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“Prison Education Program Participation and Recidivism”

A Thesis

Presented to the

McAnulty College and Graduate School of Liberal Arts

Duquesne University

In partial fulfillment of

The requirements for the degree of

Masters of Arts

By

Zarona Ismailova

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Table of Contents

Abstract	iv
Introduction	1
Literature Review	6
Conceptual Framework	18
Methodology	22
Findings	28
Conclusions, Implications, and Limitations	39
Bibliography	42

Abstract

This study utilizes logistic regression techniques to investigate the effect of prison education program participation on recidivism rates. I tested the hypothesis that inmates who actively participate in educational programs have a lower likelihood of being reconvicted. The purpose of this study is to help identify correctional programs that have a positive impact on recidivism, to then suggest policies that are directed at rehabilitating inmates and, ultimately, to reduce recidivism rates.

I used pre-existing data from reputable sources so I did not have to survey inmates. The initial tests found that there were several variables that had a relationship with recidivism. The logistic regression test showed that inmates who participate in prison educational programs are less likely to be reconvicted upon release from prisons than those who participate in both educational courses and vocational training.

Recommendations that result from this finding include an increase in the number and quality of educational programs in prisons. One hopes that these recommendations will help decrease the number of people who violate the law upon their re-entry into society.

I. Introduction

The concern of the proposed study is the effectiveness of several Federal Bureau of Prisons (FBOP) policies, operations, and programs aimed at reducing recidivism. I argue that prison education programs are representative of a larger number of normalizing prison programs and operations found in many contemporary prisons that serve to increase prison safety and decrease recidivism. Normalizing programs and operations achieve these goals, I argue, by reducing prisonization and by nurturing pro-social norms. Using data from a cohort of Federal prison releasees, I tested the hypothesis that inmates who actively participate in educational programs have lower likelihoods of recidivating, defined as a re-arrest or parole revocation within 3 years release, controlling for several background measures. Results from my study and from previous studies show that inmates who actively participate in education programs have significantly lower likelihoods of recidivating. Because this effect is independent of post-release employment, I argue that results support the normalization concept.

In line with past and ongoing recidivism studies, my study updates our understanding of recidivism among Federal prison releases by evaluating the effects BOP programs have on inmates and their adjustment into the freeworld after serving any time in prison. I defined recidivism as violating the law or probation, which results in a return to a correctional facility within three years of the inmate's release. Uncovering possible factors that affect recidivism rates, either positively or negatively can be very useful in policy creation. If this research can help address problems before people end up back in prison, maybe society will benefit from it. If just one person who is in the prison now can avoid recidivating and is provided with the tools with which to respond to the challenge

of adjustment to the freeworld or if it can help an incarcerated parent resume his or her role with family and children, and become productive in society instead of committing a crime, then I would feel that this research project has been worth the effort.

II. Rationale

The interest for the proposed study stems from the realization that the twenty-first century has begun with American prisons and jails under more than usual pressure. The national inmate population is at an all-time high, indeed six times higher than it was in the early 1970s. Hundreds of prisons have been opened in the last two decades (Maurer, 1999).

Criminologists and politicians have debated the effectiveness of correctional rehabilitation programs since the mid-1970s when criminal justice scholars and policy makers throughout the United States embraced the conventional wisdom that ‘nothing works’ (Lipton, Martinson and Wilks, 1975). Programs based around punishment and surveillance grew. They are being embraced even stronger today despite the fact that Martinson later admitted that he was wrong (1979). An ample amount of research exists that suggests that there are successful programs available to reduce future criminality of not only offenders but also of potential offenders. The proposed study will focus on BOP education programs aimed at reducing recidivism.

This study argues that prison education programs are representative of a larger number of “normalizing” prison programs serving to increase prison safety and to decrease recidivism.

Gresham Sykes identified five pains of imprisonment: isolation from the larger community; lack of material possessions, blocked access to heterosexual relationships; reduced personal autonomy; and reduced personal security (1956). Sykes argued that these deprivations foster what is currently referred to as prisonization, that is, alienation from the prison staff and management, and from the larger society. Additionally,

criminologists argue that many inmates bring to prison a commitment to criminal subcultures and criminal norms (Irwin and Cressey, 1962). Both the deprivation of imprisonment and the imported criminogenic norms, criminologists argue, facilitate the growth of inmate subcultures favoring a normative orientation hostile to prison management and supporting a continuation of criminal behavior after release from prison (Kassebaum, 1974).

While prisons, given their statutory mandate, cannot directly eliminate the pains of imprisonment, either by freeing inmates or by making life in prison nearly identical to life in the larger community, prisons can be organized in ways that simultaneously mitigate these pains and offer inmates seeking relief opportunities to find it in ways that promote their adoption of pro-social norms. This is done in many prisons today. By breaking down the barriers between staff and inmates, providing role-models of pro-social behavior, and by importing, when possible, institutional programs such as schooling and work, which in the community, serve partly to socialize/normalize people toward pro-social norms and behavior (Harer, 1994).

In practice, these normalizing programs and operations can take many forms, including emphasis on staff use of a human relations approach when working with inmates; a unit management style of prison operation; prison industries and other work programs; female correctional officers in male institutions; social furlough programs; use of effective classification techniques; a formal policy guaranteeing inmates' due process rights when charged and adjudicated for rule violations; guidelines for sanctioning misconduct that eliminates disparity; and education programs, to mention only some of what I see as normalizing policies, programs, and operations found in many modern

prisons (Johnson, 1996). All of these programs facilitate humane treatment of inmates, open lines of communication between staff and inmates, and provide opportunities for diversion from pains of imprisonment in ways that legitimate and reinforce law-abiding norms. My perspective is similar to that of Robert Johnson (1996) who argues for prison operations that provide inmates with encouragement and opportunities to find “niches,” as he calls them, in which inmates can “maturely cope” with the “pains of imprisonment.” Johnson claims that inmates who learn “mature coping” in prison will also cope more maturely with life in the community after release and, therefore, will be less likely to recidivate (Johnson, 1996). Findings of this study are significantly important, as they identify which normalizing programs and operations are the most successful. This knowledge is especially crucial while making a policy recommendation about the shift to creating humane prisons in which inmates are provided opportunities and encouragement to strengthen their social bonds (i.e., normalization) through programs emphasizing work, education, substance abuse treatment and etc. By design, this new policy emphasizes individual responsibility and targets prison conditions and inmate needs that contribute to positive prison adjustment and to a productive non-criminal life after release from prison.

There are numerous hypotheses to be tested in this proposal, which is why it is necessary to identify all of the dependent and independent variables involved. The primary hypothesis contains recidivism as the dependent variable and education program participation as the independent variable.

Hypothesis: Inmates who actively participate in education programs have significantly lower likelihood of recidivating.

III. Literature Review

The prison, a special location in which to place people for punishment for their crimes, was introduced soon after the revolution, ostensibly as a device to reform offenders (Irwin and Austin, 1997). Americans adopted the concept “penitentiary”, where felons would “be kept in quite solitude, reflecting penitently on their sins in order that they might cleanse and transform themselves” (Irwin, 1980, p.2). After several decades of building and running penitentiaries, the state more or less gave up on reformation but continued to use the prison as the main form of punishment for serious crimes. After World War II, many states returned to the reformatory goal. Prisoners were to be “rehabilitated.” This era lasted until evidence mounted that rehabilitative efforts were making no difference – that is, prisoners who were involved in treatment programs returned to prisons at the same rate as those who were not (Irwin, 1980). This persistent finding of “no difference” convinced social scientists and then criminal justice policy makers that rehabilitation had been a mistake (Martinson, 1975). At this time, the general society entered a punitive period, which continues today.

American society makes an enormous investment in prisons as part of social policy. However, we must consider the costs and benefits of increased imprisonment rates. The financial cost is the easiest to estimate. Most people are aware that prisons are expensive to build and operate. Prisons are built at \$100,000 per cell and \$30-50,000 in annual costs per inmate is added to the tax burden (Mauer, 1999).

The full range and depth of the social costs, which are tremendous, are much more difficult to identify and measure accurately. Perhaps the highest cost of extension of the use of imprisonment is the damage to thousands of people, most of whom have no

prior prison record and who are convicted of petty crimes, and the future consequences of this damage to the society (Cory and Gettinger, 1984). These persons are being sent into dangerous, crowded prisons with minimal access to job training, education, or other services that will prepare them for life after prison. Some marginally involved petty criminals are converted into hard-core, violence-prone convicts who dominate prison wards (Irwin and Austin, 1997).

In 1970, there were about 200,000 people in prisons or around 100 prisoners for every 100,000 people in the population. This incarceration rate (100 inmates per 100,000 populations) had been relatively stable since the beginning of the twentieth century. However, around 1970, the incarceration rate began to rise rapidly. At the end of 2001, over 2.1 million people were locked up in prisons, jails and juvenile facilities in the United States (Beckett and Sasson, 2004). Now the incarceration rate in the United States is 600 per 100,000. This is the second highest incarceration rate in the world. The only country with the higher incarceration rate is Russia, at 690 per 100,000 (Currie, 1998). But prisons and harsher laws tend to divert valuable funding away from public schools and other programs that tend to make communities much safer. America has become so focused upon prisons as the answer to its social ills that today one in every 37 Americans is either in a state or federal prison or jail, or has been in the past (The Associated Press, August 18, 2003).

Since at least as far back as the time of Aristotle (1911), philosophers and scholars of education have argued that education creates the socially good (i.e., moral) person. These scholars viewed the educated person as having both the knowledge and reasoning ability synonymous with the truly free and moral human being. Uneducated,

unsocialized/contrasocialized persons, incapable of informed moral reflection, are the truly imprisoned. However, to paraphrase Mark Twain, there has probably been more said about educating prisoners and less done about it than anything else in the United States (MacCormick, 1971). Since the founding of this country there have been many who talked and wrote about the subject. But Austin Harbutt MacCormick attempted to do something about inmate education (1971). After a long and difficult study, he proposed a program for educating adult prisoners.

Education in prison began originally with religious and vocational training. Those supporting prison education argued that illiteracy, common among prisoners, was an important factor leading to incarceration, and that providing a remedy for this educational vacuum would allow the offender to deal more effectively with the society that he had rejected. Yet the growth of prison schooling, either to combat illiteracy or to offer vocational training, lagged far behind educational movements in general (Roberts, 1973).

All would agree that prison education cannot be effective without systematic curricular planning at all levels. Courses may be offered because they develop skills needed in prison work programs, but curriculum should also develop skills, goals, and habits of social responsibility needed after release. But there is more. Counseling and guidance, in a social sense, are essential to education. Inmates especially need realistic appraisal (MacCormick, 1971).

Prison education programs are one critically important component in this new normalizing paradigm. Prison education program participation normalizes by offering relief from the pain of imprisonment and by helping inmates to appreciate and adopt pro-social norms.

However, the most difficult area to assess is the rehabilitative value of education in prison. Any measuring of the effectiveness of education is fraught with difficulties. Many studies do not seem to achieve adequate conceptualization – perhaps there are too many variables. And statements of individual rehabilitation go only with the single instance in a single life. We have no way of knowing whether education of any kind is the motive force for rehabilitation (Roberts, 1973).

Aims of education are the same for all men everywhere. These are general principles that can be provided. Prisoners serve hard time, as they are meant to, but typically learn little of value during their time behind bars. They adapt to prison in immature and often destructive ways. As a result, they leave prison no better, and sometimes considerably worse, than when they went in (Johnson, 1996). One of the most penetrating comments on this point is that of a prisoner.

Reformation, like education, is an intrinsic thing. It must come from within the one who is to be affected. It can get its inception, however, from the contacts made and the situations arising from a definite program of training for work, studies, and the proper use of leisure time.

The process of education must be creative, that is, character building. Every institution program should place emphasis on education and use it as a basis for preparing men and women prisoners to meet properly the problems that will confront them in the days after they have left the institution. A desire to become stalwart, self-reliant men and women must be created (Roberts, 1973:54).

The primary objective of exposure of inmates to education and training is to help equip them for good citizenship upon release. The prevailing objectives should encompass programs designed to meet the needs, interests and abilities of each inmate to the end that he will return to society capable of and willing to become a contributing member in a socially acceptable manner (Davidson, 1995). However, educational programs are not offered in all correctional institutions and even if they are, not all of them are offered in short, attainable manner and are meaningful to the learner.

There are different ways to offer correctional education. Although this study is not designed to look into a particular form of correctional education, I believe it is useful to mention how other researchers measured the effectiveness of different educational programs and their impact on recidivism.

Gerber and Fritsch (1994) conducted a comprehensive assessment of the research literature on correctional education. They divided the studies into three subject areas: academic education (further divided into adult basic/secondary education and college education), vocational education and social education. For example, Anderson, Anderson, and Schumacker (1988) measured educational program exposure by completion of the General Equivalency Diploma (GED), or higher. Nine of the fourteen studies found educational program participation to be related to recidivism. Of the seven studies that received the highest methodology score, three found no relationship between educational programming and recidivism, and four showed inverse correlations; the more education, the lower the recidivism (Gerber and Fritsch, 1994).

Porporino and Robirtson (1992) monitored 1,736 adult basic education (ABE) participants released from Canadian prisons in 1988. Among those who completed the

ABE program, 30.1 percent were readmitted to prison during the follow-up period. Recidivism was 35.5 percent among those who were released from prison before the ABE program could be completed, and 41.6 percent among those who withdrew from the AB program. Porporino and Robertson also reported that the effects of ABE program participation were especially effective among higher-risk offenders (1992).

Gerber and Fritsch examined fourteen studies of the effect of college programs in prisons (1994). Measurement of program participation varied across studies, from simple measures of “participation,” to completion of twelve college credit hours, to completion of a college degree. Overall, they found that “most studies [ten of fourteen] report an inverse relationship between college education and recidivism” (1994, p.6). As participation in college programs increased, recidivism rates decreased. Many of the researchers who carried out these studies recognized, however, that confounding effects were substantial. For example, in a study of New York inmates in which earning a college degree was associated with substantially lower return to prison rates, but the investigators acknowledged that graduates may succeed because of unmeasured attributes such as “motivation” and “competence.” As with the studies of basic and secondary education reviewed by Gerber and Fritsch, analysis of college programming found that participants were more likely to be employed after release (three of three studies) and more likely to participate in additional educational opportunities after release, and that college program participants may have more favorable prison disciplinary records than non-participants.

While the purpose of this study is to see if participation in prison education programs has any impact on recidivism, I thought that it might be useful to see if

participation in vocational education programs, as part of normalizing prison programs, is associated with recidivism rates.

Gerber and Fritsch examined thirteen studies of vocational education programs and found an inverse relationship between participation and recidivism in nine studies. Thus participation in vocational education programs was associated with reduced recidivism rates. As an example, Saylor and Gaes (1997) investigated vocational technical training while in the Federal Bureau of Prisons and found that “inmates who received vocational training while in prison showed better “institutional adjustment” (fewer rule violations) than those who did not receive such training, were more likely to complete stays in a halfway house, were less likely to have their paroles revoked, and were more likely to be employed after release” (Gerber and Fritsch, 1994, p.8).

Labor and education programs are the oldest and most enduring of all correctional intervention methods. Improving inmates’ educational skills may reduce recidivism, however, despite promising findings that support this claim, funding for these programs has not kept pace with the recent expansion of the prison population. During the “get tough on crime” environment that dominated the 1990s, many states cut existing prison educational programs, often to fund new prisons.

The ultimate goal of correctional education is to reduce recidivism – to help inmates become self-sufficient so that they can be re-integrated into society and become productive and successful workers, citizens, and family members.

According to the survey of correctional facilities conducted by Bureau of Justice Statistics in August 2003, 83 percent of correctional institutions offer some type of education program – 92 percent of federal, 90 percent of state, and 80 percent of private

facilities. Most of these institutions provided vocational training (54 percent), basic adult education (76 percent), and secondary education (80 percent). However, according to this survey, at least half of all state correctional institutions had cut their inmate educational programs over the prior five years.

Despite the fact that there is a long-term declining investment, some are optimistic about a turnaround. For example, Marc Mauer, assistant director of the Sentencing Project based in Washington, D.C., says the climate “has changed substantially,” adding, “There is a growing liberal-conservative consensus that it is in everyone’s interest that we provide resources in prison that decrease the chances of recidivism” (Slevin, 2005:A03).

According to the Bureau of Justice Statistics, 67.5% of released prisoners in 1994 were rearrested for a new crime within 3 years of release (2002).

The high rate of recidivism is extremely important in relation to crime. A large portion of the crimes can be attributed to recidivists. A large part of the work of the police, the courts, and the penal and reformatory institutions is concentrated on recidivists. They provide more than their share of the failure on probation and parole, and more than their share of the disciplinary problems in the institutions. Massive walls and other devices to prevent escapes are needed principally for recidivists (Sutherland, 1947).

However, recidivism and crime rates are readily reducible at 16-62 percent and more by broader use of existing rehabilitation programs – substance abuse treatment, academic and vocational education, post-secondary education, intermediate sanctions, and alternatives to incarceration (Cypser, 1997).

Nearly 80 percent of state prison inmates have not completed high school. Eighty percent of these may have learning disabilities (Bureau of Justice Statistics, 1993). A RAND study by the Office of Correctional Education (1994) noted that the cost effectiveness of graduation incentives, in serious crimes averted per million dollars spent was calculated to be five times better than that of the 3-strikes program. Recidivism of young parolees is also related to the amount of prior education. Recidivism did not increase despite the fact that, as an incentive, graduates were released to parole about 10.6 months prior to their court determined minimum period of incarceration according to a 1996 legislative report by the New York Department of Correctional Services (Bureau of Justice Statistics, 2001). Many states are granting early release to non-violent prisoners, cutting sentences, sending drug offenders to treatment centers, and revising tough-on-crime laws in reverse of a 20-year trend as cost-saving measures (McMahon, 2003).

One study found that the recidivism rate for those who received both the GED certificate and completed a vocational trade was over 20 percent lower than for those who did not reach either milestone. The overall recidivism rate for college degree holders was a low 12 percent, and inversely differentiated by type of degree: Associate, 13.7%; Baccalaureate, 5.6%; and Masters, 0% (US Department of Education, 1988-1994). The more educational programs successfully completed for each six months confined the lower the recidivism rate (Harer, 1994). In 1983 a study of the Folsom State Prison college program revealed a zero percent recidivism rate for inmates earning a bachelors degree, while the average recidivism rate for the state's parolees was 23.9 percent for the first year, increasing to 55 percent within three years (Taylor, 1992). College education

does reduce the likelihood of recidivism principally through post-release employment (Batiuk, Moke, and Rountree, 1997). Employed ex-felons become taxpayers and reduce the odds of their children eventually ending up in prison.

Since at least the late 1950s, the BOP has conducted several recidivism studies regarding recidivism risk prediction indexes and prison program effectiveness. The BOP has worked closely with the United States Parole Commission (USPC) in the development and revalidation of the Salient Factor Score (SFC), a statistical instrument used by the USPC in actual decision making (Gottfredson, Wilkins, and Hoffman, 1978; Hoffman and Beck, 1974; Gaes, 1986). The BOP has conducted recidivism studies to evaluate halfway house release (Beck, Seiter, and Lebowitz, 1978); large scale rehabilitation programs, such as those at the Robert F. Kennedy Youth Center at Morgantown, West Virginia (Cavior, Schmidt, Karacki, 1972).

Sex, race, age, drug abuse, alcohol abuse, drug treatment, alcohol treatment, educational programs, vocational training, crimes involved firearms and felony or misdemeanor crime committed all seem to be relevant variables for this study.

Men comprise the majority of US prisons. Of the total correctional population, men account for 93%, or around 1,391,781 (Harrison and Beck, 2005). However, while most US prisoners are male, the female inmate population has reached a record high and continues to climb. According to the National Commission on Correctional Health (2005), “women are the fastest growing segment of the US incarcerated population, increasing an average of 5% each year” (p.1). While the exact figures vary, researchers estimate that the total female correctional population has increased between 118 and 131% from 1990 to 2000 (Harrison and Karberg, 2004).

The general demographics of the US incarcerated population indicate widespread sentencing disparity for those of color and lower socioeconomic status. The majority of inmates identify as racial minorities, with 43.91% African American, 18.26% Latino, 3.11% “other”, and 34.72% white (Harrison and Karberg, 2003). This is in stark contrast to the racial proportions in the general population: 12.32% African American, 12.55% Latino, 6% other, and 69.13% white (US Census Bureau, 2000). According to Harrison and Karberg (2004), “Black males are incarcerated at the rate of 4,810 per 100,000. Hispanic males are incarcerated at the rate of 1,740 per 100,000 and white males at the rate of 649 per 100,000” (p1).

Literature also reveals that although traditional predictors of male recidivism, such as age, criminal history and drug use are also predictive of female recidivism, a history of homosexuality and antisocial personality are the most powerful predictors of recidivism among females (Salekin, Rogers, Ustad, and Sewell, 1998).

All types of criminal offenders tend to decrease their level of criminal offending as they age. Indeed, a recent study found that offenders who are arrested first at age 14 were significantly likely to be chronic offenders who committed more serious crimes at the highest rates (Dean, Brame and Piquero, 1996).

The literature also points out that substance abuse treatment is associated with reduced criminal activity as well as reduced drug use.

In light of the literature review, the independent variables from the National Archive of Criminal Justice Data that relate to recidivism, my dependent variable, are sex, race, age, drug abuse, alcohol abuse, criminal history and participation in education courses.

This study will test hypotheses about the normalization effects of education programs aimed at reducing recidivism.

IV. Conceptual Framework

In the United States, deterrence theory, which is attributed to Cesare Beccaria and Jeremy Bentham “is now the most popular approach to the study of social control,” and is the foundation for its criminal justice system (Liska, 1981:94). Beccaria (1764) proposed that "better" deterrence would occur if the harm of a punishment exceeded its potential gain, or perceived benefits as Bentham (1823) put it. Because of the perceived failure of rehabilitative technologies and the increase in the officially recorded crime rates during the 1970's and 1980's attention returned to an analysis of the criminal decision making process. At this time the rational choice theory emerged. This theory assumes that people are rational and that crime is the result of rationally calculating the costs and benefits of law violations. “Deterrence theory assumes that the more immediate the punishment, the lower the level of law violations” (Liska, 1981:95).

I disagree with the rational choice theory as a complete explanation of criminal behavior. I therefore rely on Ronald Akers’ social learning theory. The social learning theory was constructed by Ronald Akers as a revision of Edwin H. Sutherland’s differential association theory. As such this theory is a theoretical perspective which is compatible with more specific raids into the explanation of deviant behavior. These are the general principles of social learning theory: People can learn by observing the behavior of others and the outcomes of those behaviors. Learning can occur without a change in behavior. Social learning theorists say that because people can learn through observation alone, their learning may not necessarily be shown in their performance. Learning may or may not result in a behavior change. Cognition plays a role in learning. Over the last 30 years social learning theory has become increasingly cognitive in its

interpretation of human learning. Awareness and expectations of future reinforcements or punishments can have a major effect on the behaviors that people exhibit.

The social learning will explain a favorable rate of recidivism reached by providing correctional programs to inmates. Deviant behavior can be expected to the extent that it has been differentially reinforced over alternative behavior. Progression into participating in education programs or decision not to participate in education programs is determined by the extent to which a given pattern is sustained by prison education program participation with social reinforcement, exposure to models, definitions through associations with using peers, and by the degree to which it is not deterred through negative sanctions from peers and the law.

Differential association, which refers to interaction and identity with different groups, occurs first. These groups provide the social environment in which exposure to definitions, imitation of models and social reinforcement for participating in education programs or not take place. The definitions are learned through imitations and social reinforcement of them by members of the groups with whom one is associated. After the initial decision to pursue education, imitation becomes less important while the effects of definitions continue. It is at this stage of the process the actual consequences of the specific behavior come into play to determine the probability of staying in that particular education program will be continued or not.

According to learning theory, human behavior is guided by norms and behavioral rules learned through explicit lessons and by observing, imitating, and internalizing the behavior of others.

From the differential association/learning theory perspective, criminal behavior and any supportive cognitive skills are learned, just as socially acceptable behavior is learned, although the content of criminal learning is obviously different from the content of pro-social learning.

I have two justifications for using differential association/learning theory as applicable to my idea about the process and potentially positive outcomes of prison normalization. The first justification is the definition of normalization given by Michel Foucault, from whom I borrowed the concept of normalization (Foucault, 1977). For Foucault, normalization is a process of education and re-education achieved through lessons, surveillance, examination, rewards, and sanctions that occur, and re-occur, throughout a person's life as the individual participates in various social institutions such as religion, school, university, prison and etc (1977). Normalization is taken up by all society's institutions as a mechanism of shaping the individual's behavior and cognitive make-up in compliance with the institution's rules and desired behavioral outcomes. The second justification for taking differential association/learning theory as the theoretical root of normalization is prisonization. According to Donald Clemmer, prisonization is the process through which an individual takes on the values and mores of the penitentiary; where the prison is a world in and of itself, and where inmates develop ways in which they modify their behavior to fit and adapt (1958).

Prisonization occurs when one enters the prison. The inmate learns the language of the institution and assigns a new meaning to conditions they had once taken for granted. Absolute prisonization does not occur in every man, but many experience some level of prisonization (Clemmer, 1958).

The combination of these two theories, social learning and differential association will explain a favorable rate of recidivism reached by providing correctional programs to inmates.

Specifically, I expect that the number of inmates who decide to participate in prison education programs increases when there is a greater exposure to inmates participating in these programs rather than non-participating models.

The data used for this study are from a study of recidivism in 272,111 prisoners released in 1994, representing two-thirds of all prisoners released in the United States that year. A study was released by the Bureau of Justice Statistics in 2002 and serves as the second study of the recidivism conducted at the national level. My analysis will be conducted on a subsample (N=38,624) and will contain only persons having a prison stay more than 12 months. This will be done because those in prison for less than a year may not have sufficient opportunity to participate meaningfully in education programs.

My dependent variable is recidivism and my independent variables are multiple, they include: demographical characteristics and criminal history record, participation in education courses.

Hypothesis: Inmates who actively participate in education programs have significantly lower likelihood of recidivating.

V. Methodology

Operational Definitions

For this study my dependent variable will be “recidivism.” According to Michael Maltz (1984) ““recidivism,” in a criminal justice context, can be defined as the reversion of an individual to criminal behavior after he or she has been convicted of a prior offense, sentenced, and (presumably) corrected” (p.1). For this particular study, I will look into those persons who were rearrested or had their parole revoked within 3 years of release from prison. For this variable, those who did commit another offense were coded as ‘1’, and those who did not commit another offense were coded as ‘2’.

Information on demographic characteristics, criminal record, drug and alcohol use, prison education, drug treatment program participation was coded from the inmate files.

The first independent variable is “sex.” This is defined as the gender of the person, which is male or female, male was coded as ‘1’ and female was coded as ‘2’.

My second independent variable is “race” it was coded in the following manner: Black was coded ‘1’, White was coded as ‘2’, Hispanic was coded ‘3’, and Other was coded ‘4’.

My third independent variable is “age.” This is simply the person’s age.

As my fourth independent variable I chose drug abuse. It is labeled as “DRUGAB,” and coded ‘1’ if an inmate is a drug abuser, and ‘2’ is not a drug abuser.

My fifth independent variable indicates whether prisoner was classified as an alcohol abuser. It is labeled as “ALCABUS,” and coded ‘1’ if an inmate is an alcohol abuser and ‘2’ if not an alcohol abuser.

Alcoholism treatment is my sixth independent variable and is labeled as “ALCTRT” indicates whether prisoner took part in an alcohol treatment program while serving the prison sentence. This variable is coded ‘1’ if an inmate participated in program and completed it, ‘2’ if an inmate participated but did not complete a program, ‘3’ if an inmate participated but unknown if completed, ‘4’ inmate did not participate in a program. The null hypothesis for this variable is that there is no relationship between alcohol treatment and recidivism.

Another independent variable I have chosen to include in the analysis is whether an inmate committed a felony or misdemeanor crime and is labeled “DFM”. This indicates whether the offense for which the prisoner was released in 1994 was a felony or misdemeanor. This variable is coded ‘1’ if felony, ‘2’ if misdemeanor and ‘3’ if local ordinance. The null hypothesis for this variable is that there is no relationship between committing a felony or misdemeanor and recidivism.

The next variable is education courses, “EDUCAT” it is a significant variable as it indicates whether prisoner took part in an education program while serving the prison sentence. This variable is coded ‘1’ if an inmate participated in a program and completed it, ‘2’ if an inmate participated but did not complete a program, ‘3’ an inmate participated but unknown if completed, ‘4’ inmate did not participate in a program. The null hypothesis for this variable is that there is no relationship between education courses participation and recidivism.

My last independent variable is vocational courses, “VOCAT”. This variable indicates whether prisoner took part in vocational training program while serving the prison sentence. This variable is coded ‘1’ if an inmate participated in a program and

completed it, '2' if an inmate participated but did not complete a program, '3' an inmate participated but unknown if completed, '4' inmate did not participate in a program. The null hypothesis for this variable is that there is no relationship between vocational courses participation and recidivism.

Research Design

This is an explanatory study that was conducted by performing an analysis of existing documents, previously collected by the state Department of Corrections.

Having reviewed the differences between the quantitative and qualitative research, I applied the conventional paradigm to the current study.

Data Collection

The data for this study was taken from a study of recidivism in 272,111 prisoners from 15 states released in 1994 from the National Archive of Criminal Justice Data. According to the Bureau of Justice Statistics (BJS) the process of data collection was as follows:

“One each State’s sample was drawn, BJS contacted the agency in that State that holds criminal history files, requesting the computerized “RAP” sheet (Record of Arrest and Prosecution) on each of the sampled prisoners. RAP sheets typically contained: identification information, each arrest charge, the level of the arrest charge, court judgments arising from arrest, the offenses the prisoner was charged with in court; it also recorded whether the prisoner was convicted of the crime for which he/she was adjudicated, information on the sentence imposed on the convicted offender. RAP sheets do not provide a complete record of every instance where a person was arrested or prosecuted in the State. After receiving a State’s RAP sheets, BJS asked the FBI for any computerized RAP sheets it had on the sampled prisoners. The information obtained from the 3 sources – (1) the 15 State Department of Corrections, (2) the 15 State criminal history repositories, and (3) the FBI – was all combined into a single study database.”

(U.S. Dept. of Justice, Bureau of Justice Statistics. Recidivism of Prisoners Released in 1994)

Population and Sample

The data used for this study are from a study of recidivism in 272,111 prisoners released in 1994, representing two-thirds of all prisoners released in the United States that year. My analysis was conducted on a subsample (N=38,624) contains only persons having a prison stay more than 12 months. A number of inmates with a 12-months stay will be identified from the entire sample.

Although Federal prison inmates without a high school or General Educational Development (GED) diploma are required to take at least one literacy course, and all other inmates are encouraged to participate in educational programs, and various incentives exist to promote participation, both participation and successful completion remains largely voluntary (Harer, 1994). The researcher cannot randomly assign inmates to successfully complete educational programs for experimental purposes; rather, inmates self-select themselves into and through programs. Therefore, I relied on statistical techniques to isolate the recidivism-reducing effect, if any, of prison education program participation. The primary concern was, guided by theory and past research, to identify empirical measures of the self-selection process that can be used as statistical controls when evaluating program impact.

The research literature suggests several statistical methods for handling selection bias. I used bivariate models and logistic regression test to predict recidivism in which a measure of program participation is included along with all variables thought to predict program participation and recidivism.

Data Analysis

For this study I used correlations and logistic regression analysis to determine the relationship between the numerous variables. Each variable that I was testing with recidivism I assumed a null hypothesis, which is no relationship between the variables. The relevant statistics and significance levels in each testing situation show if the null hypothesis can be rejected or not. If the significance of the appropriate statistic is less than 0.05, the null hypothesis can be rejected. The level 0.05 is used because it allows for a five percent chance of error. In a case where the null hypothesis cannot be rejected, it is concluded that there is no relationship that exists between the variables and thus the dependent is not influenced by that particular independent variable.

The statistical testing method I used was dependent on the level of measurement of the variable. The information I received from each procedure proved my hypothesis true or false. This showed which independent variables are significant and which ones are not. After running the initial tests, I used logistic regression analysis to further analyze the variables. Logistic regression analysis showed which independent variables influenced the dependent variable.

VI. Findings

The procedures that I used to test the hypotheses of this research produced some unexpected results. Table 1 presents the descriptive statistics of all variables involved in this research.

Table 1. Descriptive statistics of All variables in the Population (age, sex, race, drug abuse, alcohol abuse, drug treatment, alcohol treatment, education courses, vocational courses and felony or misdemeanor).

Variable	<i>n</i>	Minimum	Maximum	Mean	Std. Deviation
Age	38613	16	92	33.30	9.472
Sex	38624	1	2	1.07	.252
Race	37939	1	4	1.48	.546
Drug abuse	11458	1	4	1.33	.470
Alcohol abuse	10423	1	4	1.43	.495
Drug treatment	5320	1	4	3.75	.700
Alcohol treatment	6239	1	4	3.54	.940
Education courses	12258	1	4	2.80	1.155
Vocational courses	12029	1	4	3.06	1.134
Felony or Misdemeanor	24017	1	2	1.05	.216
Reconvicted	31974	1	2	1.61	.489

The descriptive statistics for the “AGE” variable resent the following breakdown. The youngest inmate was 16, the oldest inmate was 92. The mean age of the inmate sample is approximately 33 years old, just like it was expected to be less than 35. The SD=9.472. The range in age is very broad, but it was not unexpected.

Table 2. Population Breakdown by Sex and Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Sex	Male	35995	93.2	93.2	93.2
	Female	2629	6.8	6.8	100.0
	Total	38624	100.0	100.0	.546
Race	Black	20484	53.0	54.0	54.0
	White	16850	43.6	44.4	98.4
	Hispanic	446	1.2	1.2	99.6
	Other	159	.4	.4	100.0
	Total	37939	98.2	100.0	
Missing	9	685	1.8		
Total		38624	100.0		

The descriptive statistics for variable “SEX” corresponds to the literature review exactly. Table 2 shows that 2629 or 6.8% were female and the rest 35995 or 93.2% were male.

The frequency table for variable “RACE” shows that 53.0% of the sample was black, 43.6% was white, 1.2% was Hispanic and .4% was put in the category of other.

Table 3. Population Breakdown by Drug and Alcohol Abuse

		Frequency	Percent	Valid Percent	Cumulative Percent
Drug abuse	Yes	7678	19.9	67.0	67.0
	No	3780	9.8	33.0	100.0
	Total	11458	29.7	100.0	
Missing	9	27166	70.3		
Alcohol abuse	Yes	5984	15.5	57.4	57.4
	No	4439	11.5	42.6	100.0
	Total	10423	27.0	100.0	
Missing	9	28201	73.0		
Total		38624	100.0		

Drug abuse was broken down into two categories. 67% of inmates made up the group of those who abuse drugs and 33% reported no use of drugs.

Alcohol abuse was broken down into two categories. 57.4% of the population reported abusing alcohol, and 42.6 reported no use of alcohol.

Table 4. Population Breakdown by Drug Treatment and Alcohol Treatment

		Frequency	Percent	Valid Percent	Cumulative Percent
Drug treatment program	Completed	215	.6	4.0	4.0
	Did not complete	156	.4	2.9	7.0
	Unknown if completed	393	1.0	7.4	14.4
	Did not participate	4556	11.8	85.6	100.0
	Total	5320	13.8	100.0	
Missing	9	33304	86.2		
Alcohol treatment program	Completed	488	1.3	7.8	7.8
	Did not complete	531	1.4	8.4	16.2
	Unknown if completed	380	1.0	6.0	22.2
	Did not participate	4894	12.7	77.8	100.0
	Total	6293	16.3	100.0	
Missing	9	32331	83.7		
Total		38624	100.0		

The descriptive statistics show, Table 4, for “Drug Treatment” that 4% of inmates completed a drug treatment program, 2.9% reported that they did not complete a drug treatment program, 7.4% of the population participated in a drug treatment program but it is unknown whether they completed a program or not, and 85.6% did not participate in any drug treatment programs.

The descriptive statistics show for “Alcohol Treatment” show that 7.8% of inmates completed an alcohol treatment program, 8.4% reported that they did not complete an alcohol treatment program, 6% of the population participated in an alcohol treatment program but it is unknown whether they completed a program or not, and 77.8% did not participate in any alcohol treatment programs.

Table 5. Population Breakdown by Education Courses and Vocational Courses

		Frequency	Percent	Valid Percent	Cumulative Percent
Participation in education courses	Completed	1992	5.2	16.3	16.3
	Did not complete	3662	9.5	29.9	46.1
	Unknown if completed	1402	3.6	11.4	57.6
	Did not participate	5202	13.5	42.4	100.0
	Total	12258	31.7	100.0	
	Missing	9	26366	68.3	
Participation in vocational courses	Completed	1367	3.5	11.4	11.4
	Did not complete	3313	8.6	27.5	38.9
	Unknown if completed	634	1.6	5.3	44.2
	Did not participate	6715	17.4	55.8	100.0
	Total	12029	31.1	100.0	
	Missing	9	26595	68.9	
Total		38624	100.0		

The descriptive statistics show, Table 5, for “Education Courses” that 16.3% of inmate population completed an education course, 29.9% reported that they did not

complete an education course, 11.4% of the population participated in an education course but it is unknown whether they completed a program or not, and 42.4% did not participate in any education courses.

The descriptive statistics show for “Vocational Courses” that 11.4% of inmates completed a vocational course, 27.5% reported that they did not complete a vocational course, 5.3% of the population participated in a vocational course but it is unknown whether they completed a program or not, and 55.8% did not participate in any vocational courses.

Table 6. Population Breakdown by a Type of Crime

		Frequency	Percent	Valid Percent	Cumulative Percent
Crime	Felony	22838	59.1	95.1	95.1
	Misdemeanor	1179	3.1	4.9	100.0
	Total	24017	62.2	100.0	
Missing	9	14607	37.8		
Total		38624	100.0		

The Felony or Misdemeanor variable (Table 6) was broke down into two categories. For this sample 95.1% committed a felony and 4.9% a misdemeanor.

Table 7. Population Breakdown by Reconviction

		Frequency	Percent	Valid Percent	Cumulative Percent
Reconvicted	Yes	12594	32.6	39.4	39.4
	No	19380	50.2	60.6	100.0
	Total	31974	82.8	100.0	
Missing	8	6650	17.2		
Total		38624	100.0		

Finally, the reconvicted variable was divided into two categories. Overall 39.4% of the sample returned to a correctional facility after one-year period. 60.6% of the sample did not violate the law which resulted in a return to a correctional facility.

Correlates of Recidivism

Bivariate correlational analysis (Table 8) was conducted to evaluate the relationship between age, sex, race, drug abuse, alcohol abuse, drug treatment, alcohol treatment, education courses, vocational courses and felony or misdemeanor and recidivism.

Table 8. Correlations between recidivism and age, sex, race, drug abuse, alcohol abuse, drug treatment, alcohol treatment, education courses, vocational courses and felony or misdemeanor.

Measures	<i>n</i>	Pearson Correlation	Sig. (2-tailed)
Age	31968	.186**	.000
Sex	31974	.013*	.021
Race	31417	-.101**	.000
Drug abuse	10082	.092**	.000
Alcohol abuse	9128	.020	.058
Drug treatment	4710	.010	.512
Alcohol treatment	5657	.042**	.001
Education courses	11123	-.058**	.000
Vocational courses	10921	-.018	.062
Felony or Misdemeanor	18920	-.038**	.000

** . Correlation is significant at the 0.01 level (two-tailed).

* . Correlation is significant at the 0.05 level (two-tailed).

As can be seen in Table 8, age, sex, race, drug abuse, alcohol treatment, education courses, and felony or misdemeanor are significantly associated with recidivism. Age is negatively associated with recidivism, Pearson $r = .186$, $p < .0005$, older inmates are less likely to be reconvicted than younger ones; sex is negatively associated with recidivism, Pearson $r = .013$, $p = .021$, females are less likely to be reconvicted than males; Race is associated with recidivism, Pearson $r = -.101$, $p < .0005$, which shows significance, but because the “RACE” variable is coded in four categories, the direction of the relationship cannot be determined; Drug abuse is negatively associated with recidivism, Pearson $r = .092$, $p < .0005$, those inmates who reported drug abuse are more likely to be reconvicted; Alcohol treatment is positively correlated with recidivism, Pearson $r = .042$, $p = .001$, the

less alcohol treatment inmates receive the more likely they are to be reconvicted;
Education courses are positively correlated with recidivism, Pearson $r = -.058$, $p < .0005$,
the less education courses inmates receive the more likely they are to be reconvicted;
Felony or misdemeanor negatively correlates to recidivism, Pearson $r = -.018$, $p < .0005$,
this is a surprising finding that inmates who are convicted for a misdemeanor crime are
more likely to be reconvicted. However, this can be explained by the fact that correlation
analysis should be used for interval/ratio variables. Another explanation to this finding
may be that inmates learn deviant behavior from other inmates, as suggested by
conceptual framework. All other correlations were expected, based on what literature
review uncovered.

It was thought that drug treatment and vocational courses would play a significant
role in recidivism. This was not the case. Drug treatment and vocational courses were not
related to recidivism.

Based on what literature review suggests, I came to the conclusion that education
programs have higher impact on recidivism. However, education programs are often
offered in combination with vocational courses. In order to test the differential effect of a
combination of education programs together with vocational programs, education
programs without vocational programs, vocational programs without education and when
both education and vocational programs are absent, the logistic regression analysis was
conducted.

In order to be able to run this test, the two independent variables—educational
training and vocational training—are dichotomized into two variables—
SOMECOURSES AND SOMEVOCAT.

The “SOMECOURSES” variable was constructed by assigning ‘1’ code to values 1-3 (attended an education program, attended an education program but did not complete it, and attended a program but it is unknown if a program was completed); coding ‘0’ was assigned to value 4, those inmates who did not participate in any education program.

Table 9. Descriptive Statistics for Exposure to Education Courses

		Frequency	Percent	Valid Percent	Cumulative Percent
Exposure	Attended some courses	5202	13.5	42.4	42.4
	Did not attend courses	7056	18.3	57.6	100.0
	Total	12258	31.7	100.0	
Missing	System	26366	68.3		
Total		38624	100.0		

From the population sample (Table 9), 42.4% of inmates either completed or attended some education programs, 57.6% of the population did not attend any courses.

The “SOMEVOCAT” variable was constructed by assigning ‘1’ code to values 1-3 (attended a vocational program, attended a vocational program but did not complete it, and attended a program but it is unknown if a program was completed); coding ‘0’ was assigned to value 4, those inmates who did not participate in any vocational program.

Table 10. Descriptive Statistics for Exposure to Vocational Courses

		Frequency	Percent	Valid Percent	Cumulative Percent
Exposure	Attended some courses	6715	17.4	55.8	55.8
	Did not attend courses	5314	13.8	44.2	100.0
	Total	12029	31.1	100.0	
Missing	System	26595	68.9		
Total		38624	100.0		

From the population sample (Table 10), 55.8% of inmates either completed or attended some education programs, 44.2% of the population did not attend any courses.

Then I created four dummy variables based on the absence or presence of educational training (SOMECOURSES) and vocational training (SOMEVOCAT) (dum1=at least some vocational courses and no education courses; dum2 = at least some education courses and no vocational courses; dum3=at least some education courses and at least some vocational courses, dum4=had no education courses and no vocational courses).

Table 11. Descriptive Statistics for Additionally Created Variables.

Some vocational courses and no education courses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vocational training	11650	30.2	94.9	94.9
	No educational courses	624	1.6	5.1	100.0
	Total	12274	31.8	100.0	
Missing	System	26350	68.2		
Total		38624	100.0		

From the population sample, 94.9% of inmates attended some vocational courses and 5.1% of the population did not attend any education courses.

Some education courses and no vocational courses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Educational courses	9892	25.6	82.3	82.3
	No vocational training	2121	5.5	17.7	100.0
	Total	12013	31.1	100.0	
Missing	System	26611	68.9		
Total		38624	100.0		

From the population sample, 82.3% of inmates attended some education courses and 17.7% of the population did not attend any vocational courses.

Some education courses and at least some vocational courses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vocational training	7430	19.2	62.8	62.8
	Educational courses	4401	11.4	37.2	100.0
	Total	11831	30.6	100.0	
Missing	System	26793	69.4		
Total		38624	100.0		

From the population sample, 62.8% of inmates attended some education courses and 37.2% of the population attended at least some vocational courses.

In order to see which combination of these two variables provides for better correctional treatment logistical regression analysis has been performed.

Table 12. Logistic Regression

	B	S.E.	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
	Lower	Upper	Lower	Upper	Lower	Upper
Age	-.039	.006	.000	.962	.951	.973
Sex	-.350	.176	.047	.705	.499	.996
Drug abuse	-.276	.131	.036	.759	.587	.982
Alcohol abuse	.055	.137	.689	1.056	.807	1.382
Drug treatment	.164	.267	.539	1.178	.689	1.990
Alcohol treatment	-.247	.269	.358	.781	.461	1.323
Type of crime	-.063	.181	.727	.939	.658	1.339
Vocat without educat	-.177	.150	.236	.838	.625	1.123
Educat without vocat	-.612	.123	.000	.542	.426	.690
Vocat and education	-.154	.160	.336	.857	.626	1.173
Constant	2.156	.481	.000	8.636		

a Variable(s) entered on step 1: AGE, SEX, DRUGAB, ALCABUS, DRUGTRT, ALCTRTR, DFM, dum1, dum2, dum3.

The null hypothesis is that there is no relationship between age, sex, drug abuse, alcohol abuse, drug treatment, alcohol treatment, felony or misdemeanor and recidivism.

Table 12 shows that age, sex, drug abuse, and dum2 (some education courses and no vocational courses) are significant predictors of recidivism.

The variable “AGE” negatively predicts recidivism, with every one unit increase in age, recidivism decrease by .039 with a significance level of .000, which is less than .05, which means that we can reject the null hypothesis that there is no relationship between age and recidivism.

The variable “SEX” negatively predicts recidivism, with every one unit increase in sex, recidivism decrease by .350 with a significance level of .047, which is less than .05, which means that we can reject the null hypothesis that there is no relationship between sex and recidivism.

The variable “DRUGAB” negatively predicts recidivism, with every one unit increase in drug abuse, recidivism decrease by .276 with a significance level of .036, which is less than .05, which means that we can reject the null hypothesis that there is no relationship between drug abuse and recidivism.

The variable “dum2” negatively predicts recidivism, with every one unit increase in participation in at least some education courses and no vocational courses, recidivism decrease by .612 with a significance level of .000, which is less than .05, which means that we can reject the null hypothesis that there is no relationship between participation in at least some education courses and no vocational courses and recidivism. My primary hypotheses hold that inmates who actively participate in education programs have significantly lower likelihood of recidivating is proved to be correct. However, additional attention should be paid to the finding that education program in combination with vocational program failed to predict recidivism. And vocational training alone does not have a significant impact on recidivism.

The variables alcohol treatment and felony or misdemeanor proved to be significant when running correlation test, however they have lost their significance while running the logistic regression test.

All other variables are not significant predictors of recidivism.

Conclusions, Limitations and Implications

In the United States, each year over 600,000 prisoners are released. Of these, roughly two thirds are re-arrested and half of them re-incarcerated within three years (Bernburgh and Krohn, 2003). The cost of keeping one inmate imprisoned per year amounts to about \$22,000.

Any nation in the world has its system of separating delinquents from the society, and undertakes measures to re-integrate many of them into the society upon their release.

Incarceration, as practiced in most parts of the world, including the U.S., is obviously quite costly, and a lot is being done to limit this enormous drain of economic resources.

It was the task of this study to analyze the impact of a limited number of interventions on the rate of recidivism. Recidivism in the given context was understood as a circumstance that can and ought to be avoided, at least decreased in order to allow former delinquents to live a life as productive citizens, who contribute to the wealth of the society rather than make the society pay for what they have done.

Guiding hypothesis was that intervention (i.e. educational programs, vocational training, drug and alcohol treatment programs) of any kind would have a positive impact on the recidivism rate.

Surprisingly, this is not the case. Unfortunately, results reported here for the education program and recidivism relationship may be generalized as showing that other prison programs, such as drug and alcohol treatment and vocational courses, do not reduce recidivism. I expected that a combination of drug and alcohol treatment, education programs and vocational courses would provide for less likelihood to recidivate.

However, one of many explanations which may exist for this surprising result is that sometimes it is better to focus on one program at a time. In sum, even only focusing on the effects of educational program participation on recidivism, we see that education program reduce misconduct.

In principle, these findings speak for themselves. However, with a view to proportionally less and less public money spent per inmate on pre-release integration efforts, it is mandatory to focus scarce resources on measures that prove to be cost-effective and target-oriented. The circumstance that vocational training programs and drug or alcohol treatment do not fulfill these criteria needs to be taken into account.

Educational training costs around \$9,000 per year per inmate, i.e. less than half of the cost for an inmate that spends a year in prison. It is obvious that any additional public money spent on educational programs for inmates is money that helps to avoid higher costs occurring in the future, costs related to the more likely recidivism of the inmate should he or she not undergo educational training.

There is, however, one caveat: While data analyzed in the framework of this research clearly shows that a multi-dimensional approach which appeared to be logical (education as well as vocational training, plus -if applicable- involvement into anti-drug program) does not yield the expected results, however, this analysis does not provide an interpretation for this fact. Additional research is needed to find out about specific educational needs and programs for specific target groups (related to variables like sex, age, race, educational background, drug abuse, etc.).

It is necessary to accept delinquency as well as correctional measures and their effectiveness as society phenomena, i.e. not only phenomena that relate to an individual.

In the long run, a society cannot afford to reduce its efforts to tackle the problem of delinquency and -in the given context- of recidivism to incarceration. As simple as this statement looks, it points far beyond the moral aspect of it, it must be in the interest of the society itself to increase its security by in fact decreasing crime and recidivism, as mere incarceration is too costly.

The results of this research can only be understood as a small contribution, as one step into this direction.

The findings reveal that, out of my original eight independent variables, five are significantly related to my dependent variable. The variables age, sex, race, drug abuse and education courses are the ones that show a significant relationship to recidivism. Results of this study provide for enough evidence that prison education program participation reduces the likelihood of recidivating. I interpret this result as support for normalization hypothesis, which posits that policies directed on increasing access to education in prisons reduce prisonization and nurture pro-social norms encouraging law-abiding behavior.

Limitations to this study came primarily because I was limited in the number of variables that I had available to me. If I had made my own survey and administered them myself, I could have allotted variables that the National Archive of Criminal Justice Data did not have. But this was not done because of time, the cost of probability sampling and the sensitivity of the issue while administered by a non-native speaker of English language. Administering surveys and coding and testing them would have taken more time than is available under these circumstances.

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