



The Path to Successful Reentry: The Relationship Between Correctional Education, Employment and Recidivism

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Abstract

Nearly all Missouri inmates will be released from prison, but the majority of them will reoffend and return to prison. To combat this problem, prisons have implemented educational programs to help offenders successfully reenter society. Using data from the Missouri Department of Corrections, this study evaluates the impact of these educational programs in terms of post-prison employment rates and recidivism rates. The results show that inmates who increase their education in prison are more likely to find a full-time job after prison, and those with a job are less likely to return to prison.

Introduction

According to the Pew Research Public Safety Performance Project, "one in every 100 adults is now confined in an American jail or prison." (Pew Research Center on the States, 2008) That number increases to one in 30 when looking at men between the ages of 20 and 34—one in nine for black males between the ages of 20 and 34. (Pew Research Center on the States, 2008) On the international stage, the United States incarcerates more people per capita than any other country. (World Prison Brief, 2010) America's prison

system is exploding, nearly tripling since 1987 in terms of population and funding, and it is having dramatic effects on state budgets. With the exception of health care, expenditures on corrections have grown more rapidly than any other spending category (Sedgley, Scott, Williams, & Derrick, 2008, Arment, 2011).

One of the major drivers of these trends is the huge number of released inmates who return to prison. Of those incarcerated in Missouri, nearly all of them (97%) will be released at some point.² Of those released, according to the Department of Justice, 67% will re-offend and return to prison (Zgoba et al., 2008). One of the major barriers to successful reentry is the general lack of education and skills common in the prison population. It is well-known that the prison population is substantially less educated than the general population. Approximately 40% of state prison inmates had not completed high school compared to only 18% of the general population (Harlow, 2003). In Missouri, the average inmate has roughly a tenth grade education.³ This lack of education and skills, mixed with a criminal record, makes it even more difficult to get a job and stay

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² Missouri Department of Corrections <http://doc.mo.gov/documents/rehab/education.pdf>

³ *Ibid*

out of prison. One way many states, including Missouri, are combating the problem of excessively high recidivism rates is the implementation of programs to prepare inmates for successful reentry into society.

Educational services are one of the most popular means of rehabilitating and preparing inmates for life after prison because it “addresses two possible causes of incarceration and recidivism, lack of job skills and lack of education” (Sedgley, Scott, Williams, & Derrick, 2008, p. 497). Over 90% of state prisons and all federal prisons have some sort of educational program for inmates, and roughly half of all state inmates will participate in some sort of educational program (Harlow, 2003). This study will examine these educational services in Missouri to determine if they are producing the desired results, which will inform policymakers as to the overall effectiveness of these programs.

The Impact of Correctional Education in Missouri

The data in this study comes from the Missouri Department of Corrections.⁴ The inmates naturally fall into four cohorts (Table 1). As shown below, the inmates who successfully completed a GED in prison (Cohort 3) have lower recidivism rates and higher employment rates than those who left prison without a GED (Cohorts 1 and 2).⁵

These programs appear to be very effective at reducing recidivism rates and increasing employment rates. However, it is possible that the actual impact of correctional education is overstated in Table 1 due to the issue of selection bias. More specifically, the inmates who increased their education and successfully reentered society were individuals who may have succeeded regardless of whether these programs existed or not. For example, inmates in Cohort 1 could have a higher prevalence of mental health disease or substance

Table 1	Number of inmates	Actual Recidivism Rate*	Actual Employment Rate**
Cohort 1: Inmates who came into prison without a GED and made no progress	7,449	53.7%	45.7%
Cohort 2: Inmates who came to prison without a GED and made progress but fell short of earning a GED	2,169	50.57%	47.25%
Cohort 3: Inmates who earned their GED in prison	2,898	40.09%	58.56%
Cohort 4: Inmates who came to prison with a GED or more	12,304	43.08%	60.04%

*Recidivism rate is defined as returning to prison within two years of release.

** Employment rate is defined as individuals having a full-time job as reported by their parole officer.

⁴ The data provided has information collected on 25,000 inmates released from 2005-2008. Additionally, we were able to follow these same inmates after prison until 2010 using data collected from parole officers.

⁵ It should be noted that Missouri Statute 217.355 requires all inmates without a high school education to pursue a GED. This limits the ability of the study to compare participants versus non-participants using a randomized control group.

abuse problems, which directly affect their ability to get a GED, get a job and not return to prison. To minimize the impact of selection bias, we will analyze the data using logistic regression models, which allow us to add control variables to isolate the impact of correctional education.⁶ It should be noted that despite our best efforts to control for all of the variables which affect education, employment and recidivism, inevitably, we could not account for all of these factors—unobservable factors such as individual motivation and predisposition were unaccounted for.

After running the regression models, we are able to look at the probabilities of acquiring a full-time job and returning to prison. Probabilities are calculated holding all of the control variables at their averages while varying the education (or employment) variable. This allows us to look at how an “average” individual is impacted by increased levels of education and/or a change in employment status.

This study will specifically evaluate three interrelated hypotheses:

1. *Correctional education increases the probability of finding a full-time job.*
2. *Correctional education decreases the probability of returning to prison (controlling for employment status).*
3. *Having a job decreases the probability of returning to prison (controlling for education).*

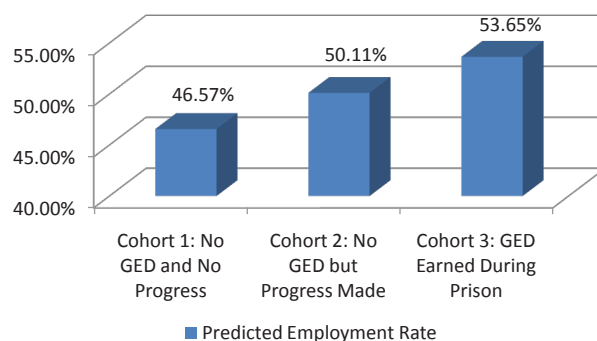
Education and Employment

First we examine hypothesis one, which is the relationship between the education an individual receives in prison and its impact on employment status after prison. For the general population, education is positively correlated with employment rates and income.⁷ Generally, as individuals increase their level of education they also increase their odds of finding a job and making more money. This process typically operates through one or more of the following mechanisms (Tyler & Kling, 2003):

1. The actual skills and increased knowledge gained through education make an individual more employable (Becker, 1993).
2. Educational credentials act as a “job market signal” to make individuals more attractive to potential employers (Spence, 1973).
3. Education acts as a motivating factor for individuals to succeed in work or further education (Tyler & Kling, 2003).

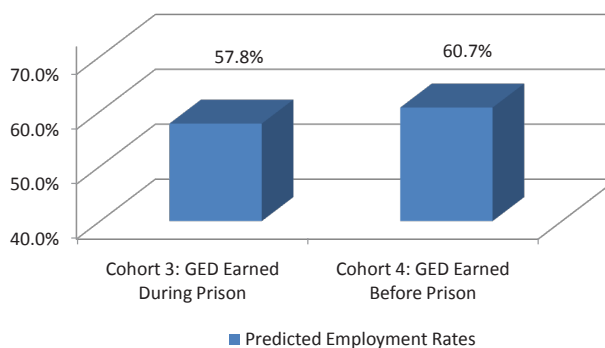
But do these findings hold true for individuals who further their education in prison? The effects of education in prison are somewhat complicated. While education is beneficial in the labor market, research shows that a criminal record is detrimental to employment and earnings (Pager, 2003). The research on the impact of a prison GED and employment outcomes is somewhat limited, however, several studies do find that successfully completing a GED has small but positive impacts on employment rates and income (Tyler & Kling, 2003; Anderson, Anderson & Schumacker, 1988).

Figure 1: Probability of Acquiring a Full-Time Job for Participants of Correctional Education



To test hypothesis one, we will include only those who participated in correctional education programs (this excludes Cohort 4). Our findings support the hypothesis that increased correctional education is positively correlated with employment rates (Figure 1). Inmates in Cohort 1, those who do not increase their education, have a lower probability of finding employment compared to similar individuals who earned their GED in prison. Thus, individuals who come to prison without a high school diploma can increase their odds of finding employment after prison by taking advantage of the educational opportunities available to them.

Figure 2: GED Earned Before Prison vs. In Prison



⁶ The control variables are: age at release, race, marital status, gender, mental health, substance abuse score, prior prison record, length of prison stay, offense type (violent or otherwise), vocational score, and risk score.

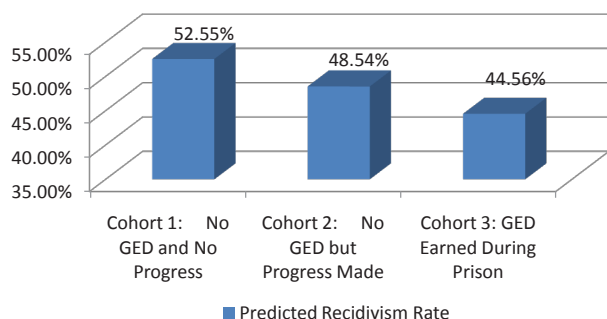
⁷ Bureau of Labor Statistics http://www.bls.gov/emp/ep_chart_001.htm

If you compare individuals who came to prison with a GED or higher (Cohort 4) to those who earn their GED in prison (Cohort 3), there is not a statistically significant difference in their predicted employment rates (Figure 2). The same cannot be said when looking at those who do not earn their GED in prison to those who earn their GED before prison. Meaning, earning a GED in prison can elevate an individual's employability to the level of an individual who was educated before entering prison.

Education and Recidivism

The next hypothesis we test, hypothesis two, is whether increased levels of education lead to lower recidivism rates. As we saw above, education is beneficial to an individual in the labor market, but is there a relationship between education and recidivism that is independent of employment? In other words, does the recidivism rate change when comparing offenders with similar employment status but with different education levels? Most studies support our hypothesis that education reduces recidivism, "the development of human capital can raise the opportunity cost of crime, suggesting an inverse relationship between the probability of committing a crime and the level of human capital developed" (Sedgley, Scott, Williams, & Derrick, 2008, p. 498). Research also shows that education has a positive effect on inmate's self-esteem, confidence, and overall happiness. Additionally, completing an educational program gives them a sense of accomplishment (Zgoba et al., 2008). Education has a positive impact on inmate's mental well-being, and this can lead to better decision-making and problem solving abilities. Previous research supports the notion that education leads to lower recidivism rates (Steurer & Smith, 2003; Sedgley, Scott, Williams, & Derrick, 2008; Brewster & Sharp, 1998).

Figure 3: Probability of Returning to Prison for Participants of Correctional Education



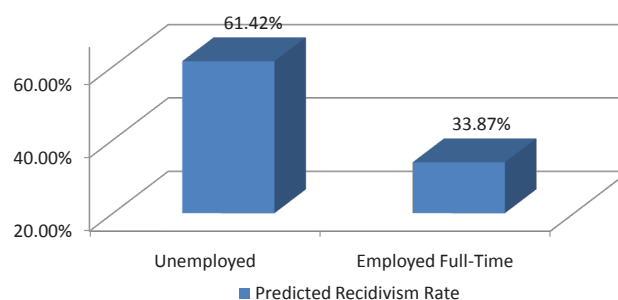
To test hypothesis two, we will again exclude Cohort 4 to look only at those who participated in correctional education. The results for Missouri inmates are presented in Figure 3. Our findings show evidence in support of hypothesis two. For these models, we hold employment status constant to isolate the effect of education. Meaning, we will examine

the probability of returning to prison for an individual with the same employment status but varied levels of education. We found that correctional education does decrease the probability of returning to prison. Individuals who earn their GED in prison will decrease their probability of returning to prison by about 8% compared to similar individuals who failed to earn their GED or make progress.

Employment and Recidivism

The final hypothesis is whether or not offenders who have a job are less likely to return to prison compared to those without jobs. This is based on the idea that individuals with a full-time job are more capable of providing for themselves and their families, which raises the opportunity cost of committing a crime. In fact, research generally supports the notion that positive employment outcomes are inversely related with criminal activity, meaning higher employment rates and income lead to lower crime rates (Bernstein and Houston 2000; Western and Petit 2000; Sampson and Laub 1993). However, there was a particular study that did not find a significant decrease in recidivism rates between employed and unemployed offenders (Tripodi, Kim & Bender, 2009). Yet, in this same study, of those who did recidivate, those with a job were able to "remain crime-free for significantly more months before being re-incarcerated" (Tripodi, Kim & Bender, 2009). The research generally supports our hypothesis, but more research is needed to fully understand the relationship between employment and recidivism.

Figure 4: Probability of Returning to Prison: Employed vs Unemployed



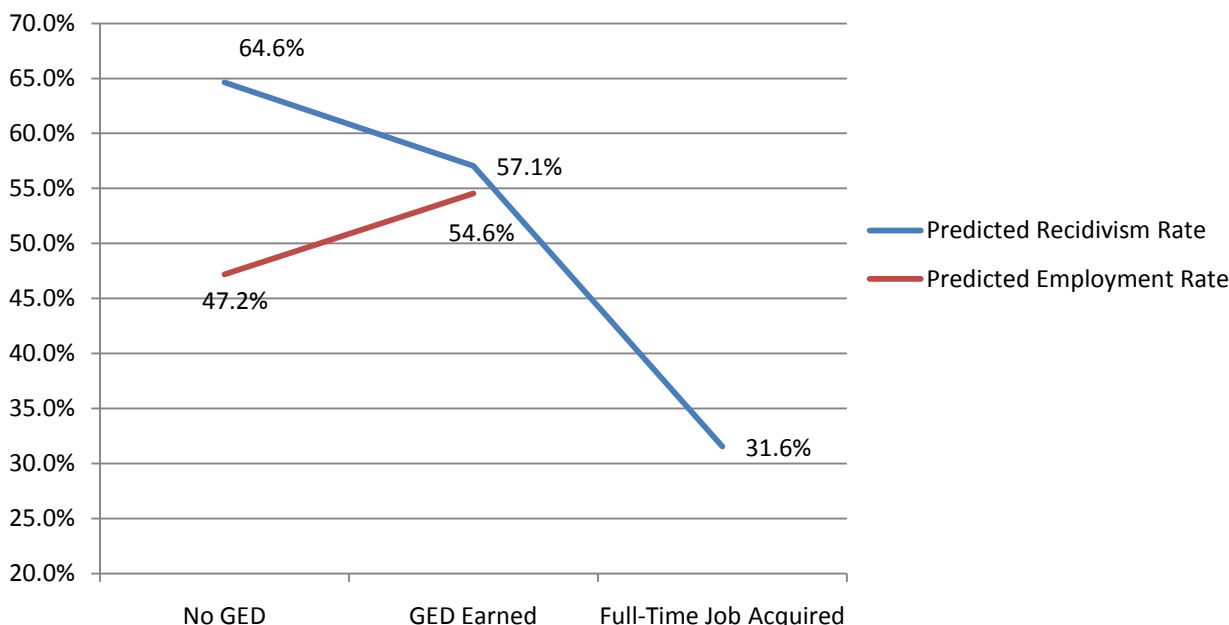
The results from examining the relationship between employment and recidivism are presented in Figure 4. We hypothesized that those who have a full-time job will recidivate at a lower rate, and this was supported by our findings. In fact, there is a very strong relationship between employment and recidivism. Those who have a full-time job are much less likely to return to prison than similar inmates who are unemployed. Recidivism rates were nearly cut in half for inmates with a full-time job compared to those who are unemployed. Employment proves to be the strongest predictor of not returning to prison in each of our models.

Conclusion

The results emphasize just how important employment is to successful reentry and reduced recidivism rates. In examining what factors contribute to inmates successfully acquiring a full-time job, correctional education proves to be beneficial in this pursuit. The best results for individuals who enter prison without a GED are found along the following pathway (Figure 5): an individual earns their GED in prison, this increased education will simultaneously increase the odds of finding a full-time job and reduce the odds of returning to prison, and last, acquiring a full-time job significantly reduces the odds of returning to prison.

Inmates who follow this path—earn a GED and get a job—can drastically reduce their probability of returning to prison. These reduced recidivism rates can save the state a substantial amount in reduced incarceration costs. A similar study in Maryland found that, “those who did not return [to prison] as a result of educational programs saved the state \$24 million dollars per year, twice the state’s investment in its correctional education program” (Steurer & Smith, 2003, p. 6). If similar results occur in Missouri, which are expected given the findings of this study, the state currently saves over \$20 million dollars per year in reduced incarceration costs as a result of correctional education programs.

Figure 5: The Pathway to Lower Recidivism Rates



References

- Anderson, S.L., D.B. Anderson, and R.E. Schumacker (1988). *Correctional Education: A Way to Stay Out*. Springfield: Illinois Council on Vocational Education.
- Arment, Christian. (2011). *Is Incarceration Still the Answer? The Impact of Current Policies and Possible Alternatives*. Retrieved From: The University of Missouri, Institute of Public Policy website: <http://ipp.missouri.edu>
- Becker, Gary S (1993). *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. Chicago: The University of Chicago Press.
- Bernstein, Jared, and Ellen Houston (2000). *Crime and Work: What We Can Learn from the Low-Wage Labor Market*. Washington, DC: Economic Policy Institute.
- Brewster, Dennis R., & Sharp, Susan F. (2002). Educational programs and recidivism in Oklahoma. *The Prison Journal*, 82(3): 1-22
- Harlow, Caroline (2003). *Education and Correctional Populations*. Bureau of Justice Statistics: Special Report.
- King's College, (2010) *London World Prison Brief Online*. International Centre for Prison Studies. Retrieved from <http://www.kcl.ac.uk/depsta/law/research/icps/worldbrief/>
- Pager, Devah (2003). *The Mark of a Criminal Record*. The American Journal of Sociology. 108(5): 937-975.
- Pew Research Center on the States, (2008) *One in 100: Behind Bars in America*. Retrieved from <http://www.pewcenteronthestates.org/uploadedFiles/One%20in%20100.pdf>
- Sampson, Robert, and John H. Laub (1993). *Crime in the Making: Pathways and Turning Points Through Life*. Cambridge: Harvard University Press.
- Sedgley, Norman H., Scott, Charles E., Williams, Nancy A., & Derrick, Frederick W. (2008). *Prison's dilemma: do education and jobs programs affect recidivism?* *Economica*, 77(307): 497-517.
- Spence, Michael (1973). *Job Market Signaling*. Quarterly Journal of Economics 3(87): 355-374.
- Steurer, S. J. and L. G. Smith. (2003). *Education Reduces Crime: Three-state Recidivism Study*. Correctional Education Association, The United States Department of Correctional Education.
- Tripodi, S., Kim, J., Bender, K. (2009). *Is Employment Associated with Reduced Recidivism: The Complex Relationship Between Employment and Crime*. *International Journal of Offender Therapy and Comparative Criminology*. 54(5): 706-720.
- Tyler, John and J. Kling. 2002. *What is the Value of a Prison GED?* Brown University.
- Western, Bruce, and Becky Petit (2000). *Incarceration and Racial Inequality in Men's Employment*. *Industrial and Labor Relations Review* 54(1): 3-16.
- Zgoba, Kristen M., Haugebrook, Sabrina, & Jenkins, Krista. (2008). *The influence of GED obtainment on inmate release outcome*. *Criminal Justice and Behavior*, 35(3): 375-387.

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