# Correctional Education and Recidivism: Toward a Tool for Reduction

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# Correctional Education and Recidivism: Toward a Tool for Reduction

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#### **Abstract**

Vast arrays of research have evaluated recidivism through a limited scope, analyzing various factors independently. This study endeavors to execute a systematic review of factors attributed to recidivism in order to focus the research trajectory toward the most promising recidivism reduction tool. Various risk factors of recidivism have been identified; however few can be utilized as a tool in reduction. Of those tools, research indicates that correctional education programming appears to offer the greatest reduction outcome. The importance of this research is established by reorganizing the major research findings on correctional education programs from 1995 to 2010 in order to show the impact of education on recidivism. To accomplish this goal, a typology of the research is created to delineate the factor that is most promising in reducing recidivism, correctional education. Specifically, an analysis of 10 empirical studies is performed in order to understand the impact of correctional education programming on recidivism. Findings reveal conclusiveness about educational programming as a reduction tool for recidivism.

#### Introduction

The incarceration rates in America far exceed all other industrialized nations, with over two million inmates currently incarcerated (Brazell, Crayton, Mukamal, Solomon, &

Lindahl, 2009; Vacca, 2004). Approximately, 95% of those inmates will be released yearly (Brazell et al., 2009). Overcrowding has become a major issue for correctional facilities and has created major problems for the criminal justice system and our nation (Petersilia, 2003). Further, research states that one in every one hundred persons in the United States is currently incarcerated (Brazell et al., 2009). Major studies (Batiuk, Lahm, McKeever, Wilcox, & Wilcox, 2005; Vacca, 2004; Gordon & Weldon, 2003; Steurer, Smith, & Tracy, 2001; Hull, Forrester, Brown, Jobe, & McCullen, 2000; Stevens & Ward, 1997) have been conducted that work toward relieving the problem of overcrowding by looking at effective correctional programming, which reduces the likeliness for inmates to return to prison. These studies have all unanimously concluded that correctional education, particularly college or academic, has a negative correlation with recidivism (Steurer, Linton, Nally, & Lockwood, 2010; Brazell et al., 2009; Batiuk et al., 2005; Vacca, 2004; Gordon & Weldon, 2003; Steurer et al., 2001; Hull et al., 2000; Stevens & Ward, 1997).

Incarceration in America is a growing problem. As can be seen in Figure 1, prison populations, namely state and federal institutions, increased 55% from 1995 to 2010. It is this growing population of inmates that creates the need for programming that closes the revolving door of correctional institutions in America. The most recent recidivism study conducted in 1994 by the Department of Justice reports a national recidivism rate of 68% (Langan & Levin, 2002). This rate applies to prior offenders who were rearrested at three years post-release (Langan & Levin, 2002).

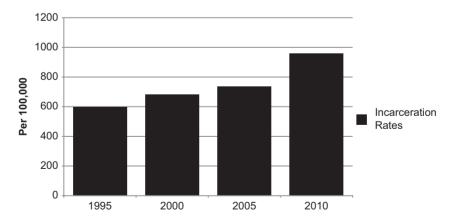


Figure 1. Incarceration Rates in America, 1995-2010

Source: U.S. Department of Justice, Bureau of Justice Statistics, Prisoner Series Online (http://bjs.ojp.usdoj.gov/index.cfm?ty=pbse&sid=40).

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A general consensus among scholars suggests that correctional education plays a major role in the rehabilitation of inmates (Steurer et al., 2001; Hull et al., 2000; Batiuk et al., 2005; Vacca, 2004). There are various kinds of correctional programs aimed at providing rehabilitation to inmates (Steurer et al., 2010). Many researchers have discovered that correctional education often involves various programs, meaning that the variations of educational level among inmates has developed a need for many programs that serve the prospective inmates (Steurer et al., 2010). According to Steurer et al. (2010), education has three goals—to provide security, safety, and rehabilitation—and these goals are "the entire range of correctional services." It is this similarity of goals that offers the most hope for the rehabilitation of inmates. The goals comparison, as stated by Steurer et al. (2010), work toward keeping society protected from offenders, insuring the security of institutions and aimed at creating functioning and productive members of society. Utilizing education as a means of accomplishing the goals of corrections allows for its use as a tool.

Petersilia (2003) states that societal forces, such as lawmakers and politicians, often combat the goals of correctional education by arguing that inmates should not be given access to education when society is obligated to pay for their education. This is often referred to as the "principle of least eligibility," which suggests ambivalence among the public in providing inmates with specific programs that the general public is not granted freely (Petersilia, 2003). It is this societal and political influence that greatly hinders correctional education as a rehabilitative tool for inmates (Petersilia, 2003). However, as policy makers call for less funding for rehabilitative programs it encourages increased spending for more prisons and longer prison sentences (Steurer et al., 2010; Brazell et al., 2009, Batiuk et al., 2005; Petersilia, 2003; Steurer et al., 2001). Consequently, recidivism rates are climbing and more money is used to re-incarcerate these inmates (Steurer et al., 2010; Brazell et al., 2009, Batiuk et al., 2005; Petersilia, 2003; Steurer et al., 2001). According to Batiuk et al. (2005), in 1997 Ohio spent over \$35 million on recidivating inmates at \$47 per prisoner per day. Conversely, it has been reported that for every \$962 spent on academic education for inmates the criminal justice system will save \$5,306 per inmate (Brazell et al., 2009).

Previous research has shown that correctional education reduces recidivism, claiming gainful employment as the direct link to recidivism reduction (Steurer et al., 2010; Brazell et al., 2009; Batiuk et al., 2005; Gordon & Weldon, 2003; Steurer et al., 2001; Hull et al., 2000). However, various risk factors exist that impact recidivism. This study aims to explore the relationship of correctional

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education and recidivism. To accomplish this, an examination of the risk factors of recidivism was performed, looking at education as a tool in reducing recidivism. Thus, a review of empirical studies analyzing correctional education programs and recidivism was conducted from 1995 to 2010. Using the information gained in this study as means, I propose some future goals of corrections.

#### Recidivism

Before delving into correctional education as a tool for recidivism reduction, it is important to discuss recidivism. Recidivism research is often a difficult topic to address. Researchers often debate the measures of recidivism in order to identify the indicators that offer the best predictors. A general consensus of literature identifies three measures of recidivism: re-arrest, re-conviction, and re-incarceration (Jancic, 1998). All the indicators alone offer several deleterious effects. Re-arrest, for example, often presumes guilt as well as assumes conviction and incarceration, yet this is not always the situation. According to Langan and Levin (2002), re-arrest is an incomplete measure for criminal activity because it assumes re-conviction. In a similar manner, re-conviction makes the supposition of re-incarceration, while other alternatives exist, such as probation. In a review of the literature, Chappell (2004) concluded that researchers typically define recidivism by three measures: re-arrest, reconviction, and re-incarceration; however, researchers operationalize recidivism as re-incarceration. Researchers often argue that re-incarceration offers the most effective indicator of recidivism. However, problematic still, literature suggests that re-incarceration alone fails to account for occurrences that do not result in incarceration, meaning a return to crime has still occurred vet not so much as to warrant incarceration. For example, occurrences that lead to re-conviction but result in probation help explain the difficulties of using re-incarceration as a measure. Independently, these three indicators create an ineffective measure of recidivism. Nevertheless, when all indicators are integrated, a more efficient measure of recidivism is created.

In addition to understanding how researchers define recidivism, it is also important to address the risk factors that influence recidivism or an offender's propensity to recidivate. Research (Steurer et al., 2010; Brazell et al., 2009; Batiuk et al., 2005; Gordon & Weldon, 2003; Steurer et al., 2001; Hull et al., 2000) suggests many risk factors influence recidivism, specifically race, age, gender, marital status, socioeconomic status (SES), educational attainment, and employment status. It is imperative that each risk factor be addressed independently, in order to comprehend its significance to recidivism research.

# Age

Current literature has shown that the age of offenders has an impact on recidivism (Steurer et al., 2010; Brazell et al., 2009; Batiuk et al., 2005; Gordon & Weldon, 2003; Steurer et al., 2001; Hull et al., 2000). Often, age is identified as a risk factor of recidivism. The most recent statistics available on recidivism rates collected by the Bureau of Justice Statistics from prisoners released in 1994 with a three-year follow-up was utilized in this study in order to show the risk factors of recidivism. According to Figure 2, as an offender ages the likelihood for that offender to return to crime at six months post-release reduces from 38.6% to 25.9% among the 21–30 years of age group. As well, this reduction in recidivism can be noted for all indicators utilizing follow-up periods ranging from six months to three years.

Understanding influences of age on recidivism is useful for predicting who recidivates. However, age is only a risk factor for recidivism and is not useful as a tool for reduction in that age cannot be manipulated in the same manner that employment status and educational levels can be. Rather, the understanding of this risk factor is vital to the prevention and reduction of recidivism. Other influences exist, such as maturation, which works at explaining the effect of age on recidivism. With increases in age, people often develop more stability, which

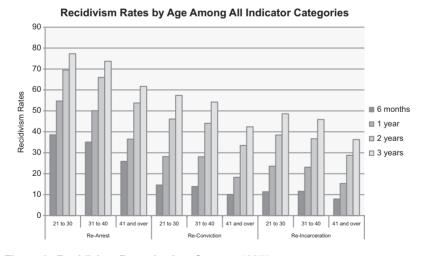


Figure 2. Recidivism Rates by Age Groups, 1997\*

Source: U.S. Department of Justice, Bureau of Justice Statistics, Recidivism Analysis Tool Online (http://bjs.ojp.usdoj.gov/index.cfm?ty=datool&surl=/recidivism/index.cfm#).

<sup>\*</sup>Inmates released in 1994, with a 3-year follow-up period.

leads to a reduction in criminal activity or desistance. This maturation provides some explanation of the influence of age on recidivism.

#### Race

Race is also a risk factor of recidivism, and is useful in the prediction of recidivism. According to Coley and Barton (2006), among all racial categories, blacks have the highest rates of incarceration. In addition, the highest rates of recidivism among all racial categories can be seen among blacks. According to Figure 3, among all indicator categories, blacks have the highest rates of rearrest, re-conviction, and re-incarceration. Utilizing the Recidivism Analysis Tool from the Bureau of Justice Statistics, we see that among the re-arrest category, blacks have a recidivism rate of 77.6% at three years post-release compared to 69.3% recidivism among whites. Research shows other structural and cultural factors exist that have created the increase in incarceration and recidivism among blacks. Specifically, policies that target specific races, such as the war on crime policies, reflect higher incarceration rates among black men than any other racial category (Pettit & Western, 2004). Understanding the role of race in the prediction of recidivism is necessary for defining a reduction tool.

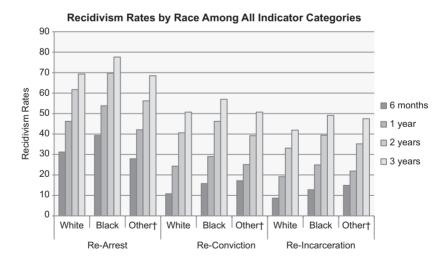


Figure 3. Recidivism Rates by Racial Groups, 1997\*

Source: U.S. Department of Justice, Bureau of Justice Statistics, Recidivism Analysis Tool Online (http://bjs.ojp.usdoj.gov/index.cfm?ty=datool&surl=/recidivism/index.cfm#).

<sup>\*</sup>Inmates released in 1994, with a 3-year follow-up period.

<sup>†</sup>Other refers to offenders who identified themselves as non-white and non-black.

#### Gender

Gender is another important factor in recidivism prediction. A risk factor as well, literature suggests that women have the lowest recidivism rates. Further, males have higher rates of incarceration and higher rates of recidivism (Coley & Barton, 2006). According to the Bureau of Justice Statistics, it is shown that males have re-arrest rates at 50.6% versus female re-arrest rates at 42.9% at one year post-release. A comprehensive overview of the risk factors associated with recidivism is beneficial to determining what factors influence recidivism and how research should advance toward reduction tools. Importance is gained through an analytical understanding of recidivism risk factors in order to develop a high recidivism risk group for prediction purposes.

#### **Marital Status**

Research shows offenders who are married often have lower rates of recidivism than single offenders. In fact, literature states marital status as reducing crime and recidivism due to familial ties or bonds (Burton, Cullen, Evans, & Dunaway, 1994). According to Burton et al. (1994), these social bonds are a factor in reducing recidivism. Marital status as a factor of recidivism enables

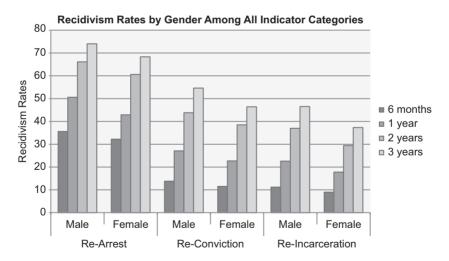


Figure 4. Recidivism Rates by Gender Groups, 1997\*

 $Source: U.S. \ Department of Justice, Bureau of Justice Statistics, Recidivism Analysis Tool Online (http://bjs.ojp.usdoj.gov/index.cfm?ty=datool&surl=/recidivism/index.cfm#).$ 

<sup>\*</sup>Inmates released in 1994, with a 3-year follow-up period.

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researchers to understand that through increased stability crime can be reduced. Comprehending the impact of these risk factors on recidivism is necessary for effective programming that reduces recidivism.

## Employment/Educational Attainment

Unemployment is often a common factor that impedes the offender, often contributing to the offender's choice of criminality. As well, offenders who struggle with finding gainful employment are more prone to criminal activity than those who find higher paying jobs (Chamberlain, 2011). Additionally, one factor that contributes to offenders' difficulty in finding gainful employment is level of education, specifically low levels (Chamberlain, 2011). According to Harlow (2003), of the national population of inmates, 41% have not completed a general equivalency diploma (GED) or high school, compared to 18% of the general population. Along with lower levels of education comes reduced employability of offenders (Chamberlain, 2011). Employment as a risk factor begins the shift toward the establishment of a tool for recidivism reduction. Further, decreased opportunity for employment creates a need for offenders to resort to illegitimate behavior to generate income (Burton et al., 1994). At this point the risk factor of educational level arises as a factor of recidivism. Educational attainment of offenders is often thought of as a risk factor of recidivism among researchers. However, the distinction between educational attainment and previously discussed risk factors (age, gender, race, marital status, and employment) emerges in our ability to utilize education as a tool for reduction. Structurally, these risk factors (age, gender, race, and marital status) for recidivism allow some avenue for change. However, to accomplish this goal, policies would have to be created that reduce the likelihood of these factors influencing recidivism. More directly, education as a tool for recidivism reduction offers a more viable path through policy changes.

#### Education as a Reduction Tool

Education as a recidivism reduction tool can provide many benefits for the United States as a whole (Erisman & Contardo, 2005). Initially, the offender gains the most benefit from obtaining a correctional education (Erisman & Contardo, 2005). However, over time the benefit is then shared with the family, the correctional institution, and society (Erisman & Contardo, 2005). This benefit refers to a reduction of costs associated with incarcerating offenders, a reduction of strain on the offenders and their families, and an economic boost for society (Erisman & Contardo, 2005). The opportunity for education of inmates offers a

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link between employment and reduced recidivism (Gaes, 2008). Thus, an in-depth look at correctional education and recidivism is necessary.

Many states in the United States offer correctional education programs to inmates during incarceration (Stevens & Ward, 1997). However, a study conducted by Erisman and Contardo (2005) revealed that about 5% of inmates enroll in correctional education programming. Correctional education has a variety of goals that are aimed at rehabilitating inmates (Gordon & Weldon, 2003). These goals often include controlling inmate behavior, supporting the needs of the correctional institution, and providing inmates with basic skills and an opportunity to change (Gordon & Weldon, 2003). However, researchers have unanimously decided that the ultimate goal of correctional education is to reduce recidivism (Steurer et al., 2010; Brazell et al., 2009; Batiuk et al., 2005; Gordon & Weldon, 2003; Petersilia, 2003; Steurer et al., 2001; Hull et al., 2000; Stevens & Ward, 1997).

According to the literature, correctional education significantly reduces inmates' likelihood of returning to prison (recidivism). Specifically, the level of education obtained while incarcerated and whether the inmate participated or completed education programming determines the rate of recidivism (Harlow, 2003; Wilson, Gallagher, & MacKenzie, 2000). In a meta-analysis of 15 studies, researchers examined the correlation between participation and completion of post-secondary correctional education and recidivism (Chappell, 2004). It was shown that those inmates who completed a post-secondary correctional education program had lower rates of recidivism than did participants only (Chappell, 2004). The relationship between participation and completion of correctional education programs is important to the role of education as a tool for reduction of recidivism. Specifically, the importance of degree completion while incarcerated further aids in the reduction of recidivism rather than participation only.

#### Methods

This assessment of the association between correctional education programming and recidivism is based on empirical research studies published from 1995 to 2010. This date range was determined due to the lack of analysis of the research studies conducted for this time period. Further, the researcher utilized the publication date of all studies and realizes that most, if not all, of the research conducted was done on samples from the 1990s. In order to identify research articles, library database searches were completed using date limiting (1995–2010) and keyword search limiting terms. Multiple

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combinations of search terms (recidivism, recidiv\* and education, correctional education programming, prison education and recidiv\*)¹ focusing on the concept of the study were appropriated. Databases (ProQuest, JSTOR, and EBSCOhost) that are relevant to the discipline of sociology and criminology/criminal justice were utilized over the course of a three-year period (2010–2013) in order to identify new and relevant articles. Across all searches completed, hundreds of results were returned. Utilizing systematic content analysis, the researcher was able to narrow the sample size to 10 articles. Specifically, criteria were used to aid in this process. Two major criterions were used to eliminate research studies.

The first criterion for use was whether the article contained within it a primary empirical study looking at correctional education programming. For the purpose of this study, correctional education programming refers to a program that leads toward a diploma, certificate, or degree of any sort. This can include a high school diploma, a GED, vocational and technical training certificates, and college degrees. In many studies, elimination was problematic despite the fact that many empirical studies looking at correctional education programming have been conducted. The difficulty in elimination of studies that appeared suitable arose from the vast research on correctional education program evaluation and effectiveness.

The second criterion was whether or not the study used recidivism as an outcome measure. Specifically, the studies included must have measured individual recidivism of offenders while controlling for their participation in a correctional education program. Recidivism as an outcome measure can often be difficult to measure. Many studies exist that look at recidivism; however, only studies relating to correctional education programming that uses recidivism as an outcome measure were included in the study to assess the influence of correctional education programs on recidivism. Researchers often define recidivism as a "return to." Customarily, recidivism is measured in three ways: re-arrest, re-conviction, and re-incarceration (Jancic, 1998; Chappell, 2004). Recently, researchers have included two other indicators of recidivism: self-reported offenses and violations of community supervision (Cecil, Drapkin, MacKenzie, & Hickman, 2000). For the purpose of this study, studies including any measure of recidivism were included.

<sup>&</sup>lt;sup>1</sup>\*Refers to truncation used by the database in order to search for all possible references to recidivism, such as recidivism or recidivate.

#### Limitations

Some limitations exist in this study of correctional education and recidivism research that are beyond the control of the researcher. First, inclusion of only 10 studies available and appropriate for use in this review offered some dissatisfaction to the researcher. Initially, searches performed offered some satisfaction to the researcher due to vast amounts of results returned on correctional education and recidivism research. However, once the two criterions were applied, the sample size was reduced drastically. Second, another limitation that is beyond the control of the researcher is the lack of empirical research conducted from 2005 to 2010. Originally, the researcher allowed a date range of 1995 to 2010; however, no empirical studies fitting the criteria were discovered since 2005. A vast array of knowledge can be derived from correctional education research, often program evaluation or effectiveness is measured. As stated earlier, only studies that use recidivism as an outcome measure were included in the sample.

Third, recidivism is difficult to measure and contains within it many problem areas. Criminological researchers debate the issue of recidivism measures frequently. Outcome measures utilized as indicators of recidivism are re-arrest, re-conviction, and re-incarceration. However, Jancic (1998) argues deleterious effects of the three indicators, as stated previously. Re-arrest is problematic because it presumes re-conviction and re-incarceration. The critical point arises due to the indicative nature of guilt offered by using re-arrest as an indicator. Further, re-conviction also proves presumptuous of re-incarceration. Finally, re-incarceration can be problematic to measure across jurisdictional lines, such as state to state and state to federal.

## **Analysis**

The sample collected includes 10 studies that examine correctional education programs and recidivism. The purpose of this research is to create a comprehensive, although not exhaustive, review of the empirical studies conducted from 1995 to 2010 on correctional education and their findings on recidivism. What follows is a detailed account of the study carried out, looking at specific measures, sample size, levels of education, and the recidivism rates reported. Figure 5 shows the results of this study.

Steurer et al. (2001) conducted one of the largest studies ever that looked at correctional education and recidivism. Steurer et al. (2001) used a sample of 3,170 inmates currently incarcerated and ready to be released between 1997 and 1998 with a follow-up period of three years in order to effectively measure

Figure 5. Studies Examining the Effect of Correctional Education Programs on Recidivism, 1995–2010	Dependent Variable Sample Independent Variable (Measure of Ariable (Measure of Ariable)  Ldy Size (n =) (Program Level) Recidivism) Controls Findings	nd 60 Associate degree, Re-incarceration Gender 95% of associate degree completers did not recidivate at 3 years post-release 100% of bachelor degree completers did not recidivate at 3 years post-release 3 years post-release	al. 318 College, Employment Re-incarceration Nonparticipation Post-release employment gained through correctional education reduces recidivism by 76%	3,000 Academic programs, Re-incarceration Gender, 62% of academic participants did not recidivate Vocational programs, Nonparticipation 80% of academic completers did not recidivate Employment 63% of vocational participants did not recidivate 79% of vocational completers did not recidivate 79% of vocational completers did not recidivate 79% of participants were employed upon release 78% of completers were employed upon release	High school diploma, Re-incarceration Nonparticipation 81% of high school completers had not recidivated at 5 years post-release Associate degree at 5 years post-release at 5
Studies E				3,000	147
Figure 5.	Author/Study	Stevens and Ward (1997)	Batiuk et al. (1997)	Hull et al. (2000)	Kelso, Jr. (2000)

Figure 5 (	(Continued)	3)			
			Dependent Variable		
	Sample	Independent Variable	(Measure of		
Author/Study	Size $(n=)$	(Program Level)	Recidivism)	Controls	Findings
Kelso, Jr.	152	Vocational certificates,	Re-incarceration Nonparticipation	Nonparticipation	91% of vocational certificate completers had not recidivated
(2000)		Associate degrees			at 5 years post-release 85% of associate degree completers had not recidivated at
					5 years post-release
Burke and	64	College	Re-incarceration	Re-incarceration Age, Educational	66% of college participants at 3 years post-release had not
Vivian (2001)				level, Sentence	recidivated
				length, Race,	22% of college participants at 5 years post-release had not
				Nonparticipation	recidivated
Steurer et al.	3,170	Education participation,	Re-arrest, Re-	Nonparticipation,	52% of participants had not been re-arrested at 3 years
(2001)		Education completion,	conviction, Re-	Age, Gender, Race,	post-release
		Employment	incarceration	Living environment,	73% of participants had not been re-convicted at 3 years
				Marital status, Prior	post-release
				criminal history,	79% of participants had not been re-incarcerated at 3 years
				Type of offender	post-release
Brewster and	5,746	GED	Re-incarceration	Age, Race, Gender,	GED participation reduces recidivism
Sharp (2002)				Marital status	

8.75% of vocational training completers recidivated 6.71% of GED completers and participated in vocational training recidivated 26% of nonparticipants in correctional education recidivated	68% of GED completers did not recidivate 67% of those who entered with a degree did not recidivate 63% of those who were admitted and released with no degree did not recidivate	62% of college participants had not recidivated Highest among high school participants Some reduction among GED and vocational training participants  Drug offenders have lowest recidivism rates among other types of offenders
Nonparticipation	Nonparticipation	Re-incarceration Nonparticipation, Age, Race, Type of offender
Re-incarceration	Re-incarceration Nonparticipation	Re-incarceration
GED, Vocational training Re-incarceration Nonparticipation	GED, Admitted with a degree, Admitted and released with no degree	High-school, GED, Vocational training, College
350	16,617	972
Gordon and Weldon (2003)	Nuttall (2003)	Batiuk et al. (2005)

whether or not correctional education programs had any effect on recidivism. Like other researchers looking at correctional education and recidivism, Steurer et al. (2001) used a quasi-experimental design that focused on release cohorts. The researchers conducted a randomized sampling technique to extract inmates' names that would be released during the study time frame from three states: Minnesota, Ohio, and Maryland (Steurer et al., 2001). This process was performed until each state had a sample size of 1,200 (n = 1,200) inmates. Oversampling was used in order to control for early releases. Of the sample drawn, 1,797 inmates had not participated in any correctional education, while 1,373 inmates had participated in some form of correctional education. While the study has some issues with generalizability, no other study has gathered the amount of information Steurer et al. (2001) have, with over 500 variables that look at various factors that influence recidivism, as well as control for reliability and comparability.

The Three State Recidivism Study claims that the greatest hindrance to the validity of the study is similar to all other studies that have been conducted on inmates and correctional education programs, and that factor is the selfselection bias (Steurer et al., 2010; Brazell et al., 2009; Batiuk et al., 2005; Vacca, 2004; Gordon & Weldon, 2003; Steurer et al., 2001; Hull et al., 2000). Due to the nature of correctional programs, in that they are offered and not mandated, researchers are unable to conduct studies using truly random sampling techniques due to the voluntary participation or nonparticipation of inmates in these programs (Steurer et al., 2010; Batiuk et al, 2005; Steurer et al., 2001; Hull et al., 2000). The outcome measures that the researchers used were re-arrest, re-conviction, and re-incarceration (recidivism) (Steurer et al., 2001). This working definition of recidivism as an outcome measure contains limitations in that rearrest does not mean guilt and therefore could be misconstrued as recidivism if measured (Jancic, 1998). As well, using re-conviction as a measure of recidivism provides limitations in the research that imply re-incarceration, in which many cases do not result in incarceration (Jancic, 1998). Researchers often find it difficult to conclude on a working definition of recidivism. Esperian (2010) argues that recidivism is "a return to criminal behavior." However, the problem with this definition is that it fails to take into account the "dark figure of crime" and only allows for the measure of crime that is actually reported (Jancic, 2004).

From the research conducted by Steurer et al. (2001), it can be concluded that those inmates who participated in some form of correctional education had higher rates of reduced recidivism than inmates who did not participate. For Maryland and Ohio, the greatest reduction in recidivism can be seen among

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the re-incarceration rates from 37% to 31% (see Figure 5) and from 31% to 24% (Steurer et al., 2001), while Minnesota saw the greatest reduction in negative post-release behaviors (recidivism) among re-arrest with rates dropping from 54% to 42% (Steurer et al., 2001). The researchers provide no differentiation between programs completed by inmates and the respective recidivism (Steurer et al., 2001). Therefore, it is hard to determine what educational level has the greatest impact on post-release behaviors. However, some interesting findings reported by Steurer et al. (2001) were that among the two groups (participants and nonparticipants), nonparticipants had completed higher levels of education prior to incarceration. This leaves questions as to what relationship exists between pre-incarceration education and during incarceration education on recidivism.

Other studies that sought to discover what relationship exists between type of correctional education and recidivism have been conducted. More specifically, Hull et al. (2000) looked at inmates who participated in academic and vocational education and those who did not (Hull et al., 2000). The researchers in this study also examined the effects of participation and completion of these academic and vocational programs on recidivism (Hull et al., 2000). This differentiation between participation and completion is an important finding in looking at correctional education and recidivism. In order to better understand the effects that correctional education has on recidivism it is imperative that we differentiate between participation and completion of correctional education. Hull et al. (2000) examined 3,000 inmates in the Virginia Department of Corrections between 1979 and 1994. Of those inmates, 1,307 inmates neither participated in nor completed any type of correctional education (Hull et al., 2000). Hull et al. (2000) also examined the relationship between academic or vocational participators and academic or vocational completers, looking specifically at the influence on recidivism. Interestingly, the results show that completers, of either academic or vocational programs have lower rates of recidivism than those inmates who only participated in these programs but did not complete (Hull et al., 2000). In an examination of recidivism rates it becomes evident that inmates who complete either academic or vocational correctional education have lower recidivism rates than inmates who participate but do not complete academic or vocational correctional education (Hull et al., 2000). More specifically, inmates who participated in academic correctional education had recidivism rates of 38.2% versus 19.1% for inmates who completed academic correctional education programs (see Figure 5) (Hull et al., 2000). Among all groups examined by Hull et al. (2000), academic completers had the lowest

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rates of recidivism. This distinction between completers and participators offers further understanding of the relationship between correctional education and recidivism.

In a study conducted by Gordon and Weldon (2003), researchers focused on exploring the relationship between type of program and recidivism. Gordon and Weldon (2003) examined 193 inmates in the Huttonsville Correctional Facility in West Virginia from 1999 to 2000. The researchers divided inmates into three groups: inmates who did not participate in any correctional education programs (control group), inmates who completed a general education equivalency (GED) and then participated in a vocational education program, and inmates who completed a vocational program (Gordon & Weldon, 2003). The rate of recidivism among the control group was 26% (Gordon & Weldon, 2003). However, those inmates who completed vocational education programs had a recidivism rate of 8.75% (see Figure 5) (Gordon & Weldon, 2003). This finding shows that there is a relationship between correctional education and recidivism and that relationship shows inmates who receive correctional education will have lower rates of recidivism than inmates who receive no correctional education (Gordon & Weldon, 2003). This finding is consistent with the study conducted by Steurer et al. (2001), as well as other studies (Steurer et al., 2010; Batiuk et al., 2005; Hull et al., 2000; Stevens & Ward, 1997).

It is also imperative to understand the type of programs that have a greater effect on recidivism. Batiuk et al. (2005) explored that relationship (type of program and recidivism). In the study, Batiuk et al. (2005) selected 972 (n = 972) inmates from the Ohio Department of Corrections and Rehabilitation (ODCR) using a disproportionate stratified sampling technique in order to improve the representativeness of the sample to the population. The researchers divided the inmates into subgroups before using random sampling to extract the sample groups from each (Batiuk et al., 2005). The subgroups were those inmates who had participated in high school diploma/GED programs, vocational programs, and college education programs; as well as a control group of inmates who had not completed any correctional education programs (Batiuk et al., 2005). Once the inmates had been divided into their respective subgroups, random sampling procedures were used to create the sample (Batiuk et al., 2005). From the study (Batiuk et al., 2005), it was determined that inmates who participate in college education programs while incarcerated have lower rates of recidivism and the time to recidivism is longer than any other correctional education program rates, which can been seen in Figure 5. However, one limitation of the study, like previous studies, is the self-selection bias (Batiuk et al., 2005). Studies (Steurer

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et al., 2001; Hull et al., 2000; Batiuk et al., 2005; Vacca, 2004) suggest inmates who choose to participate in college correctional education have more self-discipline and motivation than inmates who choose not to participate in correctional education programming. This factor has not been examined in the research and could influence the relationship between correctional education and recidivism (Batiuk et al., 2005).

In a previous study conducted a decade earlier, the same findings were revealed (Stevens & Ward, 1997). Stevens and Ward (1997) argue that inmates who receive a college degree while incarcerated will have lower recidivism rates, as seen in Figure 5. In a study conducted by Stevens and Ward (1997) of 60 inmates released in 1991 who had completed either a two-year or fouryear degree it was revealed that the level of education significantly affects recidivism. In fact, of the inmates who had received a four-year degree during incarceration, none had recidivated during the three-year follow-up period (Stevens & Ward, 1997). Similar findings have been discovered in other studies concluding that inmates who receive a two-year or four-year degree during incarceration have lower rates of recidivism (Stevens & Ward, 1997). Stevens and Ward (1997) also conducted a survey of states in order to examine the research on correctional education and recidivism. Only eight states returned the surveys sent by Stevens and Ward (1997), yet the findings all reflect that correctional education reduces recidivism. Those states were Texas, New York, Illinois, Alabama, Florida, Maryland, and Oklahoma (Stevens & Ward, 1997).

The survey from Alabama revealed that of the inmates who completed a post-secondary education degree while incarcerated, recidivism rates were at 1% compared to the overall rate of 35% (Stevens & Ward, 1997). Stevens and Ward (1997) also determined from the Florida survey that inmates who received some form of correctional education were 19% more likely to find employment when released, arguing that employment reduces recidivism (Stevens & Ward, 1997). The relationship between employment and recidivism is important in understanding what works in reducing recidivism. However, that research is beyond the scope of this article (see Saylor & Gaes 1997; Uggen 2000; Morash & Andersen 1978). Surveys conducted by Stevens and Ward (1997) from New York, Maryland, Texas, Alabama, Illinois, and Oklahoma all revealed that inmates who complete a college degree during incarceration have lower rates of recidivism than all other inmates.

Burke and Vivian (2001) examined inmates at the Hampden County Correctional Center (HCCC) in a comparison study of those who participated in

college education programs and those who did not. Recidivism was measured as re-incarceration, as adapted from the definition set forth by the HCCC. Using a sample size of 64 inmates (n = 64) the researchers gathered information from the jail management system in order to collect specific data on inmates to determine inclusion of inmates in the sample. Inclusion criteria included release dates of January to October 1993, serving a sentence of at least three months, and completion of at least three college credits or no college credits (Burke & Vivian, 2001). From the sample, two groups were created: inmates who had participated in college correctional education (treatment) and inmates who had not participated in college correctional education (control). The sample included 32 inmates in each group. From the study, it was concluded that inmates who participate in college correctional education program have lower recidivism rates than inmates who do not participate in college education programs while incarcerated. Specifically, a 22% reduction, as seen in Figure 5, can be examined among the groups (Burke & Vivian, 2001). As well, it was observed that of those inmates who participate in college education programs, there is a longer length of time to recidivism than those who did not participate, with the average length reported at 4.38 years compared with 3.13 years (Burke & Vivian, 2001). Some limitations of the study are sample size and the limitation of one institution. Generally, researchers claim that sample sizes below 100 are often unreliable.

Brewster and Sharp (2002) addressed the problem of sample size by examining a sample of 11,813. In order to study the effect of obtaining a GED while incarcerated, looking at the impact it has on recidivism, Brewster and Sharp (2002) pooled data from the Oklahoma Department of Corrections. Initially, the sample of offenders released between January 1991 and December 1994 contained 21,268 inmates. Through inclusion criteria the researchers were able to reduce the sample to a group of inmates, looking at the effects of GED on recidivism (n = 5,752). Recidivism data was gathered through January 1997, with a follow-up period of three years. Controlling for age, race, and marital status, the researchers report a reduction in recidivism among inmates who participated in GED programs while incarcerated in the Oklahoma Department of Corrections (Brewster & Sharp, 2002). This finding, as well as others, leads to a more thorough understanding of the impact of education on recidivism.

In a study conducted by Kelso, Jr. (2000), two correctional education centers were examined to determine the effect of educational level on recidivism. The Garrett Heyns Study gathered a sample of 147 inmates who had participated in high school, vocational training, or college programs before release between

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1985 to 1987 (Kelso, Jr., 2000). The researcher reported at one year post-release there was a recidivism rate of 0% among those who had completed a high school diploma. Further, after five years post-release of inmates in the high school completion group, the recidivism rate average was 19.6% (Kelso, Jr., 2000). For those inmates who received a vocational certificate, recidivism rates at five years post-release were reduced to 11.9%. More importantly, college degree recipients were reported to have recidivism rates, as seen in Figure 5, at just 10.8% at five years post-release (Kelso, Jr., 2000). In the second sample, the Twin Rivers Study contained 152 inmates who completed either a vocational certificate or associate degree program. Of those, the researcher reports a recidivism rate of 9% among inmates obtaining an associate's degree while those obtaining a vocational certificate had a recidivism rate of 14% (Kelso, Jr., 2000). Overall, inmates who participated in some form of correctional education programming at five years post-release had a lower recidivism rate compared with the 53.7% recidivism rate of the entire population (Kelso, Jr., 2000). Further, the results offer more evidence of the relationship between correctional education and recidivism. Additionally, the research continues to show reduction of recidivism through education as a tool.

Nuttall, Hollmen, and Staley (2003) performed a study of inmates at the New York State Department of Correctional Services (NYSDOCS) released in 1996 with a three-year follow-up period. The inmates were divided into three groups: inmates who obtained a GED at NYSDOCS, inmates who were admitted and released without a degree, and inmates who entered with a degree, with a final sample size of 16,617. Of the three inmate groups, Figure 5 shows those who earned a GED while in the NYSDOCS had the lowest recidivism group at 31.8% compared with those who did not obtain a degree at 36.6% (Nuttall et al., 2003). Further, those who were admitted with a degree had a recidivism rate of 32%. The results, like previously, provide support for the claims made by all the research examined in this study that as a tool correctional education, specifically college, works at reducing recidivism.

Additionally, Batiuk, Moke, and Rountree (1997) performed a 10-year follow-up study of 318 (n=318) inmates in Ohio. Further, inmates released from 1982 to 1983 and followed through 1993 were included. The researchers measured recidivism as a return to prison and examined college participants and employment outcomes. From the study, the researchers report an overall recidivism rate of 37%. As well, the researchers discuss the effect of education on recidivism indirectly through the obtainment of employment rather than education as the sole factor. This provides support for further research on

employment, education, and recidivism of inmates. Figure 5 shows the results of the study conducted by Batiuk et al. (1997). Overall, Batiuk et al. (1997) claim education is a factor in the reduction of recidivism and increases the offender's employability and likelihood of obtaining gainful employment.

From the extant research, it can be concluded that education works as a reduction tool for recidivism. More importantly, it is gathered that education has an indirect effect on recidivism reduction through increases in the employability of inmates. For a comprehensive overview of the sample (n=10) of empirical research analyzed in this project, refer to Figure 5. From Figure 5, it becomes evident education as a tool for reduction is promising. Further, a discussion claiming the usefulness of education as a tool for reduction follows.

# **Policy Implications**

Throughout the last 30 years, correctional education research has emerged that exhibits evidence of which correctional education reduces recidivism. Examination of a myriad of studies reveals conclusive results: correctional education reduces recidivism (Steurer et al., 2010; Brazell et al., 2009; Batiuk et al., 2005; Vacca, 2004; Gordon & Weldon, 2003; Steurer et al., 2001; Hull et al., 2000; Stevens & Ward, 1997). Further, research that investigates previous studies in order to reexamine the findings reveals identical results (Gaes, 2008; Chappell, 2004; Wilson et al., 2000; Bouffard, MacKenzie, & Hickman, 2000). The research findings from the extant research conclude that all forms of correctional education reduces recidivism; more specifically, college education during incarceration has the greatest impact on recidivism. The issue at hand is concerned with a review of the research on correctional education and the impact on recidivism, particularly the overall findings of empirical research.

Understanding the relationship between correctional programs, specifically education programs, and recidivism is important for learning tools to reduction. The extant research provides insight as to which educational programs aid in reducing recidivism. As well, it also provides a research base for which other studies can be developed to help fill the gaps. This project systematically reviewed the empirical research that examined the correlation between correctional education programs, looking at the factors' influence on recidivism. It was concluded that inmates who obtain a correctional education degree while incarcerated will have lower rates of recidivism. The research that has been conducted brings forth questions as to what else can be done to aid in the reduction of recidivism utilizing education as a tool. The research explains the relationship between correctional

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education and recidivism; specifically, if we educate prisoners, recidivism will be reduced. With this knowledge of education as a tool for recidivism reduction there leaves the question of where we go from here.

It is evident that education is a tool which administrators and educators alike can utilize in the reduction of recidivism. Education as a correctional practice has been around for over 200 years (Crayton & Neusteter, 2008). It is recognized as one of the first programs in the rehabilitation of inmates and continually produces reduction of recidivism through employability of inmates (Crayton & Neusteter, 2008).

The major consensus among the research concludes that correctional education reduces recidivism (Steurer et al., 2001; Hull et al., 2000; Batiuk et al., 2005; Vacca, 2004; Stevens & Ward, 1997). As well, higher levels of education, such as two year and four-year degrees further decrease recidivism of inmates (Batiuk et al., 2005; Hull et al, 2000; Stevens & Ward, 1997). It has been concluded specifically that post-secondary correctional education offers the greatest reduction in recidivism than any other correctional education program (Batiuk et al., 2005; Hull et al., 2000; Stevens & Ward, 1997). However, administrators and policy makers have failed to understand this finding and continue to support the elimination of funding for inmates. This elimination of funding virtually ended correctional college education programs in many states (Batiuk et al., 2005). When policy makers haphazardly enact policies that contradict the findings in research, they are essentially setting offenders up for failure and those affected by these polices (families, institutions, society, etc.). Policy makers need to re-evaluate current policies that have eliminated funding for inmates to receive college education in order to reduce recidivism.

# Where we go from here

This discussion of correctional education's impact on recidivism leads to the question: where do we go from here? The implications of this study reveal the need of funding for correctional education programs for inmates. However, political practices have continually sought to eliminate funding despite these findings. According to Latessa (2004), political change is a difficult topic to address; specifically, the idea of why political will continually seeks to eliminate funding for correctional education. One claim is that politicians seek avenues of little risk taking and with correctional education the risk is high (Latessa, 2004). Research affirms this claim due to the lack of methodologically sound empirical studies on correctional education and recidivism. Specifically, empirical studies that have been conducted all contain within them methodological limitations

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due to a lack of controls for risk factors of recidivism. Of the 10 studies used in this project, none of them controlled for all the risk factors of recidivism (age, race, gender, marital status, employment, and educational attainment). Rather, few to little controls were used in the studies. As well, other factors not addressed were motivation and discipline of inmates in their decision to participate in correctional education programs.

In order to influence political changes, research needs to be methodologically sound. One solution to a methodologically sound study of correctional education and recidivism research would include controls for all the risk factors of recidivism. By controlling for age, race, and gender, the researcher can eliminate the influence of structural inequalities that exist in the occurrences of crime. Using controls for marital status, the influence of the strength of social bonds or familial ties is reduced as well. Further, by controlling for employment the researcher can establish whether or not strain was a factor in crime commission. Without controlling for the risk factors of recidivism, causation cannot be established. Thus, our research base is left with simply a correlation between correctional education and recidivism.

Additionally, determining an appropriate measure of recidivism is a key factor in developing a sound methodology for recidivism research. Many measures of recidivism have been indicated in the research, such as re-arrest, re-conviction, and re-incarceration. However, as discussed previously, these measures are often problematic in that, when measured independently, they fail to account for some criminal activity. One solution is to first determine an adequate definition of recidivism. Many researchers agree that recidivism can be defined as a "return to" (Brazell, 2009; Chappell, 2004). Utilizing this definition and applying it to the criminal justice policy of "innocent until proven guilty," researchers can develop an appropriate measure of recidivism. For example, conviction is commonly the indicator of guilt in the U.S. criminal justice system. Therefore, re-conviction would be the most suitable measure of recidivism in that it captures (compared to the other indicators) the most crime.

Accomplishing the task of creating a methodologically sound research study of correctional education and recidivism is one step toward changing the political policies that have eliminated funding. However, the influence of empirical research on political changes still contains issues. First, public opinion greatly influences political will and the trajectory with which policies flow. The task of changing public opinion is insurmountable, especially due to the lack of influence of empirical research on the views of the public. For example, despite the large body of research that exists regarding the hazards of smoking, some portions

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of the population still continue this behavior. Policy changes appear to have the greatest impact on public behaviors, such as nonsmoking policies, when advocates begin to vocalize their support or nonsupport of specific interests.

There is little doubt that the politics of correctional education has influenced the lack of funding for programs. In 1994, President Clinton signed into law the Violent Crime Control and Law Enforcement Act (VCCLEA), which was monumental in the elimination of funding for inmates to participate in correctional education. Shortly after, many education programs were closed by states lacking financial support of these programs (Brazell, 2009). At the same time, the VCCLEA allowed funding to be allocated to other criminal justice departments. The continual shifting of funds from department to department is an example of the politics at work in the funding of correctional education programs. However, the haphazardness of political fluctuations creates many detrimental results. The issue of funding in any arena is certainly a political game. In the area of corrections, the issue is heightened due to the perceived population that benefits from increased funding.

This certainly raises the question of who benefits from increased funding for correctional education. Initially, the offender receives the most benefit for increased education. This benefit is then shared with the offenders' family through increased contributions. The benefit continues to influence society through economic boosts and through reduced costs of re-incarceration. Essentially, everyone benefits from correctional education. Through this logic, therefore, increased funding for correctional education benefits everyone.

As shown, research for correctional education and the impact on recidivism is still needed. Emphasis on research that is methodologically sound is important in order to influence public policy to increase funding for correctional education. From the research base, it can be determined that correctional education reduces recidivism through increased employability. It is important for researchers to explore the role of employment on recidivism. More importantly, understanding the relationship between correctional employment programs and recidivism is needed. A call for more research on correctional programs, education and employment, and their impact on recidivism is imperative.

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