, 259 students from 38 prisons participated in the study.

Information was collected from student surveys, interviews, and focus groups with students, administrators, and institutional staff. Classroom observations in five states were used to examine various aspects related to the implementation of postsecondary programs in prisons, including program content, instructional delivery, and instructional resources and supports. The student survey results indicated that communication skills, critical thinking skills, and social science topics were emphasized most. Mathematics, science, computer science, art/music, and English were emphasized least. The student survey results indicated that inmates would rather learn on their own. Students were least likely to be taught by a site coordinator or other facility staff member, listen to audio lessons, and to access Internet/Simulated Internet resources.

Streurer and Smith (2003) explored a three-state study that consisted of a release cohort of offenders from Maryland, Minnesota, and Ohio. The study evaluated inmates who participated in correctional education during incarceration and those who did not participate while incarcerated. A total of 3,170 inmates were selected for participation. Correctional education participants had significantly ($p < .01$) lower rates of rearrest (48%), re-conviction (35%), and re-incarceration (21%) than those who did not participate. Overall, there were no significant differences between the participants and non-participants in the types of new offenses committed. Both groups had less serious rearrest offenses compared to their original offense for which they had been in prison.

Mace (1978) examined parole and intake records to follow 320 adult male inmates discharged in 1973 from West Virginia correctional institutions. The subjects were divided into three groups: those who participated in the GED program, those who completed the GED, and those who participated in the college program. Though the

findings were not statistically significant, at the end of 4 years, there were 76 recidivists; 55 were from a group that did not participate in educational programs, and 21 had participated in one or more phases of the educational programs. Only seven of those completing the GED program and only four of the college-level participants were re-incarcerated.

Harer (1995) studied 1,205 prison releases. The data suggested that in general, the more education or schooling individuals had completed when beginning their prison term, the less likely they were to recidivate. The highest recidivism rate was 54.6% for those released with some high school, and the lowest rate was 5.4% for college graduates. People who were employed full time or attended school at least 6 months within 2 years of incarceration had a recidivism rate of 25.6%, compared to 60.2% of those who were not employed or in school. Harer (1995) also found that recidivism rates were inversely related to education program participation while in prison. The more educational programs completed for each 6 months confined, the lower the recidivism rate. For inmates successfully completing one or more courses for each 6 months of their term, 35.5% recidivated, compared to 44.1% of those who did not complete any educational program while in prison.

Fabelo (2002) explored two aspects of the relationship between education and recidivism. The first aspect was to see whether or not the educational level was achieved in prison or not. The second was to explore the relationship between achieving a higher level of education while incarcerated. For the second issue, he statistically controlled the impact of age and offense on recidivism. The study showed that the higher the educational achievement the lower the recidivism rates. Achievement in prison was

associated with an 11% decrease in the 2-year recidivism rate. The results showed that older offenders have lower recidivism rates than younger offenders, and violent offenders have lower recidivism rates than property offenders. The largest decline was found when non-reader property offenders were able to achieve a reader level, regardless of age. The second largest decline occurred when functionally illiterate property offenders achieved literacy, with younger inmates (< 35 years old) experiencing a 17% reduction in their 2-year recidivism rate and older inmates (> 35 years old) experiencing a 14% reduction. The relationship between educational level and achievement was also explored. The results showed that inmates with the highest education had a 31% higher employment rate and earned an average of \$2,442 more than those with a fourth-grade education.

Holloway and Moke (1986) conducted an Ohio study to determine if receiving college training during incarceration enhances offenders' post-release behavior. They employed a randomized study using 300 inmates under the age of 30 years. Of the group, 95 inmates received associate's degrees while in prison. The graduates were compared to two other groups: a group of high school graduates (including GED) who had earned their credentials inside or outside of prison and a group who had no high school or GED credentials. All of the groups studied were released during the same time period. The data suggested that as educational level of the released prisoner increased, recidivism decreased. Specifically, college graduates have a lower recidivism rate than high school graduates and both groups recidivate lower than non-high-school graduates. The study also found that by the end of the first year on parole, more than two-thirds of the college graduates were employed, compared to 60% of the high school graduates and 40% of the high school dropouts.

Chappell (2004) performed a meta-analysis of postsecondary correctional education and recidivism for the 1990–1999 timeframe. Only 15 studies were deemed appropriate, with a total sample size of 7,320 subjects. For the overall meta-analysis, inmates who participated in postsecondary correctional education recidivated 22% and those not participating in postsecondary correctional education had a recidivism rate of 41%.

Beck and Shipley (1989) conducted a study using more than 16,000 prisoners from 11 states. The amount of education was found to be related to recidivism. Prisoners with a Grade 8 level of education or less were rearrested at a rate of 61.9%; high school graduates had a rearrest rate of 57.4%. Individuals with some college had an even lower rearrest rate of 51.9%.

Dugas (1990) conducted an award-winning Louisiana study, evaluating the effects of basic literacy tutoring programs (using inmate tutors) on recidivism. The program studied was developed to have three phases. The first phase prepared inmates to be eligible to take the GED. The second phase involved the inmates being taught life-coping skills so that participants would better function in society upon their release. The third phase's goal was to provide training to inmates who were capable of teaching classes and provide tutoring to other inmates. Of the inmates who received their GEDs while incarcerated (557), fewer than 4% returned to jail compared to a national recidivism rate of 65%.

Porporino and Robinson (1992) conducted a study that included 1,736 federal offenders who were released in 1988 and followed for an average of 1.1 years. Three groups were evaluated—program completers (at an eighth-grade level), those released

before completion, and program dropouts—to measure the effectiveness of an Adult Basic Education (ABE) program on recidivism rates of those who participated. A 12% readmission rate existed between the group who had successfully completed the ABE program and those who did not complete the ABE program. Results exhibited a 30.1% recidivism rate for inmates completing the ABE program, compared to 35.5% for those released before completing and 41.6% for the offenders who had withdrawn.

Jenkins, Steurer, and Pendry (1995) completed a recidivism study by using four subgroups (ABE, GED, vocational education, and postsecondary students). Data were obtained on 120 inmates. Results showed as educational attainment increased, the rate of obtaining employment increased. Inmates who completed a high school equivalency were more likely to earn a higher wage than those who earned a GED or received vocational training. The postsecondary (college) group contained no recidivists. Other groups also experienced reduced recidivism, increased employability, and higher wages.

Williams (1996) investigated an educational program in Genesee County Jail (Michigan) called Project LEAD (Life Enrichment and Development). The program integrated academics, life skills, and vocational instruction, tailoring them to meet the individual needs of participants. The program incorporated classroom computer-assisted and life skills instruction into a pre-vocational curriculum. The 1995 2-year performance report showed that the recidivism rate for the 611 Project LEAD participants from September 1993 through 1995 was 3.5%. The 96.5% non-recidivism rate for participants can be compared with a non-recidivism rate of 67% for circuit court felons in Michigan.

Robinson (2000) investigated Utah's Project Horizon, designed to be a liaison between prison and employment and help prisoners with other individual needs before

they were released. The project has a nine-point plan that includes inmate assessment, multi-agency collaboration, family involvement and support, research and evaluation, post-release tracking and support, job placement, career skills, basic literacy skills, and cognitive problem-solving skills. The non-Horizon participants had a long-term recidivism rate of 82% compared a 65% recidivism rate for those who did participate in the Horizon program.

Unlike other studies with a positive link between education or prison education and reduced recidivism rates, Allen (2006) studied the specific aspects of prison education and vocational education programs on recidivism using individual data from a nationally representative sample of roughly 300,000 prisoners. Ultimately, there was insufficient evidence to conclude that prison education programs have a positive effect on recidivism. Allen (2006) suggested that such programs are either ineffective or their benefits are offset by a reduction in the deterrent value of prison.

Age and Recidivism

Age has been found to be negatively associated to recidivism and to be statistically significant in many studies (Allen, 2006; Avio, 1998; Harer, 1995). Kim, Benson, Rasmussen, and Zuehlke (2001) suggested that the rate of recidivism reduces with age. This finding may occur simply because of maturity, or, in economic terms, risk aversion increases with age, making older individuals more reluctant to “gamble” on criminal opportunities. Allen (2006) suggested alternately that criminal returns may decrease for older prisoners because many crimes are dependent upon physical capabilities that deteriorate with age.

Langan and Levin (2002) reported that the younger the prisoner when released, the higher the rate of recidivism. For example, more than 80% of those under the age of 18 were rearrested, compared to 45.3% of those 45 years or older.

Harer (1995) found that recidivism rates were inversely related to age at release: the older the person, the lower the rate of recidivism. He found that 56.6% of those 25 years of age or younger recidivated compared to 15.3% of those 55 years of age or older.

Allen (2006) suggested that at the time of their release, more than 60% of the prisoners in his sample were between the ages of 18 and 34 years, with the mean being 32 years. Younger prisoners were more likely to recidivate than older ones, and the re-confinement rate for 14- to 17-year-olds (48.6%) was twice as high as the re-confinement rate for prisoners more than 45 years old (24%).

Beck and Shipley (1989) conducted a study using more than 16,000 prisoners from 11 states. Recidivism was inversely related to the age of the prisoner at the time of release. More than 75% of those ages 17 years or younger when released from prison were rearrested, compared to 40.3% of those ages 45 years or older. However, rearrest rates declined by less than 5% among prisoners between the ages of 18 and 34 years.

Race and Recidivism

White males constitute the largest population of prison inmates; however, in terms of the general population, a disproportionate number of inmates are Black (McKean & Ransford, 2004). At year end 2010, Black non-Hispanic males had an imprisonment rate (3,074 per 100,000 United States Black male residents) that was nearly 7 times higher

than White non-Hispanic males (459 per 100,000; United States Department of Justice, 2011).

Blacks also make up a disproportionate percentage of the parole and probation population. In 2000, 64% of all adult probationers and 55% of adult parolees were White; 34% of adult probationers and 44% of all adult parolees were Black; and 16% of adult probationers and 21% of adult parolees were Latino (United States Department of Justice, 2001). Langan and Levin (2002) analyzed data in a 15-state study and found that of the 272,111 released prisoners, 50.4% of the inmates were White, 48.5% were Black, and 1.1% were Other. In terms of ethnicity, the Hispanic population of the released prisoners was 24.5%, and the non-Hispanic population was 75.5%. The researchers found that Black inmates who were released were more likely than Whites to be rearrested—72.9% and 62.7%, respectively. They also reported that Black inmates who were released were more likely to be reconvicted than White inmates who were released—51.1% and 43.3%, respectively. They also found that from an ethnicity perspective, of the prisoners released, non-Hispanics were more likely to be rearrested than Hispanics at 71.4% and 62.7%, respectively. Non-Hispanic inmates who were released were also more likely to be reconvicted than Hispanic inmates who were released at 50.7% and 43.9%, respectively.

Harer (1995) found that recidivism rates were higher among Blacks and Hispanics than among Whites and non-Hispanics. The results of the study suggest that Black releases had a higher rate of recidivism (58.8%) compared to White releases 33.5%; 45.2% of the Hispanics recidivated compared to 40.2% of the non-Hispanics.

Allen (2002) found that 48.7% of the nearly 300,000 released inmates in study were White, and 48% were Black. Very small percentages were Native American, and an even smaller percentage was Asian. The data suggested that Blacks were more likely to recidivate than any other racial groups; Blacks are 9.6% more likely to be rearrested, 5.6% more likely to be reconvicted of a new crime, and 7.6% more likely to return to prison than Whites. Asian inmates were 50% less likely to be reconvicted or re-confined than Whites or Blacks. Hispanics were not included in the race category, because it is regarded as an ethnicity in the data. However, 19.1% of the released inmates classified themselves as Hispanic.

Beck and Shipley (1989) conducted a study using more than 16,000 prisoners from 11 states. They reported that Blacks had slightly higher recidivism rates than Whites. Hispanic origin also had recidivism rates that were about 6 percentage points higher than non-Hispanics.

Gender and Recidivism

Allen (2006) reported that 90.9% of the nearly 300,000 released inmates in the study were male, as only 9.1% of the released inmates were female. Males were more likely to recidivate than females, and their rearrest rate was more than 10% higher than the female rate.

Langan and Levin (2002) reported that 91.3% of the 272,111 prisoners in a 15-state study were men. Incarcerated men, once released, were more likely than women to be rearrested and reconvicted. Langan and Levin (2000) found that 68.4% of the men were rearrested compared to 57.6% of women. They also reported that 47.6% of men

were reconvicted compared to 39.9% of women. Harer (1995), on the other hand, found that recidivism rates were almost the same for males and females: 40.9% of the males recidivated compared to 39.7% of the females.

Marital Status and Recidivism

Visher, Knight, Chalfin, and Roman (2009) studied data collected from over 650 former prisoners returning to three large United States cities between 2002 and 2005. The study analyzed the effect of relationship status within partnered and the unmarried subgroups, and the effect of relationship quality within the same two subgroups. In the partnered subgroup, married and unmarried respondents were compared. In the unmarried subgroup the researchers compared respondents in a relationship to those who were single. In the partnered subgroup analysis, being married or living as married was associated with a 12% decrease in committing a new crime ($p < 0.05$) and a 2% decrease in illegal drug use or intoxication ($p < 0.10$) relative to the unmarried group. Overall, the findings suggest that prison based programs that focus on strengthening the quality of partner relationships, tend to improve recidivism rates and substance use outcomes after release.

Kohl, Hoover, McDonald, and Solomon (2008) reported in a Massachusetts study that 68% of men in the cohort reported themselves as “single.” Recidivists were more likely to report being single (74%) than nonrecidivists (63%), and they were less likely than nonrecidivists to report being married (12% and 15%, respectively). Inmates who reported a marital status of being single had a recidivism rate of 43%, compared to a recidivism rate of 30% for married male inmates.

Scalora and Garbin (2003) reviewed records of 194 convicted child molesters who were released from either a correctional or an inpatient treatment facility in a Midwestern State between 1991 and 1995. Both univariate and multivariate analysis suggested that recidivists were significantly younger ($p=.002$) and were significantly less likely to be married ($p=.002$).

Harer (1995) reported that inmates living with spouses after release had a lower recidivism rate than those with other post-release living arrangements. The data suggested that 20% of those living with spouses recidivated compared to 47.9% with other living arrangements.

Violent vs. Non-Violent Offenders and Recidivism

In a state of Connecticut recidivism study, Cox, Ruffolo, Deconti, and Forbes (2007) found that of the 8,221 inmates released, property offenders and those offenders incarcerated for criminal justice process offenses had the highest reconviction rates at 45%. Violation of probation was next at 42% followed by weapon offenses at 41%, personal offenses at 38%, and drug offenses at 36%. Sex offenses and motor vehicle offenses were the lowest at 31% and 22%, respectively.

The Arizona Department of Corrections (2005) investigated a study aimed at predicting future recidivism and violence. The study examined 54,660 inmates who were released from 1990 to 1999. The results were based on a 3-year follow-up. Recidivism rates for all released offenders were as follows: 42.4% returned to custody for any reason; 24.5% returned to custody with a new crime; 23.2% acquired a new felony conviction resulting in re-confinement; 5.9% acquired a new felony conviction for a violent crime

resulting in re-confinement; 30.9% committed a new felony offense; and 7.9% committed a new violent felony offense.

Allen (2006) noted that the released inmates in study had diverse criminal backgrounds. Of the inmates included in the sample, 21% were imprisoned for committing violent crimes, such as homicide, rape, robbery, or assault; and 30.8% were imprisoned for property crimes such as burglary, larceny, and fraud. Another 27.5% were imprisoned for drug-related crimes, 20.5% for trafficking, and 6.9% for possession, and 10.5% for public-order offenses, such as weapons, driving under the influence (DUI), or other public-order crimes. Inmates imprisoned for property crimes were generally more likely to recidivate than inmates imprisoned for violent, drug, or public-order offenses. For property offenders, 73.6% of were rearrested within 3 years after being released, as compared to 61.4% of criminals who committed a violent crime, 64.7% of drug offenders, and 62.3% of public-order offenders. Inmates who were convicted of homicide and rape had the lowest recidivism rates of any crime at 39.3% and 42.7%, respectively.

Streurer and Smith (2003) explored a three-state study that consisted of a release cohort of offenders from Maryland, Minnesota, and Ohio. The study evaluated inmates who participated in correctional education during incarceration and those who did not participate while incarcerated. A total of 3,170 inmates were selected for participation. Overall, there were no significant differences between the participants and non-participants in the types of new offenses committed. Both groups had less serious rearrest offenses compared to their original offenses for which they had been in prison.

Langan and Levin (2002) reported that released property offenders had higher recidivism rates than those released for violent, drug, or public-order offenses. They

estimated that 73.8% of the property offenders released in 1994 were rearrested within 3 years, compared to 61.7% of the violent offenders, 66.7% of the drug offenders, and 62.2% of the public-order offenders. Property offenders also had higher rates of reconviction and re-incarceration than other types of offenders. Released prisoners with the highest rearrest rates were those who committed crimes thought of as crimes of money: robbers, 70.2%; burglars, 74.0%; larcenists; 74.6%; motor vehicle thieves, 78.8%; possessors/sellers of stolen property, 77.4%; and possessors/sellers of illegal weapons, 70.2%.

Harer (1995) found that inmates in federal prison for fraud and drug trafficking had the lowest rates of recidivism at 20.8% and 34.2%, respectively. The data suggest those in prison for robbery or other crimes against the person (excluding homicide, manslaughter, and sex offenses) had the highest recidivism rates at 64.0% and 65.0%, respectively.

Beck and Shipley (1989) conducted a study using more than 16,000 prisoners from 11 states. An estimated 68,000 of the released prisoners were rearrested and charged with more than 326,000 new felonies and serious misdemeanors, including approximately 50,000 violent offenses (of which 17,000 were robberies and 23,000 were assaults), more than 141,000 property offenses (of which 36,000 were burglaries), and 46,000 drug offenses.

Incarceration Rates, Recidivism, and Cost

The United States has the largest per capita prison population in the world (Amos, 2008; Pew Center on the States, 2008). Incarceration rates for United States residents escalated 700% between 1970 and 2005 and is projected to continue escalating for years

to come (Pew Charitable Trusts, 2007). Catalano (2004) suggested that 20% of American households are indeed victims and bear most of the cost of crime, but these costs are not (directly) counted in the public's balance sheet (Levin et al., 2007). From the public's perspective, crime has four main costs: criminal justice system costs for policing and for trial and sentencing; incarceration costs; state-funded victim costs (medical care and lost tax revenues); and expenditures of government crime prevention agencies (Levin et al., 2007). Most Americans are unaware that prisons are built at \$100,000 per cell and \$30,000 to \$50,000 in annual cost per inmate is added to the tax burden (Mauer, 1999). Boncar (2003) and Levin et al. (2007) stated that as a result of the rapid growth in the number of individuals incarcerated in the United States, total state spending on corrections topped \$49 billion in 2007, up from \$12 billion in 1987. By 2011, growth was expected to cost states an additional \$25 billion. McKean and Ransford (2004) suggested that large and expanding costs in terms of public safety and tax dollars incurred by repeat offenders is a major concern of public policy.

MacDonald (2003) cited a 15-state Justice Department study, which found that prisoners released in 1994 had been charged by 1997 with the following crimes: 2,900 homicides; 2,400 kidnappings; 2,400 rapes; 3,200 other sexual assaults; 21,200 robberies; 54,600 assaults; 13,900 other violent crimes; and more than 200,000 car thefts, burglaries, and drugs and weapons offenses. McKean and Ransford (2004) continued by stating that many other crimes committed by released inmates are unreported or do not result in an arrest. These crimes cost the taxpayers for additional law enforcement and prisons as well as reduce the amount of monies available for other important services such as education and community development.

Walley (2007) suggested that Mississippi spent over \$292 million on an average 20,600 inmates for its prison system in state fiscal year 2005, ending June 30, 2006. The average daily cost to house a prisoner was about \$33 or about \$12,050 per year for each prisoner. According to the Mississippi State Workforce Investment Board (2007), as of 2007, Mississippi had 22,000 inmates in prison. Each week, 166 were released. More than 60% were released without a job or a skill. The recidivism rate was more than 15% the first year, 8% the second year, and 5% the third year. The prison population was growing at 1,000 per year. Only about 1,000 inmates per year were enrolled in Adult Basic Education Classes, and fewer than that in training.

Brief History of Prison Education

Prison education has deep roots in the American correctional system. Inmate educational programming has been a part of the United States criminal correctional system for more than 200 years (Burton, 2007). The first government-sponsored American prison was established in Philadelphia in 1791, and the first educational program for inmates was added in 1798 (Burton, 2007; Coley & Barton, 2006). Education in prison began with a primary focus on religion and vocational training (Ismailova, 2007). The purpose of education at this time was the development of literacy skills for one purpose: to read the Bible (DiMambro, 2007). Instructors were ministers and seminary students who used a tutorial format with the Bible being the only text available (Gehring & Wright, 2003). Repentance, the goal of solitary confinement found in the Pennsylvania system, further supported this method of instruction (DiMambro, 2007).

By 1930, Congress passed legislation that created the Federal Bureau of Prisons (DiMambro, 2007). This Congressional act that created the Bureau of Prisons clearly stated that the Bureau of Prisons would be responsible for the education of federal prisoners (Burton, 2007; Federal Bureau of Prisons, 2005).

By 1965, however, only 12 postsecondary educational programs existed within correctional facilities in the entire nation due to the lack of funding (Taylor, 1993). Relief came in the form of the 1965 Title IV of the Higher Education Act, providing funding for inmates (later called Pell Grants) who enrolled in post-secondary correctional educational programs (Taylor, 1993). As a result, prison education programs expanded rapidly; 182 programs existed nationwide. In 1982, 90% of states accounted for 350 programs. That year, the Federal Bureau of Prisons established its first mandatory literacy program (Bakhru et al., 2011; DiMambro, 2007; McCollum & Russo, 1992; Taylor, 1993). At that time, the standard required that inmates display at least a sixth-grade reading level, but since 1991 a high school equivalent reading level has been required (McCollum & Russo, 1992).

Gehring (1997) suggested that, in 1982, Virginia Congressman Whitehurst launched a bill to roll back inmate Pell Grants to a \$6 million funding cap. Since that time, until 1994, conservatives advocated bills to curtail Pell Grants for inmate students. Each bill was defeated, but they had a cumulative effect. In 1994, when the new Congress was elected, many predicted the struggle for Pell Grants was winding down. A provision of the 1995 Crime Bill finally prohibited inmates from eligibility.

Prison Industry Legislation

Cabana (1996) suggested that one of the most important events that moved correction education forward was the rise of the labor movement. The industrial programs proved no match for the increasingly political clout wielded by labor unions and private industry. Neither group liked competing with inmate labor for work and business in the private sector. As the labor movement gained momentum, legislation was passed (Hawes-Cooper Act of 1929) that restricted the role of prison industries across the nation. Six years later the Ashurst–Summers Act was passed, which extended the restrictions originally imposed by the Hawes–Cooper Act, prohibiting the interstate shipment of prison-made products to those states that made their importation illegal. Prison officials were left with large numbers of idle inmates, and education became the tool for managing offenders. Education programs provided skilled workers for prison industry and other physical plant maintenance.

Types of Prison Intervention Programs

Streurer (1996) reported that correctional education programs help inmates to break the cycle of poor literacy skills and criminal activity by providing them with the knowledge and skills necessary to succeed both in the workplace and in society. Effective correction education programs help inmates develop problem-solving and decision-making skills that they can use within the prison industry and in employment after their release. McKean and Ransford (2004) agreed that rehabilitation programs in prison and for released inmates provide opportunities for prisoners to change behaviors associated with criminal activity and learn more positive and productive ones.

McKean and Ransford (2004) stated that nearly every prison has GED courses and some prisons also offer vocational courses. The curriculum is well established, and positive results are generally indicated, especially for older inmates. Cox et al. (2007) stated that federal and state inmates may participate in a variety of intervention programs such as literacy, adult continuing education, parenting, health and wellness, vocational programs, and some college. McKean and Ransford (2004) and Cox et al. (2007) both suggested that participation may be limited because of the lack of adequate resources and the fact that participation may be entirely voluntary.

McKean and Ransford (2004) suggested that work programs can be administered while in prison to provide inmates with experience and skills that increase their employability upon release. Proponents of prison labor believe that the effects of imprisonment on labor market outcomes can be tempered by teaching inmates skills while incarcerated through prison work programs (Cox, 2009).

Clear (as cited in Solomon, Waul, Van Ness, & Travis, 2004) stated, "The faith community has a long history of interaction with incarcerated populations. Prison chaplains have long been available to inmates for spiritual guidance. In fact, prison inmates have a constitutional right to religious participation in prison" (p. 162). As long as there have been prisons, religious education and training have been offered to prisoners. Religious programs for inmates are not only among the oldest but also among the most common forms of rehabilitative programs (Johnson, Larson, & Pitts, 1997). Johnson et al. (1997) examined the impact of religious programs on institutional adjustment and recidivism rates in two matched groups of inmates from four adult male

prisons in New York. The results suggested that inmates who were most active in Bible studies were significantly less likely to be rearrested during the follow-up period.

Garzarelli (2011) explored a two-phase study to find the relationship between parenting education and recidivism rates 1 year after release. The sample group consisted of 45 individuals who participated in a parenting program and a control group of 45 individuals who were not exposed to the treatment. A chi-square analysis was used to evaluate the relationship between recidivism and program completion. The second phase, a qualitative survey of the parenting program participants, was used to further explain the quantitative data gathered in phase one. The results indicated that parenting programs had a statistically significant impact on recidivism.

Prison Education and Community Colleges

Americans clearly understand that they need education beyond high school if they are to obtain and succeed in a well-paying job in the global economy of the 21st Century. Nevertheless, the nation loses \$3.7 billion a year because students are not learning what they need to succeed in college. This figure includes \$1.4 billion in remedial education to students who have recently completed high school and \$2.3 billion in earnings that the economy fails to realize because remedial reading students are more likely to drop out of college without a degree (Alliance for Excellent Education, 2006). Across the nation, 42% of community college freshmen and 20% of freshmen in 4-year institutions enroll in at least one remedial course (Amos, 2008; Kane & Rouse, 1999). Community colleges already bear the greatest share of the remediation burden, and trends indicate that their responsibilities in this area are beginning to grow (Amos, 2008; Kane & Rouse, 1999). In

1995, almost all public 2-year colleges provided remedial courses, compared to 81% of public 4-year institutions (Kane & Rouse, 1999; Lewis, Farris, & Green, 1996).

Community colleges are unique in that they are diverse in their educational offerings.

Community colleges have flexible offerings of educational courses—remedial, academic, career and technical, workforce and distance learning—that have flexible hours including

nights, weekends, and distance learning. The United States Department of Education

suggested that because community colleges are committed to open admission, they are natural partners for prisons needing support in providing correctional education. Some

states contract with community colleges to provide postsecondary vocational and

academic programs, including non-credit certificate-bearing courses (United States

Department of Education, 2009). Erisman and Contardo (2005) conducted a 50-state

analysis of postsecondary correctional education policy for the Institute of Higher

Education. They found that 68% of all postsecondary correctional education was

provided by community colleges. The United States Department of Education (2009)

suggested that providing correctional education to inmates gives community colleges the

opportunity to increase their student enrollment and revenue and fulfill their mission to

make education available to all local residents. Consequently, prisons can strengthen and

expand their educational services to prepare inmates to be more successful in their

transition outside prison by working closely with community colleges. Furthermore,

preparing inmates to reenter society saves taxpayer dollars, improves public safety, and

reduces overall recidivism rates (Chappell, 2004). Steinberg and Almeida (2006) offered

an adequate description of how community colleges already play an important role by

effectively serving those without a high school diploma and preparing them for productive career pathways:

Given the realities of today's labor market and its skill requirements ... readiness to succeed in college courses and programs must become the standard for recovery programs, in this environment; the community college is emerging as a critical institution for addressing the dropout crisis effectively. State policy can support this trend and improve the ability of community colleges to serve those without high school diplomas more effectively. The community college can be a key part of a strategy to re-engage youth and connect them to productive pathways to adulthood. The accessibility and the relative affordability of community colleges make them a potentially powerful bridge into the education system or labor market for older adolescents who have dropped out of high school. However, there are significant barriers to expanding the role of many colleges in serving local dropouts and getting them reconnected to learning and to credentials with value in the labor market. (pp. 8–9)

Chapter Summary

The review of literature presented in Chapter II discussed research aimed at characteristics influencing recidivism. The reviewed studies described the importance of education, education and crime, workforce, economic cost of crime, recidivism, factors contributing to recidivism, and prison intervention programs.

The literature reflected the impact education and skills training have on an individual's ability to secure employment and strengthen America's workforce. The literature revealed that a strong relationship exists among education, employment, and crime. Specifically, the studies discussed in the literature review well documented that a high school education is important to many aspects of the United States economy. The graduates themselves, on average, will earn higher wages and enjoy more comfortable and secure lifestyles.

The literature showed that the incarceration rates for United States residents have escalated in the past 40 years and the cost of incarceration is staggering. The United States has the largest per capita prison population in the world. American households are indeed victims and bear most of the cost of crime. From the public's perspective, crime has four main costs: criminal justice system costs for policing and for trial and sentencing; incarceration costs; state-funded victim costs (medical care and lost tax revenues); and expenditures of government crime prevention agencies (Levin et al., 2007).

The literature also discussed recidivism and factors that have been found to contribute to it. A thorough review showed that many factors such as education, age, race, sex, marital status, and type of crime contribute to the recidivism rate of ex-offenders.

The literature also showed different types of intervention and recovery programs offered by prisons. The literature stressed the importance of intervention, recovery, and educational programs offered to inmates housed in correctional institutions and the positive impact these types of programs have on recidivism.

CHAPTER III
METHODOLOGY

Purpose of the Study

The purpose of this study was to determine the effects of participation in intervention, education, and training programs by incarcerated individuals on subsequent recidivism. Both the prison population that completed a correctional intervention/educational program and the prison population that did not complete or participate in a correctional intervention/education program were examined. Through these examinations and an understanding of correctional education and measures of correctional program effectiveness, conclusions may be drawn regarding the role that these programs play in reducing recidivism among ex-offenders rehabilitated within MDOC.

Research Design

This is a descriptive, quantitative research study that used a quasi-experimental design. Descriptive research is quantitative research that involves making careful descriptions of educational phenomena (Gall, Gall, & Borg, 2007). In a descriptive study, no attempt is made to change behavior or conditions. A descriptive study establishes only associations between variables. The researcher measures things as they are. Usually only

one measurement is taken (Hopkins, 2000). In quantitative research, the aim is to determine the relationship between one thing (an independent variable) and another (a dependent or outcome variable) in a population. Quantitative research is all about quantifying relationships between variables (Hopkins, 2000). Quasi-experimental designs are used for research studies in which research participants are not assigned to the experimental or control groups (Gall et al., 2007). A quasi-experimental study might compare outcomes for individuals receiving program activities with outcomes for a similar group of individuals not receiving program activities. Quasi-experimental studies can inform discussions of cause and effect, but unlike true experiments, they cannot definitively establish this link. One potential risk is selecting a comparison population that is not really similar to the population being served (Moore, 2008). A quasi-experimental design was the most appropriate design for the current study as there was no randomization performed to any of the groups. The design had two groups that were compared on a dependent variable (recidivism) after one of the groups was exposed to a treatment (participation in intervention/educational program). Specifically, one branch of the design, a self selected group, was the most appropriate label since the experimental group had volunteered for treatment, where as the control group had not opted to participate in an intervention/educational program while incarcerated in the MDOC (Roos, 2005).

Data Collection Procedures

Prior to the beginning of the data collection process that comprised this study, approval was obtained from the dissertation committee at Mississippi State University.

Upon receiving approval from the dissertation committee to proceed with the proposed research project, an application was made to the Mississippi State University Office of Regulatory Compliance, Institutional Review Board (IRB) for approval to conduct the study (Appendix A). Upon approval, a letter was sent (Appendix B) to the Honorable Christopher Epps, MDOC Commissioner, requesting permission to use existing historical data from MDOC. Upon Commissioner Epps' approval (Appendix B), approval was also received from nSPARC to use data from this source (Appendix C).

The data included historical information on Mississippi inmates since 2000. MDOC is one of several partners that participate in a state longitudinal data system. The data are transferred every quarter to nSPARC for management and analysis. Under the auspices of SWIB, the data are used to generate workforce outcomes that measure employment rates, employment retention, and wages for ex-offenders. A key project of the SWIB is to examine how workforce development and program intervention reduce the probability of the ex-offender reentering the correctional system (Appendix D). For this study, the data included records of released offenders from FY2005 to FY2008.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 18.0 software was used to conduct the data analysis. The analytical strategy was to include simple descriptive statistics showing differences in recidivism rates among those who complete education/intervention programs, those who enroll but do not complete education/intervention programs, and those who do not participate in any education/intervention programs. Point biserial correlations were calculated to examine

any relationship(s) between the independent variables being tested. The statistical method of study also used logistic regression to determine the extent to which other factors, such as age and marital status, and other individual characteristics impact the likelihood of reentering the correctional system. Logistic regression can be used to estimate the relationship between an independent variable and a dichotomous dependent variable (Grimm & Yarnold, 2004). Bruinekool (2005) further explained:

Based on Cohen and Cohen's (1983) and Hosmer and Lemeshow's (1989) approaches, logistical regression was chosen as the most appropriate analysis for evaluating the relationship between two or more predictor variables (sex, race, disability group, and severity of disability) and a dichotomous criterion variable (previous closure type). The goal of logistic regression was to be able to use the explanatory (predictor) variables to predict the probability that the response variable would assume a given value. (p. 51–52)

Logistic regression was chosen as the most appropriate method to analyze the data in this study. The logistic regression is the most appropriate tool when the dependent variable in the analysis is a dummy variable

Because of this unique difference, regression coefficients can be expressed as odds ratios that indicate the likelihood of a change in the dependent variable for a unit of change in the value of the independent variable. A coefficient equal to 1.00 indicates no change in the odds of being in one category of the dependent measure versus the other category for unit change on some independent variable. Coefficients greater than 1.00 indicate that the odds of being in one category of the dependent measure versus the other

category for unit of change on some independent variable. Coefficients less than 1.00 indicate that the odds of being in one category of the dependent measure versus the other category for a unit of change on some independent decrease (Cizek & Fitzgerald, 1999; Hosmer & Lemeshow, 1989; Williams, 2002).

Prior to the analysis, the variable *recidivism* was coded as a dichotomous variable (yes = 1, no = 0). The data were cleaned to remove any outliers. The use of an archival dataset may not allow for in-depth interpretation of data that appears to be uncharacteristic in value. In addition, cases that do not have complete data for all of the independent variables were removed (Reynolds, 2007). Logistic regression analysis requires that each case have a valid value for each variable being tested (Grimm & Yarnold, 2004, Reynolds, 2006).

Research Questions

The study examined the extent to which prison intervention/recovery programs influence recidivism rates and job placement rates of ex-offenders. Specifically the study examined two important research questions:

1. Do prison intervention/recovery programs such as skill training programs or rehabilitation programs reduce recidivism rates of participants?
2. Do individual characteristics such as age, race, gender, educational attainment, marital status, offense type, employment, and prior offense influence recidivism rates of ex-offenders released from MDOC between 2005 and 2008?

Variables

The following is a description of dependent and independent variables as used in the research; also included are the description and coding in table form (Table 3.1)

Dependent Variable

The dependent variable in the study is *recidivism*, which was operationally defined as an ex-offender who was rearrested and led to a conviction or re-entering the system within a 3-year period. The dependent variable is *dichotomous*, meaning that there were two values that the variable could have: “1” indicating *recidivism* and “0” indicating *no recidivism*. When a dummy variable is coded on a scale of 0 to 1, the mean value indicates a proportion relative to the value of 1 and therefore can be translated into a percentage. In this particular case, the mean value on the scale of 0 to 1 was 0.346. The descriptive statistic means are multiplied times 100 to get a percentage. (Example: mean is = $.346 \times 100 = 34.6\%$) The descriptive statistics percentages are reported as a percent.

Independent Variables

The independent variables include several individual characteristics. The analysis includes demographic characteristics such as educational/intervention program enrollment, race, age, gender, education level, marital status, type of offense, employment after release, prior offense, and year of release. Program enrollment was coded with four dummy variables to capture groups that participated in educational/vocational training, completed educational/vocational training, participated in intervention/counseling, or completed intervention/counseling programs while incarcerated. The type of program is coded based on more than 300 educational,

vocational, and counseling programs. To complete a program, an inmate must enroll in the program while incarcerated and complete the program within 1 year of release. Each of the four types of program participation was coded as “1,” or otherwise “0.”

Race is used to identify Black and White offenders in the research sample. There are other races found in MDOC, yet that population is minute. For this study, the other races were so small in number that they were included with the White race. Race is measured with two dummy variables, Black or White. Specifically, one dummy variable indicates if a person is Black by coding “1” for Black and “0” otherwise. Another dummy variable codes Whites as “1” and other as “0.” Other races (less than 2%) were combined into White in the analyses.

Gender is used to identify male and female offenders in the sample. Gender is also measured as a dummy variable with females coded as “1” and male as “0.” The age of each offender at the time of release was included in the sample.

Education is measured using three dummy variables to capture three groups: those with less than a high school education, those who obtain a high school diploma, and those who have education above a high school diploma. Each of these variables was coded as “1” and otherwise “0.”

Marital status is measured with three dummy variables. Married individuals were coded as “1”; otherwise “0.” Another dummy variable codes divorced individuals as “1” and otherwise “0.” Similarly, individuals who reported that they were single were coded as “1” and otherwise “0.”

Type of offense is coded with four dummy variables to capture groups that commit property crimes, violent crimes, drug offenses, and finally other or combined

crimes. Each of the four types of the property offenses was coded “1” and otherwise —0”
Year of release was measured by four dummy variables in the analysis. Year 2005 was
coded “1” and otherwise “0.” Similarly, release groups in years 2006, 2007, and 2008,
were coded “1” and otherwise —0.”

Table 3.1 Variable Description

Variable Name	Coding
Dependent Variable	
Recidivism	1=Return to prison within 3 years of Release
Independent Variables	
Program Enrollment	
Education/Vocational Program Completed	1=Completed any education/vocational program
Counseling Program Completed	1=Completed counseling only
Education/Vocational Program Not Completed	1=Enrolled but did not complete any education/vocational program
Counseling Program Not Completed	1=Enrolled but did not complete a counseling program
Race	
Black	1=Black
White	1=White
Gender	
Male	1=Male
Female	1=Female
Education	
Less Than High School	1=Less than High School
High School	1=High School
Above High School	1=Above High School
Age	Age of offender at the time of release
Marital Status	
Married	1=Married
Divorced	1=Divorced
Single	1=Single
Offense Type	
Property	1=Property

Table 3.1 (continued)

Variable Name	Coding
Drug	1=Drug only
Others or Combined	1=Habitual, sex, and multiple offenses
Employment	
Employment After Release	1=Employed one quarter after release
Prior Offense	1=Offender had a prior offense
Year of Release	
FY2005	1=Released in FY2005
FY2006	1=Released in FY2006
FY2007	1=Released in FY2007
FY2008	1=Released in FY2008

Statistical Analysis

This study used logistic regression for the dependent variable (recidivism). The logistic regression is the most appropriate tool when the dependent variable in the analysis is a dummy variable (Agresti, Alan, & Finlay, 1986).

Logistic Regression Model

The general logistic regression model is shown in Equation:

$$\log\left(\frac{p_i}{1-p_i}\right) = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 \dots \beta_k X_k \quad (3.1)$$

where

- p_i = the estimated expected probability of recidivating (1);
- $1 - p_i$ = the estimated expected probability not recidivating (0);
- α_0 = the regression constant - the estimated log odds of the probability of recidivating when all independent variables equal 0; and
- β_k to β_k = the estimated expected change in log-odds of the probability of recidivating for each unit change in the corresponding independent variable.

Here, the log-odds of the probability f recidivating was a linear additive function of the independent variables. However, because log-odds make little intuitive sense, this model can be transformed into the multiplicative probability model shown in Equation 2:

$$\left(\frac{p_i}{1-p_i}\right) = \exp \alpha_0 + \beta_1 X_1 + \beta_2 X_2 \dots \beta_k X_k \quad (3.2)$$

This exponential relationship implies that, for every unit increase in the independent variable, there is a multiplicative effect on the odds of gaining or retaining employment.

Following this model, two logistic regression analyses were conducted. The first analysis

investigated the relationships between each independent variable and recidivating. The second analysis was conducted to determine if the relationship between program participation in prison intervention/education programs holds when controlling for the other variables.

Summary

In sum, the analytical and methodological approach presented in this chapter is innovative for a number of reasons. First, this study is one of the first to use administrative data from the state longitudinal data system. Under the auspices of SWIB, the data are used to generate workforce outcomes that measure employment rates, employment retention, and wages for ex-offenders. MDOC is one of several partners that participate in the state longitudinal data system (SWIB). A key project of SWIB is to examine how workforce development and program intervention reduce the probability of the ex-offender reentering the correctional system. This is also the first study to evaluate data from MDOC researching recidivism and factors that contribute to it. This research analyzed existing data and is the first of its kind in the area of education, skill attainment, counseling, and intervention participation of ex-offenders in Mississippi. This study is an example of how a system like the state longitudinal data system (SWIB) can be used for research purposes.

CHAPTER IV

FINDINGS OF THE STUDY

The purpose of this study was to determine the effects of participation in intervention, education, and training programs by incarcerated individuals on subsequent recidivism. Both the prison population that completed a correctional intervention/educational program and the prison population that did not complete or participate in a correctional intervention/education program were examined. Through these examinations and an understanding of correctional education and measures of correctional program effectiveness, conclusions may be drawn regarding the role that these programs play in reducing recidivism among ex-offenders rehabilitated within MDOC.

This chapter presents the results of the analyses conducted in this study to predict recidivism of ex-offenders. This chapter begins with the descriptive statistics, followed by the multivariate analysis of the data. The research questions in this study are addressed. The dataset consisted of a population sample of 34,004 ($N = 34,004$) inmates housed in MDOC between the years 2005 and 2008.

Descriptive/Demographic Statistics

Table 4.1 reports the descriptive statistics for all the variables used in this study. The statistics suggest that in terms of recidivism, 34.6% of the sample returned to prison

within 3 years of their release. When a dummy variable is coded on a scale of 0 to 1, the mean value indicates a proportion relative to the value of 1 and therefore can be translated into a percentage. In this particular case, the mean value on the scale of 0 to 1 was 0.346. In terms of program enrollment, 69.3% of the population sample did not enroll in any educational/intervention program offered by MDOC. Of the 30.7% who participated in educational/intervention programs, 6.4% enrolled in educational/vocational programs and 24.3% enrolled in counseling programs. Specifically, only 0.4% of education/vocational program participants completed a program and 1.7% of those who enrolled in a counseling program completed the program. (For further clarification, the type of program is coded based on more than 300 educational, vocational, and counseling programs. To complete a program, an inmate must both enroll in the program while incarcerated and complete the program within 1 year of release). The racial breakdown of the sample population accounts for 61% Black and 39% White. Of note, other races made up less than 2% of the population and were included in the White category. In terms of gender, the sample was skewed toward males. The male population was 87.8%, while the female population was only 12.2%. The average age of the population was 34 years old. For educational attainment, only 72.3% of the population reported their education level, with 39.9% reporting less than a high school education, 25.3% reporting having a high school education, and the remaining 7.3% reporting an education level above high school. Only 95.2% of the population sample reported their marital status, with 16.4% reporting being married, 14% reporting being divorced, and 64.6% reporting being single. The types of offenses committed by the population sample included 44.5% committing property offenses, 11% committing

violent crimes, 30.7% committing drug crimes, and 13.8% committing other or combined crimes. Of the population sample, 46.4% reported having been convicted of a prior offense. Upon release, 33.1% of the population sample reported having employment. Of the 34,004 inmates who were released in the 4-year span of this study, 26.4% were released in 2005, 25.3% were released in 2006, 23.6% were released in 2007, and 24.7% were released in 2008.

Table 4.1 Descriptive Statistics (N = 34,004)

Variable Names		Mean	S.D.	Code	Code
Dependent Variable					
Recidivism		0.346	0.476	0	1
Program Enrollment					
Education/Vocational Program Completed		0.004	0.060	0	1
Counseling Program Completed		0.017	0.130	0	1
Education/Vocational Program Not Completed		0.060	0.237	0	1
Counseling Program Not Completed		0.226	0.418	0	1
Race					
Black		0.610	0.488	0	1
White		0.390	0.488	0	1
Gender					
Male		0.878	0.328	0	1
Female		0.122	0.328	0	1
Education					
Less Than High School		0.399	0.490	0	1
High School		0.253	0.435	0	1
Above High School		0.073	0.260	0	1
Age		34.230	10.154	--	--
Marital Status					
Married		0.166	0.372	0	1
Divorced		0.140	0.347	0	1
Single		0.646	0.478	0	1
Offense Type					
Property		0.445	0.497	0	1
Violent		0.110	0.313	0	1

Table 4.1 (continued)

Variable Names	Mean	S.D.	Code	Code
Drug	0.307	0.461	0	1
Others or Combined	0.138	0.345	0	1
Employment				
Employment After Release	0.331	0.470	0	1
Prior Offense				
Prior Offense	0.464	0.499	0	1
Year of Release				
FY2005	0.264	0.441	0	1
FY2006	0.253	0.435	0	1
FY2007	0.236	0.424	0	1
FY2008	0.247	0.431	0	1

Explaining the Relationship Between Prison Program Enrollment and Recidivism

The results of this analysis are reported in Table 4.2. Model 1 reveals the relationship between ex-offenders who participated in educational/intervention programs and those who did not participate in any type of program offered. The data suggest that completing an educational/vocational program has a negative impact on recidivism. Specifically, the results indicate at a significant level ($p < 0.001$) that those individuals completing an educational/vocational program are 87% less likely to recidivate than their counterparts who did not enroll in any type of prison educational/intervention program. Model 2 adds the control variables to the equation to determine if there are any other influences such as age, race, educational attainment, and so forth other than completion of an educational/vocational program. The results indicate at a significant level ($p < 0.001$) that an ex-offender completing an educational/vocational program is 85.8% less likely to recidivate. This means that there is very little difference in predicting the odds for an ex-offender recidivating after controlling for other influences. The data also suggest that if an ex-offender enrolls in an educational/vocational program, but does not complete the program, there is a significant ($p < 0.05$) and negative impact on recidivism. Specifically, ex-offenders who enroll in, but do not complete, an educational/vocational program are 9.9% less likely to recidivate than an ex-offender who does not participate in any type of prison education/intervention program. After including the control variables in Model 2, the results remain significant ($p < 0.05$), and there is very little change in the odds ratio in Model 1 (0.901) and Model 2 (0.903), respectively.

Table 4.2 Logistic Regression of the Likelihood of Offender Recidivism

	Odds Ratio	Sig.	Odds Ratio	Sig.
Program Enrollment (Ref. = Not in program before release)				
Education/Vocational Program Completed	0.130	***	0.142	***
Counseling Program Completed	0.160	***	0.168	***
Education/Vocational Program Not Completed	0.901	*	0.903	*
Counseling Program Not Completed	1.106	***	1.169	***
Demographic Characteristics				
Race (1=Black)			1.033	
Gender (1 = Male)			1.346	***
Age			0.961	***
Education (Ref. = Less than High School)				
High School			1.054	
Above High School			0.881	**
Marital Status (Ref. = Married)				
Divorced			1.427	***
Single			1.128	***
Offense Type (Ref. = Property)				
Violent			0.614	***
Drug			0.748	***
Others or Combined			0.862	***
Employment				
Employment After Release			0.607	***
Prior Offense				
Year of Release (Ref. = FY2005)				
			1.510	***

Table 4.2 (continued)

	Odds Ratio	Sig.	Odds Ratio	Sig.
FY2006	1.004		1.062	
FY2007	0.956		1.031	
FY2008	0.958		1.032	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Likewise, the data suggest that completing a counseling program has a negative relationship to recidivism. Specifically, the results indicate at a statistically significant level ($p < 0.001$) that individuals completing a counseling program are 84% less likely to recidivate than their counterparts who did not enroll in any type of prison educational/intervention program. Model 2 adds the control variables to the equation to determine if there are any other influences such as age, race, educational attainment, and so forth other than completion of a counseling program. The results indicate statistically and significantly ($p < 0.001$) that an ex-offender completing an educational/vocational program is 83.2% less likely to recidivate. Here again, there is very little difference in the odds of an ex-offender recidivating after controlling for other influences. However, if an ex-offender enrolls in, but does not complete, a counseling program, the data suggest that there is a highly significant ($p < 0.001$) and positive relationship with an ex-offender recidivating when compared to ex-offenders who did not participate in any prison program. After including the control variables in Model 2, the results remain significant ($p < 0.001$), and there is very little change in the odds ratio found in Model 1 (1.106) and Model 2 (1.169) for ex-offenders not completing a counseling program.

As presented earlier in this chapter, Model 2 adds individual characteristics. These characteristics do not influence the odds of an ex-offender recidivating whether or not they participate in educational/intervention programs. The model also indicates, though not significantly, that there is a relationship between race and recidivism. Blacks are more likely (1.054) to recidivate than Whites. The data also suggest that there is a positive and statistically significant ($p < 0.001$) relationship between gender and recidivism. Specifically, males are more likely (1.054) to recidivate than females. The

data also suggest that age has a negative relationship to recidivism. The coefficient indicates that the likelihood of an ex-offender recidivating decreases 3.9%, with every year increase in age. In terms of academic attainment, though not significant, those ex-offenders who have a high school education are more likely to recidivate (1.054) than those achieving less than a high school education. In contrast, ex-offenders achieving an educational level above high school are less likely to recidivate than those ex-offenders with an educational level below high school. Specifically, ex-offenders who have an educational level above high school are almost 12% ($p < 0.001$) less likely to recidivate than ex-offenders with less than a high school education. Similarly, marital status has a positive and significant relationship to recidivism. Ex-offenders who are divorced are more likely to recidivate, 1.427 ($p < 0.001$) and 1.128 ($p < 0.001$), respectively, than ex-offenders who are married. The type of crime or offense committed by an ex-offender is highly related to recidivism. Ex-offenders who commit property crimes are more likely to recidivate than those who commit violent crimes, drug crimes, or other or combined crimes. Specifically, ex-offenders who commit violent crimes are 38.6%, and significantly ($p < 0.001$), less likely to recidivate than those who commit property offenses. Similarly, ex-offenders who committed drug crimes are 25.2%, and significantly ($p < 0.001$), less likely to recidivate than those who commit property offenses. Ex-offenders who commit other crimes or have combined crimes are 13.8% and significantly ($p < 0.001$) less likely to recidivate than those who commit property offenses. In addition to type of crime committed, if an ex-offender has committed a prior offense, he or she is statistically and significantly (1.510, $p < 0.001$), respectively, more likely to recidivate than an ex-offender who has committed no prior offense. The data

also suggest that if an ex-offender obtains employment after release, he or she is (39.3%, $p < 0.001$) less likely to recidivate.

This study examined the extent to which participation in prison intervention/recovery programs and/or individual characteristics influence recidivism rates of ex-offenders. Specifically, the study examined two important research questions:

1. Do prison intervention/recovery programs such as skill training programs or rehabilitation programs reduce recidivism rates of participants?
2. Do individual characteristics such as age, race, gender, educational attainment, marital status offense type, employment, and prior offense influence recidivism rates of ex-offenders released from the Mississippi Department of Corrections between 2005 and 2008?

Finding I

Prison intervention/recovery programs such as skill training programs or rehabilitation programs do significantly reduce recidivism rates of participants.

Finding II

Individual characteristics such as age, race, gender, educational attainment, marital status offense type, employment, and prior offense do influence recidivism rates of ex-offenders released from MDOC between 2005 and 2008.

Summary

This chapter presented the results of the analyses conducted in this study to predict recidivism of ex-offenders. This chapter began with the descriptive statistics, followed by the multivariate analysis of the data. The dataset consisted of a population sample of 34,004 ($N = 34,004$) inmates housed in MDOC between the years 2005 and 2008. The descriptive data revealed that the released inmate population had a higher percentage of Blacks than Whites. Blacks were more likely to recidivate than Whites but not at a significant level. There were also a higher percentage of males than females in the population sample. Males were also more likely to recidivate than females. The average age of a released ex-offender in the sample was 34.2 years old. Age had a negative impact on recidivism. The odds of an ex-offender recidivating, decreases with every year increase in age. The data also revealed that there was a higher percentage of property offenses committed by ex-offenders in the sample population than other offenses. Only 30% of the ex-offenders in the population sample participated in any type of intervention/educational program offered by MDOC. Ex-offenders that completes education/vocational program were 87% less likely to recidivate than their counterparts that did not participate in any type of educational/intervention program. The employment rate after release of the population sample was 33.1%. Ex-offenders who were able to secure employment upon release were less likely to recidivate. The overall recidivism rate for the 4-year release period was 34.6%.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is a summation of the research study. The discussion begins with a summary of findings of the study and conclusions drawn from the findings. The chapter also includes limitations, implications for practice, and recommendations for further research.

The purpose of this study was to determine the effects of participation in intervention, education, and training programs by incarcerated individuals on subsequent recidivism. Both the prison population that completed a correctional intervention/educational program and the prison population that did not complete or participate in a correctional intervention/education program were examined. Through these examinations and an understanding of correctional education and measures of correctional program effectiveness, conclusions may be drawn regarding the role that these programs play in reducing recidivism among ex-offenders rehabilitated within MDOC.

Summary of Findings

The findings in this study suggest that ex-offenders who completed an education/vocational program, participated in an education/vocational program but did

not complete, or completed a counseling program were 87% ($p < 0.001$), 84% ($p < 0.001$), and 9.9% ($p < 0.005$), respectively, less likely to recidivate than those ex-offenders who did not participate in any type of education or intervention program. These results are similar to those found by Mace (1978), that ex-offenders who participated in educational programs were less likely to recidivate. Harer (1995) also found that for inmates who successfully completed one or more courses for each 6 months of their terms, 35.5% recidivated, compared to 44.1% of those who did not complete any education program while in prison. Fabelo (2002) also found that the higher the educational achievement, the lower the recidivism rate. Specifically, the study showed an 11% decrease in the 2-year recidivism rate. Of the 16 studies cited in the literature review, this study found similar results of 15 studies that suggest that ex-offender participation in educational or intervention programs while in prison does reduce the probability or likelihood that an ex-offender will recidivate.

Ex-offenders in this study who participated in counseling programs but did not complete the program were more likely to recidivate than ex-offenders who did not participate in any education/intervention program. This can possibly be explained by assuming that the participants in this group did not resolve an addiction or emotional issue with which they were dealing.

Race and Recidivism

There were no significant findings in this study that suggest that race is a predictor of recidivism. Race alone is not an ethical or suggested method of predicting the likelihood of whether an ex-offender will recidivate or not. However, what the

findings of this study do suggest is that Blacks did tend to recidivate more so than Whites. The data also suggest that there is a disproportionate number of Blacks in confinement. Fifty-nine percent (59%) of Mississippi's general population is White, and 37% of the population is Black (United States Census Bureau, 2010). This study found the racial breakdown for ex-offenders released by MDOC between 2005 and 2008 was 61% Black and 39% White. These findings suggest that there is a disproportionate number of Blacks incarcerated when compared to the demographic population of Mississippi. Similarly, McKean and Ransford (2004) suggested in their study that White males constituted the largest population of prison inmates; however, in terms of the general population, a disproportionate number of inmates are Black. The authors went on to suggest that the most prevalent demographic group is young Black males. Other studies (Allen, 2002; Harer, 1995; Langan & Levin, 2002) found that recidivism rates were higher among Blacks and Hispanics than Whites and non-Hispanics.

Gender and Recidivism

The data also suggest that there is a positive and statistically significant ($p < 0.001$) relationship between gender and recidivism. Specifically, males are more likely (1.054) to recidivate than females. Of the 34,004 ex-offenders examined in this study, 88% were male and 12% were female. These findings are similar to those reported by Langan and Levin (2002) that 91.3% of the 272,111 prisoners in the 15-state study were men. Incarcerated men, once released, were more likely than women to be rearrested and reconvicted. They found that 68.4% of the men were rearrested compared to 57.6% of women.

Allen (2006) also found similar results; of the release population, 89.9% were male, and only 9.1% of the released inmates were female. It was found that males were more likely to recidivate than females, and their rearrest rate exceeds the female rate by more than 10%. Harer (1995), on the other hand, found that recidivism rates were almost the same for males and females: 40.9% of males recidivated compared to 39.7% of the females.

Age and Recidivism

The results of this study suggest that for every year's increase in age, there is a statistical (0.5%) and significant ($p < 0.001$) probability that an ex-offender is less likely to recidivate. Other studies have also found age to be negatively associated to recidivism (Allen, 2006; Avio, 1998; Harer, 1995; Kim et al., 2001; Langan & Levin, 2002). Kim et al. (2001) and Allen (2006) suggested that this may occur because maturity, or, in economic terms, risk aversion, increases with age, making older individuals more reluctant to "gamble" on criminal opportunities. Alternately, criminal returns may decrease for older prisoners because many crimes are dependent upon physical capabilities that deteriorate with age.

Langan and Levin (2002) reported that the younger the prisoner when released, the higher rate of recidivism. For example, more than 80% of those under the age of 18 years were rearrested, compared to 45.3% of those 45 years or older.

Education and Recidivism

The results of this study suggest that ex-offenders with a high school education are more likely to recidivate than ex-offenders with less than a high school education.

Though this finding is not significant in this study and disagrees with the findings of several studies that are reported in the literature review, which found that ex-offenders who do not have a high school diploma are more likely to recidivate than ex-offenders who do have a high school diploma or college degree, perhaps this could simply be explained as a reporting issue. The data suggest that only 72.3% of the population in the study reported education level upon release, with 39.9% reporting less than a high school education, 25.3% reporting having a high school education, and the remaining 7.3% reporting an education level above high school. The 27.7% of participants not reporting educational attainment could be the reason for the results. Another factor that could attribute to the results is many ex-offenders may be reporting that they are high school graduates at the time of their incarceration and indeed they are actually at a lower education level. The Mississippi Department of Education (as cited in Mississippi Community and Junior College System, 2008) reported as of April 27, 2007, that 6% of the high school students were in special education programs and would receive an occupational diploma instead of a high school diploma. Many of the participants may not realize the difference between diplomas and report inaccurate information.

However, the results of this study did find that ex-offenders who reported having an education above a high school diploma were 12% less likely to recidivate than those who reported having less than a high school education. The results were significant ($p < 0.001$). These results are similar to those reported by Harer (1995). Harer suggested that the more education or schooling the person had completed when beginning his or her prison term, the less likely he or she was to recidivate. The highest recidivism rate was

54.6% for those released with some high school, and the lowest recidivism rate was 5.4% for college graduates.

Marital Status and Recidivism

The results of this study are clear that there is a direct link between marital status and recidivism. Specifically, ex-offenders who reported being divorced or single were statistically significant ($p < 0.001$) more likely to recidivate. These findings are similar to those reported by Harer (1995). Harer reported that inmates living with a spouse after release had a lower recidivism rate than those with other post-release living arrangements; 20% of those living with a spouse recidivated, compared to 47.9% with other living arrangements.

Violent vs. Non-Violent Offenders and Recidivism

The results of this study suggest that ex-offenders committing property offenses had the highest rate of recidivism. The type of crime or offense committed by an ex-offender is highly related to recidivism. Ex-offenders who commit property crimes are more likely to recidivate than those who commit violent crimes, drug crimes, or other or combined crimes. Specifically, ex-offenders who commit violent crimes are 38.6% and significantly ($p < 0.001$) less likely to recidivate than those who commit property offenses. Similarly, ex-offenders who committed drug crimes are 25.2% and significantly ($p < 0.001$) less likely to recidivate than those who commit property offenses. Ex-offenders who commit other crimes or have combined crimes are 13.8% and significantly ($p < 0.001$) less likely to recidivate than those who commit property offenses. These results are similar to those found by Langan and Levin (2002), who reported that released

property offenders had higher recidivism rates than those released for violent, drug, or public-order offenses. They estimated that 73.8% of the property offenders released in 1994 were rearrested within 3 years, compared to 61.7% of the violent offenders, 62.2% of the public-order offenders, and 66.7% of the drug offenders.

Harer (1995) also found similar results in his study. Property offenders had higher rates of reconviction and re-incarceration than other types of offenders. Released prisoners with the highest rearrests rates were those thought of as “crimes of money”: robbers, 70.2%; burglars, 74%; larcenists, 74.6%; motor vehicle thieves, 78.8%; possessors/sellers of stolen property, 77.4%; and possessors/sellers of illegal weapons, 70.2%.

In a recidivism study in Connecticut, Cox et al. (2007) found similar results as the current study. Of the 8,221 inmates released, property offenders and those offenders incarcerated for criminal justice process offenses had the highest reconviction rates (45%). Violation of probation was next at 42%, followed by weapon offenses (41%), personal offenses (38%), and drug offenses (36%). Sex offenses and motor vehicle offenses were the lowest at 31% and 22%, respectively.

Allen (2006) also found that inmates imprisoned for property crimes were generally more likely to recidivate than inmates released for violent, drug, or public-order offenses. Within 3 years after being released, 73.6% of property offenders were rearrested, as compared to 61.4% of criminals who committed a violent crime, 64.7% of drug offenders, and 62.3% of public-order offenders.

Employment After Release

The results of this study suggest that if an ex-offender secures employment after being released from prison, he or she is 40% ($p < 0.001$) less likely to recidivate than those ex-offenders who do not secure employment. These results could be attributed to the fact if the ex-offender has a job and a source of income, there may not be a need to turn to crime as a source of income. Harer (1995) found similar results in that persons who were employed full time or attended school at least 6 months within 2 years of incarceration had a recidivism rate of 25.6%, compared to 60.2% of those who were not engaged in employment or education. Likewise, Anderson, Anderson, and Schumacker (1988) studied 760 inmates who were divided into four groups: no training at all, vocational training, academic training, and vocational and academic training. The data suggested that the group of inmates with vocational and vocational and academic training had higher rates of employment and fewer arrests than other groups. The highest level of recidivism belonged to the group that had no education or training.

Conclusions

This study examined the extent to which participation in prison intervention/recovery programs and/or individual characteristics influence recidivism rates of ex-offenders. Specifically, the study examined two important research questions:

1. Do prison intervention/recovery programs such as skill training programs or rehabilitation programs reduce recidivism rates of participants?

2. Do individual characteristics such as age, race, gender, educational attainment, marital status offense type, employment, and prior offense influence recidivism rates of ex-offenders released from MDOC between 2005 and 2008?

The results of the study do imply that prison intervention/recovery programs such as skill training programs or rehabilitation programs *do* significantly reduce recidivism rates of participants and those individual characteristics such as age, race, gender, educational attainment, marital status offense type, employment, and prior offense *do* influence recidivism rates of ex-offenders released from MDOC between 2005 and 2008.

Implication for Practice

Myriad discussions among the academic, correctional, and political realms focus on how to conquer shortcomings in education and job skills in Mississippi. This study introduces an innovative approach in the use of administrative data. Typically, data are collected for accountability and reporting requirements. This study shows that such data can be used for research purposes and can be analyzed to provide decision makers with valuable knowledge and information. The information provided from the results of this study should be beneficial to policymakers, who need unbiased, science-based information that is statistically sound to make conscientious fiscal decisions for the state, as well as correctional professionals who must develop and implement programs to enable this population to become productive, self-sufficient members of the workforce and society. Policy makers and correctional professionals should work with community colleges to remove the barriers that prevent prisoners from enrolling in educational/intervention programs at these institutions. Community colleges already bear

the greatest share of the remediation burden, and trends indicate that their responsibilities in this area are beginning to grow (Amos, 2008; Kane & Rouse, 1999). Community colleges are unique in that they are diverse in their educational offerings. Community colleges have flexible offerings of educational courses—remedial, academic, career and technical programs and workforce programs that have flexible hours including nights, weekends, and distance learning. The United States Department of Education suggested that because community colleges are committed to open admission, they are natural partners for prisons needing support in providing correctional education. Some states contract with community colleges to provide postsecondary vocational and academic programs, including non-credit certificate-bearing courses to prisoners (United States Department of Education, 2009). Prisons can strengthen and expand their educational services to prepare inmates to be more successful in their transition outside prison by working closely with community colleges. Furthermore, preparing inmates to reenter society saves taxpayer dollars, improves public safety, and reduces overall recidivism rates (Chappell, 2004).

Limitations

Despite the scientific merit and significant contributions of this study, due to the nature of the study, limitations do exist. The research analyzed data from MDOC, which included historical information on Mississippi inmates since 2000. MDOC is one of several partners that participate in the state longitudinal data system. The data are transferred every quarter to nSPARC for management and analysis. For this study, the data included records of released offenders from FY2005 to FY2008. Therefore, the

results of this study cannot be generalized to other states. In addition, most of the data are provided by the inmates themselves at the time of incarceration. Therefore, the validity of information such as education level, employment data, marital status, and so forth heavily relies on the inmates reporting accurate information.

From a population standpoint, Mississippi is somewhat limited in terms of racial diversity. States with more diverse populations may experience a situation in which race plays a more significant role in the existence and basis of recidivism (Bruinekool, 2005). Employment opportunities in Mississippi may differ significantly from other states. The unemployment rate in any given state may have an impact on the recidivism rate. Therefore, states with an unemployment rate that differs from Mississippi may produce statistically different results for recidivism.

Recommendations for Future Research

This research study is the first of its kind to use longitudinal data collected by the Mississippi SWIB for the sole purpose of measuring program outcomes for MDOC. This study is the foundation for many other viable studies to help aid in planning and implementation for future programs needed by MDOC to help rehabilitate offenders. As more data are collected and available for analysis, perhaps the current study could be expounded upon to include a workforce component that would measure employment rates, job retention rates, wage earnings, and other economic factors of ex-offenders. Studies exploring the relationship of ex-offenders with disabilities and recidivism could be pertinent as well. Also, other research in this area should explore that the role community colleges play in providing education and training to prisoners.

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APPENDIX A
IRB APPROVAL LETTER

May 16, 2011

Mr. Chad Stocks

RE: IRB Study #11-137: A Study on the Effectiveness of Recovery Programs in Reducing Recidivism Rates

Dear Mr. Stocks:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 5/16/2011 in accordance with 45 CFR 46.101(b)(4). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at <http://www.orc.msstate.edu/human/aahrpp.php>.

A signed formal approval letter will only be mailed at your request. Please refer to your IRB number (#11-137) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at nmorse@research.msstate.edu or call 662-325-3994.

Sincerely,

Nicole Morse
Assistant Compliance Administrator

cc: James E. Davis (Advisor)

APPENDIX B
MISSISSIPPI DEPARTMENT OF CORRECTIONS
APPROVAL LETTER

Approved!



From: Stocks, Chad L. [mailto:CLStocks@hindsc.edu]
Sent: Friday, April 09, 2010 10:20 AM
To: Epps, Christopher
Subject: Use of Data

April 9, 2010

Commissioner Epps,

My name is Chad Stocks. I am the Assistant Dean, for Career and Technical Education at Hinds Community College in Raymond MS. I am also a graduate student at Mississippi State University working on my dissertation for my Ph. D. I am working with Dr. Mimmo Parisi on some data for my dissertation. The topic is about recovering High School Dropouts and getting them some form of GED or skill and/or other credential and how important this is to making them productive taxpaying citizens of our community and state. Dr. Parisi and I were in a conversation yesterday and told me that you and he had some good data that could possibly suggest that various types of recovery programs (drug and alcohol, GED, Construction Skills etc.) could keep released inmates from returning to the prison system and help them gain and retain employment.

I am asking for your permission, to use your data and work with Dr. Parisi to analyze this data for use in my dissertation. I thank you in advance for your consideration of this request. If you have any questions or need more information please do not hesitate to call me at 601 857 3311.

Sincerely,

Chad Stocks

APPENDIX C

nSPARC APPROVAL LETTER



NATIONAL STRATEGIC PLANNING
& ANALYSIS RESEARCH CENTER



May 13, 2011

Ms. Nicole Morse
Assistant Compliance Administrator
Office of Regulatory Compliance and Safety
Mailstop 9563

Subject: Chad Stocks' Dissertation Research

Dear Ms. Morse:

Please accept this letter as permission for Mr. Chad Stocks to use nSPARC data as part of his dissertation work toward the completion of his Ph.D. in Community College Leadership.

Mr. Stocks' research involves the study of economic opportunities for ex-offenders in the Mississippi workforce. Data on ex-offenders residing with nSPARC will be critical to his research. Please note that Mr. Stocks will not have access to any identifiable data nor will the data include information on currently incarcerated individuals. In fact, all analyses will be conducted by nSPARC staff and only statistical output will be made available to Mr. Stocks. At no time will Mr. Stocks have access to identifiable data.

Please do not hesitate to contact me if I can provide any additional information regarding data for Mr. Stocks' dissertation research.

Sincerely,

Domenico "Mimmo" Parisi
Director

PO BOX 6027 • MISSISSIPPI STATE, MS 39762 • PHONE (662) 325-9242 • FAX (662) 325-1310 • WWW.NSPARC.MSSTATE.EDU

APPENDIX D
STRATEGIC PLAN FOR WORKFORCE DEVELOPMENT
IN MISSISSIPPI FOR 2007–2009

**STRATEGIC PLAN FOR
WORKFORCE DEVELOPMENT
IN MISSISSIPPI FOR
2007-2009**

EXECUTIVE SUMMARY

**MISSISSIPPI STATE WORKFORCE
INVESTMENT BOARD**

As Adopted June 20, 2007

EXECUTIVE SUMMARY

Mississippi's economy, under Governor Barbour's leadership, is robust and growing. Over 38,000 new jobs have been added in the last three years, and per capita income has grown more than 15%. Many new companies have decided to locate in Mississippi, producing thousands of new high-paying jobs.

The State Workforce Investment Board has been working to consolidate and strengthen the workforce development system. A new accountability system, the Integrated Workforce Performance System, has been developed and implemented to collect and analyze the results of training and placement efforts across all public agencies. The workforce system has been consolidated to be more efficient and customer friendly. The community and junior college system, which provides most of the public training, can now deliver more demand-driven training as the result of a new funding mechanism. Enabled in 2005 by the Governor and the State Legislature, the fund now has thus far provided \$20 million annually for workforce training.

The State Workforce Investment Board now must build on its accomplishments, and the primary challenge will be the shortage of qualified workers. By 2014, Mississippi needs 200,000 more workers, but population projections indicate a growth of only 100,000 more workers. This worker shortage must be addressed first by looking inside Mississippi. Mississippi must reclaim more of its non-participants in the labor force. High school dropout rates must be reduced and adults without a high school education must be given a chance to earn a GED. Mississippi must assist ex-offenders, welfare recipients, and those with disabilities in special training and placement so that they can become productive workers. The strategic plan calls for closer alignment of all the public workforce programs to produce more effective results through common goals. In addition, Mississippi must look outside its borders and attract workers from other states to come live and work in Mississippi.

The State Workforce Investment Board also will emphasize workforce system services to businesses, especially small businesses and entrepreneurs. In addition, the Board will emphasize training for the manufacturing sector, and remain committed to rebuilding the Gulf Coast.

LIST OF RECOMMENDATIONS

- I. The Mississippi Integrated Workforce Performance System project should be expanded to all fifteen Community/Junior Colleges and other agency data collections should be completed this year. The Board will assist in identifying resources to support the data gathering, compilation, and analysis.*

- II. *An Interagency Task Force on Workforce Development composed of Program Directors below the level of the Executive Director should be created. This Task Force will be charged to develop a set of recommendations on closer program coordination across agencies so that training and placement assistance will be seamlessly provided to job seekers. This Interagency Task Force will share information on all funding sources and program mission and structure and report back to the State Workforce Investment Board Executive Committee in October, 2007. The Task Force Chair will not come from any of the agencies, but will come from the State Workforce Investment Board or the Governor's Office.*
- III. *Endorse the Community College Career Readiness Credentialing Approach and support some amount of additional initial funding from the Workforce Investment Act so the plan can be implemented at the WIN Job Centers as well as the Community College Workforce Development Centers. Explore the use of incentives or stipends to increase training participation.*
- IV. *Endorse the Department of Education's redesign plan and support its implementation of Career Pathways.*
- V. *Partner with the Community Colleges and other organizations to explore a proposal for "recovering" high school dropouts.*
- VI. *Support the MDES in designing new early intervention strategies to shorten the average duration of receiving benefits, and to reduce down from 30% those who exhaust their benefits.*
- VII. *Explore methods to determine the reasons for non-labor force participation, and what factors would draw these individuals back into the workforce.*
- VIII. *The State should implement an aggressive training, education, and placement program to reduce prison recidivism rates and increase workforce participation.*
- IX. *Commend the Department of Rehabilitation Services for its example of workforce partnering, and urge the Interagency Task Force to use it as one model for better integration of services.*
- X. *Request that Momentum Mississippi expand its goal of creating a positive business image to include creating an image for Mississippi that is inviting to workers who will relocate for good jobs and quality of life.*
- XII. *Task the Business Outreach Committee with developing a model for Business Outreach Services. Further tasks the Committee to study the current system for entrepreneurial support and the provision of services to small businesses, and develop recommendations to the Executive Board by*

October. Some of these recommendations may involve legislative changes.

- XII. Form a task force headed by the CEO of the Mississippi Manufacturers Association (MMA) to support implementation of the recommendations contained in the recent MMA study of the Workforce Training Needs of the Manufacturing Sector in Mississippi, to make further recommendations, and to recommend strategies for establishing Advanced Manufacturing Centers of Excellence in the Community/Junior College System.*