AN EXAMINATION OF THE PRISON GED: BENEFITS, FAILURES, AND THE PRISONER'S PERSPECTIVE

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Abstract

Approximately 70% of state prison inmates in the United States are high school dropouts, and state inmates on average have a 10th grade education (Western 2006). Most studies that examine the penal education of high school dropouts assess the impact of the GED earned in prison on recidivism and employment outcomes, and find that the GED does not have lasting benefits on these two proxies (Tyler & Kling 2006; Zgoba, Haugebrook and Jenkins 2008). I use the 2003 National Assessment of Adult Literacy to examine the impact of the GED earned in prison on literacy scores. My regression analysis compares incarcerated high school dropouts to incarcerated men who earned a GED in prison, and shows that earning a GED in prison improves overall literacy scores. If all incarcerated high school dropouts earned a GED in prison, the literacy gap between the general population and the prison population would be closed by over two-thirds (71%). My research highlights a missing link between improved literacy as a result of obtaining a GED in prison and recidivism and employment outcomes. I explore this gap further in the twelve interviews I conduct at Plymouth County Correctional Facility (PCCF) with men who are currently or were previously involved in the PCCF GED Program. From these interviews, I learn that most interviewees are pessimistic about the transformational power of the GED, and pursue it primarily to productively fill time. Given this, I conclude that the potential benefit of the GED program may in part be negated by the low expectations of the participants. The disadvantages faced by the interviewees, including learning disabilities, lower socioeconomic status, and bias against offenders, may be so severe as to offset some of the positive effects of the GED.

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I. Introduction

"They forget about us struggling. We go to society and struggle to get a job. Or we get education and it's hard to get a job with a GED." –Carlos¹, 35 years old

During the fall semester of my junior year, I took a class located inside MCI-Norfolk. Every Thursday, I would travel along with six fellow Harvard students to the medium-security prison. After going through security, we joined six inmates from MCI-Norfolk in a classroom and learned about community justice and mass incarceration. The men are part of a program run by Boston University, which allows Massachusetts state inmates to get scholarships to take college-level classes in prison, and if all goes well, to graduate with a degree from BU. It was clear to me that the men in the class at MCI-Norfolk were not average prisoners; not only did they all have their Graduate Equivalency Degree (GED) or high school diploma, but they were also on track to graduate from college.

The experiences I had in that class ultimately led me to begin tutoring at the Suffolk House of Correction in Boston later that fall. The prisoners I tutor are strikingly different from those I sat beside in Norfolk. For one, the large majority of those I tutor dropped out of high school, some as early as 8th grade. Additionally, many struggle to read, write, and do math at a middle-school level. These men and women often describe their struggles to me, explaining why they did not complete high school and why they now want to obtain a GED. The prisoners I tutor weekly in Suffolk Prison are far more representative of the overall prison population than were the soon-to-be college graduates at MCI Norfolk.

¹ Names have been changed for confidentiality purposes.

Incarceration and Schooling

Approximately 70% of state prison inmates are high school dropouts. On average, state inmates in the United States have a 10th grade education (Western 2006; Western and Pettit 2010). The rate of incarceration for high school dropouts has grown significantly over the past 30 years, while it has remained relatively stable for college graduates. Estimates show that over half of all African American males who drop out of high school are incarcerated at some point in their lives (Coley and Barton 2006). While in 1980, 10% of African American high school dropouts were imprisoned, that percentage grew to 37% by 2008 (Western and Pettit 2010). This enormous increase in imprisonment among people with low levels of education illustrates "an astonishing level of institutionalization...even among white dropouts...the great growth in incarceration rates among the least educated reflects increasing class inequality in incarceration through the prison boom" (Western and Pettit 2010). The crisis of mass incarceration in our society largely reflects the high rates of imprisonment among high school dropouts. Understanding how prison inmates with little schooling can gain more education is central to addressing the larger problem of mass incarceration.

Incarceration has many social and economic effects, all associated with low levels of schooling. Formerly incarcerated men earn significantly lower wages and are more likely than their counterparts in the general population to be unemployed post-release. Ex-convicts experience a 15% drop in wages and work fewer weeks per year than men who have never been incarcerated. Overall, these factors combined mean that formerly incarcerated men annually earn 30-40% less than their counterparts who have never been incarcerated. Additionally, ex-convicts are less likely to obtain "career jobs" and long-

term employment due to the stigma surrounding incarceration, their lack of skills, low levels of education, and few social connections. Because, on average, inmates are low skilled and not highly educated, they are seen as a poor investment. In turn, this prevents formerly incarcerated men from accruing benefits and employer trust, and forces them into relatively unstable jobs in the secondary sector (Western 2006:119-121). In this way, the poor economic opportunities of ex-inmates and the high risk of recidivism² are closely related to the deep human capital deficits of those who are incarcerated.

Wacquant highlights the "triple exclusion" of ex-convicts, which denies them cultural capital, social redistribution (e.g. welfare), and political participation. This triple exclusion further marginalizes the African American underclass, serving to contain them and separate them from everyone else. Additionally, the lack of ability to enter the primary employment sector and loose ties to stable community networks often mean that ex-offenders will reoffend and recidivate (Wacquant 2001:119-20).

Given the great concentration of incarceration among poorly educated men and the economic disadvantage of those men after prison release, this thesis asks: What is the effect of prison education programs, and how can we explain these effects? I examine this question by focusing specifically on prison GED³ programs. I study GED programs by analyzing the effect of obtaining a GED in prison on literacy in a sample of prisoners in the National Assessment of Adult Literacy (NAAL). My literature review suggests that even if a GED can improve literacy, educational programming may not increase employment and reduce recidivism. I explore the limited effect of the GED earned in

 $^{^{2}}$ An offender recidivates when he/she either reoffends, is rearrested, or is reconvicted in the three-year period following release from prison (Langan and Levin 2002).

³ Throughout the thesis, the term "prison GED" refers to a GED obtained in prison.

prison through qualitative interviews with inmates at the Plymouth County Correctional Facility (PCCF) in Massachusetts.

Prison Education and the Prison GED

The thesis begins with a review of two bodies of literature. The first discusses the effects of a GED earned in prison on recidivism outcomes and employment outcomes. Recidivism outcomes are an important indicator of the success of prison programs because we would expect that if a program successfully educates people, recidivism rates will be reduced (Steurer and Smith 2003). The effect of the GED earned in prison on recidivism is debated, with simpler studies finding that the GED earned in prison lowers recidivism rates (Steurer and Smith 2003; Gordon and Weldon 2003; Siegal and Basta 1997; Ramsey 1988), while more complex studies have found benefits that are not significant, or are conditional upon other factors such as race and time (Tyler and Kling 2003; Zgoba, Haugebrook and Jenkins 2008).

I then discuss the impact of the prison GED on post-release employment outcomes. Because education has been found to promote human capital, we would expect a prison GED education to ameliorate employment outcomes (Tyler and Kling 2006; Becker 1993). However, findings as to whether or not the GED earned in prison improves employment outcomes are mixed. Simpler studies with no controls for motivation, race, age, offense history, type of offense, and time since release have found that GED education positively affects post-release employment outcomes and wages (Jenkins, Pendry and Steurer 1995; Fabelo 2002). However, after controlling for confounding bias, Tyler and Kling (2003) found that post-release earnings differences between prisoners

who passed the GED test and those who attempted to pass but failed the test were not significantly different.

The second body of literature I review examines the correctional education population by surveying theories of correctional education failure. By studying the unique disadvantage of incarcerated male high school dropouts, we may be able to further understand the limited success of prison educational programming. Exploring the backgrounds of these men may help to explain their educational aspirations and achievements. I first review institutional theories that may explain the limited success of correctional education. Correctional education is notoriously underfunded and the percentage of educational staff to inmates has declined in the midst of the prison population boom taking place since 1980 (Crayton and Neusteter 2008; Klein et al 2004; Stephan 1999). Additionally, public schools in high poverty areas are underfunded and have higher dropout rates than those in middle and high-income areas, funneling disadvantaged and low-educated youth out of school and onto the streets (Brennan 2002, as cited by Wald and Losen 2003). This creates a culture in which education is not valued and incarceration is commonplace. All of this contributes to the way in which incarcerated high school dropouts (the population I examine in this thesis) view education.

I then review behavioral theories as to why the potential success of correctional education is limited. Learning disabilities and mental health problems are more common among the prison population than the general population (Greenberg et al. 2007; Leone, Wilson, and Krezmien 2008). Prisoners are also seven times more likely than members of the general population to have substance abuse disorders (CASA 2010:3). Learning

disabilities, mental health problems, and substance abuse are all contributing factors that not only make learning in prison difficult, but also may have contributed to an inmate initially dropping out of high school.

I next undertake an empirical analysis of the effectiveness of a prison GED, not by examining employment and recidivism outcomes, but actual levels of literacy among prisoners. This empirical test allows us to directly judge the capacity of GED programs to improve the skills of incarcerated men and women. Additionally, researchers have failed to study *why* the GED earned in prison does not positively affect recidivism and employment outcomes. Through my analysis of the 2003 NAAL and in-depth interviews with high school dropout prisoners, I attempt to fill this gap in the literature by first examining the effect of the GED on literacy. I then explain the link between the GED and literacy, recidivism, and employment outcomes through the prisoner interviews I conducted.

Quantitative Analysis and Qualitative Interviews

In order to more completely understand the effect of the GED on literacy, I use a mixed-methods approach, consisting of both quantitative data analysis and twelve semistructured interviews. For the quantitative portion of the thesis, detailed in Chapter 3, I analyze data from the 2003 National Assessment of Adult Literacy Survey, which is administered to both the general population and the prison population and aims to measure English literacy of adults in the United States. I use only data from the prison sample, which includes inmates from state and federal adult correctional facilities in six states and 107 prisons. I ran four separate regression analyses, one of each measuring quantitative literacy, prose literacy, document literacy, and overall literacy. Each

regression analysis compares the literacy score of incarcerated high school dropouts to incarcerated high school dropouts who earned a GED in prison. I control for possible confounding variables: age, race, learning disability, expulsion from school, incarceration before high school completion, and motivation. In this way, I was able to examine the effects of a prison GED on literacy scores. The results show that a GED earned in prison improves the overall literacy of inmates who enter prison as high school dropouts.

In order to better understand the benefits of the GED and reasons that inmates have for attempting to obtain the degree, I interview twelve inmates at PCCF. The interviews are presented in Chapter 4. I interview men who had entered prison as high school dropouts and have gone through different stages of the GED program at PCCF. Through the interviews, I was able to gain a richer and more textured view of those individuals' educational backgrounds and GED experiences, which a survey would be unable to capture. The qualitative analysis reveals the meaning of the GED for the men I interviewed and allows me to more confidently infer why these men have limited educational aspirations. These interviews shed light on the link between improved literacy and limited gains in recidivism and employment outcomes.

Key Findings

My quantitative analysis reveals that the prison GED effect on literacy is positive and statistically significant, even after controlling for confounding bias. I control for race, age, learning disability, expulsion from high school, incarceration during high school, and motivation. I do not control for gender in the quantitative analysis; my sample includes both men and women. The GED earned in prison improves overall literacy, when the reference group of incarcerated high school dropouts is compared to

incarcerated high school dropouts who earned a GED in prison. My estimates suggest that a prison GED could reduce the literacy gap between prisoners and the members of the general population by over two-thirds. However, previous research has found that the GED neither provides lasting employment benefits (Tyler and Kling 2003) nor lowers recidivism rates (Zgoba, Haugebrook and Jenkins 2008; Fabelo 2002). Thus, it seems that improved literacy by itself is insufficient to enact significant positive change in raising employment rates and wages, and reducing recidivism.

I use the qualitative analysis to more inductively explore why improved literacy has few tangible effects for inmates post-release. I find that the GED does not have a larger meaning to the men I interviewed; they do not attribute a lot of importance to the degree. This could partially explain why the GED does not have a more significant post-release impact on their lives, as measured by employment and recidivism statistics. I explain this by describing *why* men seek to earn a GED while incarcerated, and then explain how life/schooling background can partially explain the limited aspirations of the sample.

Most men simply wanted to take GED classes and earn a GED to be productive, to make the time pass faster while in prison or to stay out of trouble while incarcerated. Others told me that they took GED classes to enable them to make their children proud or to be better role models. Only three out of twelve of the subjects (25%) believed that a GED could improve their chances of employment. Although five of the men mentioned possibly wanting to go to college, they mentioned this goal only after I specifically asked them if they had plans to go to college. None of the men had definitive plans to attend college and none had specific post-release college plans of study. I conclude from this

that the majority of the men I interviewed did not plan to use their GED to help them become employed or further their education, rather, they took GED classes to make the best of their time in penal confinement. The finding that the men I interviewed do not take GED classes as a stepping stone to further their education can be explained by their past negative experiences with education, which they described to me in the interviews.

A third of the men were unable to complete high school because they were incarcerated. The vast majority of men said that drug and alcohol dependence led to their dropping out of high school. Because the men have such subpar schooling histories, it seems that they place less value on education. There are two possible reasons why increased literacy does not lead to a reduction in recidivism rates and improved employment statistics. Firstly, the men I interviewed realize that employers do not value the GED, and secondly, these inmates' prior experiences with school make them less likely to pursue further education post-GED completion. The combination of these factors leads the majority of prison GED recipients to return to the same environments and does little to change their aspirations. As a result, the GED does not enact significant and positive change in the spheres of employment and recidivism.

Thesis Layout

In Chapter 2, I give background on prison GED programs and the GED. I assess two bodies of literature, the first of which examines the effect of prison GED programs on recidivism and employment, and the second of which surveys theories of correctional education failure.

Chapter 3 comprises the quantitative section of my thesis. In this chapter, I present my quantitative findings on the association between literacy and the GED

obtained in prison. I discuss the significance of these findings along with possible sources of bias. This chapter presents the finding that the prison GED effect on literacy is positive and statistically significant.

In Chapter 4, I use the twelve interviews I conducted at PCCF to illuminate the quantitative results. Specifically, this chapter explores why improved literacy does not positively affect recidivism and employment outcomes. I discuss how the prisoners' disadvantaged backgrounds help explain the GEDs lack of benefit to the prison population in terms of ameliorating employment outcomes and recidivism rates.

Chapter 5 discusses the cultural and structural explanations as to why increased literacy and effective GED education programs in prison do not have a significant effect on recidivism and employment rates. It is possible that the effectiveness of prison education programs depend, in part, on the importance attributed to the programs by the participants. I suggest that if inmates were to see GED programming as transformational, more significant benefit might ensue. Additionally, the GED earned in prison may not be substantial enough to decrease recidivism and improve employment outcomes when men return to disadvantaged neighborhoods and poor labor markets. The GED alone appears insufficient in overcoming these obstacles. Lastly, I discuss the implications of the thesis and areas for further research.

II. Literature Review

There is much debate over whether or not prison education programs can reduce the negative impacts of being imprisoned and build human capital among prisoners. The impact of correctional education programs has been widely contested, and the results of evaluation studies have been mixed. Some authors have found that prisoners who earn a GED in prison are less likely to recidivate and have better post-release employment outcomes than prisoners who leave without a GED (Fabelo 2002; Jenkins, Pendry and Steurer 1995). Other authors have shown that the effects of the GED earned by prisoners diminish once selection bias and confounding bias are accounted for (Tyler and Kling 2003; Tyler and Kling 2006) and that the effect of the GED in prison is conditional on other factors (Zgoba, Haugebrook and Jenkins 2008). In this thesis, I focus on the effects of prison GED programs, first examining the existing literature on how the prison GED affects employment and recidivism outcomes, and then exploring problems endemic in the prison education population that impede educational progress.

Prison GED Programs

The category "prison education programs" encompasses all prison education classes, including Adult Basic Education (ABE), reading, writing and math classes, pre-GED classes, and GED classes, among others. For the purposes of this thesis, I focus specifically on GED programs/classes, that is, classes that prepare inmates for the Graduate Equivalency Degree test. I focus on prison GED programs because GED programs are common in prison, and so it is important to understand how they operate and what their effects on prisoners are. Approximately 25% of state and federal prison inmates take part in correctional education programs that either lead to high school

completion or a GED (Coley and Barton 2005, as cited by ACE 2011). The number of GED test takers in state, local, juvenile and federal facilities has more than doubled since 2002. As of 2010, there were over 45,000 GED testers in state prisons and approximately 10,000 test takers in federal prisons. 10% of GED testing occurs in correctional facilities (ACE 2011). Thus, it is important to study the GED due to the increasing numbers of people who have tested in the past decade and the popularity of such programs in correctional facilities.

According to the GED Testing Service, "The GED Tests provide adults who did not complete a formal high school program the opportunity to certify their attainment of high school-level academic knowledge and skills" (ACE 2010). The GED is "field tested and normed on graduating high school seniors" and the GED Testing Service claims that only 60% of graduating high school seniors would be able to pass the GED upon first attempt. The test consists of five parts: language arts (reading), language arts (writing), mathematics, science, and social studies. The entire test takes over seven hours to complete. Each of the five sections of the GED is scored on a scale of 200 to 800. In order to pass the test, one must receive a score of 410 or higher on each section, and must earn a minimum overall score of 2250 (ACE 2010). The GED differs from a high school education in that it doesn't technically require any amount of class time, rather, the test is meant to show that one has high school-level knowledge.

The Importance of Recidivism Outcomes and Employment Outcomes

Interest in the GED among policymakers and researchers centers on the possibility that education reduces recidivism and increases employment (Sedgley, Scott, Williams and Derrick 2008; Cronin 2011; Tyler and Kling 2003; Becker 1993; Tyler and

Kling 2006; Spence 1973). A GED may have other effects, such as improving parenting skills, for example, but those topics are seldom studied. While my quantitative analysis in Chapter 3 measures the effect of the prison GED on literacy, recidivism and employment outcomes are the two proxies that the majority of studies that assess prison education use. Recidivism and employment data are the most widely collected figures and are the most often judged as indicators of success or failure.

Studying employment outcomes as a result of prison education is important because studies have found that increased education leads to employment benefits. This is often a result of two or more mechanisms (Tyler and Kling 2006, as cited in Cronin 2011). These mechanisms are as follows: degree credentials attract potential employers and serve as "labor market signals" (Spence 1973); increased skills and knowledge (human capital) lead to increased wages (Becker 1993); increased education leads to higher education and/or training (Tyler and Kling 2003). Previous studies have examined employment outcomes in conjunction with prison education because education promotes human capital, which ameliorates employment outcomes: "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 and Derrick 2008:498, as cited in Cronin 2011). Simply put, studies both inside and outside of prison have found that education raises human capital and thus lowers the probability that one will recidivate.

Recidivism Outcomes

The effect of GED education on recidivism is highly debated, with simpler studies finding a positive and significant GED effect (Steurer and Smith 2003; Gordon and

Weldon 2003; Siegal and Basta 1997; Ramsey 1988). On the other hand, more complex studies have found effects that are diminished with the inclusion of controls, or effects that are conditional on factors such as time after release and race (Tyler and Kling 2003; Zgoba, Haugebrook and Jenkins 2008). A common design among the simpler studies compares recidivism or employment outcomes for inmates who participated in education programs to the outcomes of those who did not participate (Fabelo 2002; Gordon and Weldon 2003; Ramsey 1988).

Steurer and Smith (2003) studied prisoners from Maryland, Minnesota, and Ohio. A total of 3,170 prisoners were studied, 1,373 of whom participated in correctional education and 1,797 of whom did not. The authors found that re-arrest, re-conviction, and re-incarceration rates were lower in all three states for those who had gone through prison education programs. However, Steurer and Smith analyze prison education programs as a whole, and do not isolate the impact of GED programs specifically. While this study is indicative of the effect of prison education as a whole, we are not able to draw conclusions as to the effect of GED programs.

Ramsey (1988) compared the rearrest rates within 72 months of prison release of GED holders versus non-GED holders who both participated in and did not participate in Adult Basic Education Programs in prison. He found that rearrest rates were lower for prisoners who had received a GED. While 22% of prison GED holders were arrested, 35% who had not received a GED were rearrested. The author also found that receiving a GED in conjunction with taking Adult Basic Education (ABE) courses provides the most benefit. While 16% of ABE participants who received a GED were rearrested, the rearrest rate was much greater for ABE participants who did not receive their GED (33%)

recidivism rate). However, no statistical tests were performed and no controls were implemented; this study simply compared groups with varying levels of education.

While Ramsey (1988) studies the recidivism benefits associated with the GED and Adult Basic Education classes, Gordon and Weldon (2003) couple GED classes with vocational classes and study the resulting effects on recidivism. The authors studied 169 inmates and found that those who received their GED in prison and took vocational classes recidivated at a rate of 6.71%, while inmates who only took vocational classes recidivated at a rate of 8.75%, and inmates who took no educational classes had a 26% recidivism rate. Prison GED recipients had a much lower rate of parole violation (4%), while the parole violation rate for inmates who took no education classes was 30%. However, this study was a simple bivariate study, looking only at the recidivism rates of three different groups (no educational participation, GED and vocational participation, vocational class participation only) and implementing no controls.

Conversely, Fabelo (2002) runs a study that considers the relationship between recidivism and the GED. The author takes into account age and offense type, and finds that recidivism and the GED earned in prison do not have a positive relationship. The sample was comprised of 32,020 inmates released from Texas prisons in 1997-1998. Fabelo found no reduction in recidivism for inmates who had earned a GED in prison, compared to incarcerated high school dropouts. He also found that the recidivism rate of property offenders⁴ below 35 years old who had earned a GED increased, compared to their counterparts who did not earn a GED. However, this study had no controls and only

⁴ Property offenses include burglary, arson, larceny-theft, and motor vehicle theft (DOJ 2004).

compared recidivism rates for offenders based on offense type, age, and GED completion status.

Controls and Selection Bias

When studying the effects of a prison GED on recidivism, self-selection bias poses a key threat to causal inference about the effect of a GED. Prisoners who choose to participate in education programs may be more motivated to work hard than the general population of prisoners who choose not to enroll in GED education programs. Moreover, Wilson (2000) argues that selection bias could also arise at the administrative level. Prison administrators may be more likely to accept well-behaved inmates with greater levels of self-control and good behavior, excluding the more poorly behaved prisoners from attempting the GED. This may cause lowered recidivism and increased employment to be associated with the prison GED, while the true benefits are mostly due to the motivation and willingness of the prisoners who selected into the GED class. Consequently, the effect of a GED cannot be measured by comparing those with prison GEDs to those without the degree. In my quantitative chapter, I compare prisoners who have completed a prison GED to incarcerated high school dropouts, and I control for selection bias by instituting a number of controls. These controls include a variable for prisoners who are currently on the wait list to enter prison education programs, thus accounting for motivation to change and willingness to learn.

It is possible that we see significant drops in recidivism for those who obtain prison GEDs in some studies (Steurer and Smith 2003; Gordon and Weldon 2003; Siegal and Basta 1997; Ramsey 1988) because these inmates are more highly motivated to begin with, and thus do not return to prison for reasons that are not related to the GED. The

following studies account for selection bias and find that there are not significant differences in recidivism rates and post-release employment differences between prisoners who failed the GED test and those who passed.

Tyler and Kling (2003) run a more complex regression analysis that compares inmates in multiple stages of the GED education process and institutes more complex controls, and finds a smaller GED effect than previous studies (Steurer and Smith 2003; Gordon and Weldon 2003; Siegal and Basta 1997; Ramsey 1988). They analyzed a matched data set of 43,958 individuals in Florida State prisons from 1994 and 2002. The authors compared three separate groups of offenders of similar initial sentence length and date of incarceration. The first group was comprised of imprisoned high school dropouts who attempted but failed the GED, the second group was imprisoned high school dropouts who never attempted the GED, and the third group was imprisoned high school graduates. The authors initially find a significant and positive GED effect, but after controlling for prior time in prison, offense type, sentence length, current prison spell, race, age, and fixed cohort effects, the GED effect is diminished. They find that white high school dropouts with a GED are more likely to recidivate within two years than are high school dropouts who did not attempt the GED. Additionally, although the initial analysis revealed that minority offenders with a GED were slightly less likely to recidivate, this advantage was nullified after instituting the aforementioned controls. The authors conclude that, "past research has tended to overestimate the effect of obtaining a prison GED on recidivism...furthermore, any GED benefits that do exist seem to apply only to minority offenders" (Tyler and Kling 2003:30).

A later study by Zgoba, Haugebrook and Jenkins (2008) extends Tyler and Kling's (2003) findings. The authors examined 403 inmates released from New Jersey correctional institutions between 1999 and 2000. The authors examine 403 subjects, some of whom were incarcerated high school dropouts who were GED participants and some of whom were incarcerated high school dropouts who did not participate in GED programming. The authors ran a regression analysis that controlled for age; gender; race; substance abuse; time served; prior arrests, convictions, and incarcerations; age at time of arrest; whether offense was violent; marital status; and employment status. They found that race, drug use, previous criminal history and length of sentence served are all better indicators of rearrest than GED completion. Moreover, while participants in the GED program had a mean survival time (length of time spent out of prison before rearrest) of 17.9 months, non-participants had a mean survival time of 18.2 months, though this difference was not statistically significant. The results indicate that the GED is not a significant predictor of lowered recidivism rates.

Thus, while bivariate studies that compare prison GED vs. non-prison GED groups find a significant positive GED effect (Steurer and Smith 2003; Gordon and Weldon 2003; Siegal and Basta 1997; Ramsey 1988), more complex analyses have found that the effect of the GED is not significant and previous studies have overestimated the GED effect (Tyler and Kling 2003; Zgoba, Haugebrook and Jenkins 2008). The qualitative chapter of my thesis will explore why the GED earned in prison has not been found to significantly reduce recidivism in the more complex studies.

Employment Outcomes

Findings are also mixed with regard to the benefit of earning a GED in prison on post-release employment outcomes. Few studies have extensively examined large numbers of prisoners while simultaneously controlling for confounding variables. While simpler bivariate studies have found a correlation between prison GED attainment and employment outcomes (Jenkins, Pendry and Steurer 1995; Fabelo 2002), more complex studies that control for factors such as age, race, and motivation have shown that a GED effect may be spurious (Tyler and Kling 2003; Tyler and Kling 2006).

In a simple study that examined the post-release employment outcomes of inmates who had been through differing prison education programs, Jenkins, Pendry and Steurer (1995) found that educational attainment in prison is positively related to employment outcomes, type of employment, and wages. The authors studied 120 inmates, and found an association between increase in inmate education and better employment outcomes. While 70% of those who completed ABE programs were working post-release, 77% of those who received a GED in prison were working, and 100% of those who completed college in prison were working post-release. Additionally, the higher the inmate's educational attainment in prison, the higher their salary was likely to be. 88% of those who completed ABE programs earned over \$5 an hour post-release, while 93% of GED holders earned that amount, and 100% of those who had received a college degree in prison had jobs that paid over \$5 an hour. However, in this study there was no control group of prisoners who had not completed prison education programs. Post-prison differences may be due to pre-prison education, motivation, and background.

Fabelo's (2002) findings were similar to those of Jenkins, Pendry and Steurer (1995). The author studied 32,020 inmates and found that prisoners who earned a GED while incarcerated had an employment rate that was 7% higher than those who did not earn a prison GED (77% for GED recipients versus 72% for non-recipients). Additionally, GED recipients earned an average of \$958 per year more than non-recipients post-release. However, this study implemented no controls, and simply compared recidivism rates for different groups of offenders (by offense type, age, and GED completion status).

Tyler and Kling (2006) look at the relationship between GED and employment outcomes differently than previous studies (Fabelo 2002; Jenkins, Pendry and Steurer 1995). The authors first use a naïve analysis and later add controls for "basic characteristics" and time since prison release. In this study, Tyler and Kling (2006) find negligible differences between prisoners who obtain GED and incarcerated high school dropouts with no GED. The authors studied 24,764 males in Florida State prisons between October 1994 and 2000, 2,957 of whom obtained a GED in prison during that period, and 10,989 imprisoned high school dropouts who did not obtain a prison GED during that period. Coupled with information from the Florida Education and Training Program, this study arguably has the largest and richest data set of any other study on this subject.

The authors' "naïve estimate" first compares (post-release) all prison GED holders to all high school dropouts who leave prison without a GED. In the first year post-release, without controlling for any secondary variables, GED holders earn \$181 more per quarter than the non-GED group. This advantage rises to \$181 per quarter in the

second year post-release, and falls to \$109 in the third year. However, when "basic characteristics" such as age and education level are controlled for, the only statistically significant salary differences found between the GED and non-GED groups are for minority offenders in the first year post-release. Moreover, the authors found that those who had obtained GEDs in prison had an 8% greater probability of being employed in the second quarter after release than those who did not obtain a GED. However, after 12 quarters, this advantage declined to a 2% greater probability of being employed. The effect of earning a GED in prison is contingent on time since release from prison. No statistically significant difference was found between the post-release employment rates those who failed the GED test and those who passed. In summary, the salary benefit of the GED earned in prison only applies to minority offenders in the first year post-release, and the employment benefit of the GED is conditional upon time since prison-release.

Additionally, this study suggests that going through a GED education program – and not necessarily passing the test and obtaining the credential – has the greatest effect on employment outcomes. This may indicate that regardless of whether or not they pass the test, inmates are learning from the class and gaining skills. It is also important to assess why the GED makes such a small difference in employment rates and wages postrelease. The following section will explore possible theories as to why the benefits of correctional education may be limited.

Examining the Correctional Education Population

Disadvantaged, low skilled, uneducated young African American men are imprisoned at much greater rates than any other group in the United States population. In terms of education, state inmates in the U.S. have fewer than eleven years of schooling,

on average, meaning that the average state inmate did not graduate from high school (Western 2006:16). While 41.3% of incarcerated individuals are not high school graduates, only 18.4% of individuals who are not incarcerated have not graduated high school. The gap is even greater for college graduation rates; while 48.4% of the general population has attended college, only 12.7% of those who are incarcerated have attended college (Harlow 2003). After 1980, the gap in imprisonment rates between less educated African Americans and their college-educated counterparts grew drastically. By 2000, one third of all African American high school dropouts were imprisoned (Western 2006:18).

Additionally, incarcerated men are much less likely to have held jobs in the formal economy prior to incarceration. One third of imprisoned men were unemployed before entry to prison, and those who were employed earned less than their counterparts who had the same number of years of education. These individuals often have poor life chances to begin with: they have been brought up in areas of extreme social isolation, with few connections to legitimate job networks, a culture of violence, crime and illegal activity, poor public schooling and little chance for success in school. This leads to high dropout rates, increased police attention, and biased treatment from the judicial system (Western 2006:16). Instead of looking at the incarcerated population as a set of disparate individuals who have all committed crimes, it is important to explore the systematic imprisonment of individuals from specific social locations. In doing so, we can further understand the "pipeline to prison," which leads individuals from disadvantaged areas and with low levels of education to prison.

We must consider the societal reception of certain large groups of people (namely, poor African Americans) and the forces that perpetuate their incarceration. Especially when exploring prison education, it is important to remember that there are specific problems and issues uniquely concentrated amongst members of the prison population. First, the various institutions from which members of the incarcerated population have arisen are often subpar. Public schools in disadvantaged areas are often underfunded and poorly run (Wald and Losen 2003; Lee and Wong 2004). Similarly, correctional education in prisons is massively underfunded (Crayton and Neusteter 2008:25; Klein et al 2004; Stephan 1999). This sometimes leads to subpar programming and/or waiting lists that prisoners must remain on for long periods of time before being admitted into prison classes. Second, people who are at high risk of incarceration have a variety of other problems that compound their base of poor schooling. These problems include, but are not limited to, learning disabilities, behavioral problems, prolonged drug and alcohol use, and possible mental health problems. Thus, the potential success of correctional education programs is diminished.

While we often focus on the prison population as having low cognitive scores, it is crucial to recognize that the below-average test scores of those in the prison population have a multitude of causes. We may be able to improve the success of prison education programs by studying possible reasons why prisoners are chronic underachievers. It is important to study the causes of the low academic achievement of members of the prison population because doing so help us to improve the effectiveness of prison educational programming and learn how the disadvantaged backgrounds of America's prison population affect prison education.

Institutional Theories: Correctional Education is Underfunded and Understaffed

Correctional education has been notoriously underfunded and understaffed. Reports have shown that overall funding for prison educations programs has been reduced in the past decade (Crayton and Neusteter 2008:25; Klein et al 2004; Stephan 1999). It has been reported that only 6% of total U.S. state prison operating expenditure is spent on "prisoner programs," such as education and job training classes (Stephan 1999). Even though the correctional population has been steadily rising since 1980, the ratio of correctional education staff to prisoners has declined and the percentage of educational staff has remained constant (Crayton and Neusteter 2008:21). In 1990, 4.1% of the prison staff provided education, while that percentage fell to 3.2% in 2000 (Klein et al 2004:20). With limited funding and staff, the quality of prison education programs is diminished. GED education in prison may be devalued because prison education is underfunded and poorly run in some areas, limiting possible benefits that participants could reap.

A Bad Start: The School-To-Prison Pipeline

There is a clear correlation between African American high school dropouts and incarceration. On any given day in 2000, a third of African Americans who had not completed high school were incarcerated (Western 2006:18). In 1997, 68% of all state prisoners were high school dropouts (Sentencing Project, as cited by Wald and Losen 2003). Schools in areas of concentrated disadvantage⁵ have fewer resources, lower teaching quality, fewer advanced courses, and much higher dropout rates than schools in areas with more wealth (Brennan 2002, as cited by Wald and Losen 2003). Low-income

⁵ Areas of concentrated disadvantage are defined as areas with high rates of poverty and minorities.

youth are more than twice as likely as middle-income youth, and 10.5 times as likely as high-income youth, to become high school dropouts (CJJ 2001:2).

The lack of funding for public schools in disadvantaged areas, the necessity for teachers to teach a specific curriculum in preparation for a test, and the type of discipline used in these schools all contribute to high dropout rates. Those who drop out of high school are more likely to end up incarcerated. Public schools in ghetto areas serve as a weak starting point for the largely underclass minority youth. These children receive subpar schooling and often drop out of school before graduation. Poor schooling conditions perpetuate high dropout rates and the resulting incarceration of high school dropouts.

There is a pronounced lack of funding for public schools nationwide, especially in socioeconomically poor areas. From 1991-2001, the average annual per-pupil expenditures only increased by 1.1% (Lee and Wong 2004:809). Federal funds only make up 7% of revenue for K-12 education and state and local governments cover the rest (Wong and Shen 2002:1). This can be problematic for poorer districts, which generally have less total money in their budgets, and thus less money to put towards education. School districts in disadvantaged areas with more African Americans and Hispanics have been found to spend less money on education (Lee and Wong 2004:809). The lack of funding in schools means that the quality of the schools themselves and the materials used by students (e.g. books, computers, etc.) is subpar. Schools in poorer districts are often more decrepit, and materials can be dated and in poor condition. These schools tend to draw in the more inexperienced teachers and those who are poor at teaching, contributing to the diminished education that the students receive. Schools with less

funding will inevitably have less money to spend on special education programs, student counseling, and resources for students with unique needs (behavioral and otherwise). As a result, both the school environment and the children present in this poor school environment will suffer.

Additionally, state-led educational policies, coupled with No Child Left Behind, have put an emphasis on student achievement, stressing standardized test performance and grade-level benchmarks as indicators of both student and teacher performance (Wong and Shen 2002:4). As a result, teachers tend to "teach to the test"; they focus on teaching students a very defined curriculum in order to ensure higher test scores. The teachers can become frustrated because they are not teaching the material they feel is important, and the students can become disheartened by the routine and unimaginative curriculum being presented to them. Moreover, the students who fail to pass these tests are often held back year after year and fail to graduate (Wald and Losen 2003:9). As a result, some young adults can become frustrated with school, leading them to dislike school and ultimately drop out.

Other school policies, such as the Zero Tolerance policies used in some inner-city public schools, are rigid and suspend or expel students after only one disciplinary infraction (CJJ 2001:2). These types of policies send the most troubled and violent students (e.g. those who carried weapons into school, got into fights, took and/or sold drugs, etc.) out onto the streets, with no hope for graduation, greatly increasing their likelihood of incarceration. In minority-prevalent schools in the 100 largest cities in the United States, 58% of the students fail to graduate within four years (Balfantz 2003; as cited by Wald and Losen 2003:9-10).

Overall, the lack of funding and adequate resources, the mandate for teachers to teach a generic and streamlined curriculum, and the necessity for students to achieve certain scores on standardized tests lessen quality of education and serves as a catalyst for the dramatically low four-year graduation rates seen in high-minority areas. As youths, high school dropouts are over three times as likely to be arrested as their counterparts who graduate (CJJ 2001:2). The relationship between incarceration and high dropout rates (as a result of inadequate schooling, disabilities, school policies, etc.) is causal and cyclical. The most troubled young adults are the ones who perform poorly in school, drop out, and become incarcerated. The school-to-prison pipeline provides the context for the limited success of prison education programs. The poor schooling histories of many prisoners, as well as the problems endemic to the prison population that are discussed below, may limit possible benefits of the GED in the prison population.

Behavioral Theories: Learning Disabilities and Mental Health Problems

Around 70-87% of incarcerated youth have learning and/or emotional disabilities. Youth with learning disabilities drop out of school at twice the rate of those without learning disabilities, at a rate of around 35% (CJJ 2001:2). Learning disabilities and emotional problems are more concentrated among youth who drop out of school, and amongst incarcerated youth. At age 18, these youths turn into adults who form the base of America's prisons, made up largely of those who have no high school diploma, have behavioral problems, emotional problems, and learning disabilities. It comes as no surprise that the same problems these troubled youth were having in middle schools and high schools transfer over into the prison classrooms. Additionally, public schools in socioeconomically disadvantaged areas have set up a poor educational base off of which

prison classrooms must attempt to build. All of the aforementioned factors may serve to negate the potential benefits of correctional education programs.

Learning disabilities, mental health disorders, and emotional and behavioral problems are more prevalent in the prison population than in the general population. Often, these problems go undiagnosed and untreated in this subset of the population, making successful learning difficult. This is part of the reason that those who are incarcerated drop out of school – their undiagnosed/untreated issues limit their possibilities for success in school. Similarly, these same problems make successful learning in prison difficult for those whose needs have been ignored (Brazzell et. al 2009). Of the U.S. State prison inmates without a high school diploma or GED, 59% have a speech disability and 66% have a learning disability. While it has been reported that 17% of all prison inmates have learning disabilities (versus 6% of the general population), this number is likely an under-estimate due to undiagnosed learning disabilities (Greenberg et al. 2007; Leone, Wilson, and Krezmien 2008). Only 37% of state prison inmates do not report having a disability of some kind. Of those who have a mental condition, 41% dropped out of high school and/or did not receive a GED (Harlow 2003:9). These statistics illustrate the high prevalence of learning and mental disabilities in the prison population.

Studies on learning, mental, and behavioral disabilities in prisons often underestimate the prevalence of these issues, mainly because the issues go undiagnosed and unreported. Additionally, one third of all prison and jail inmates have a diagnosed mental health illness, and 24.4% have a co-occurring mental health illness and substance abuse problem (CASA 2010:3). Given this information, we can assume that there is a

high prevalence of learning disorders and mental health illness in prison classrooms. The high rates of learning and emotional problems found in prison classrooms make education difficult and create the same types of problems found in inner city high schools. Namely, students may have trouble focusing and learning and create disruptions in the classroom for other students. All of these factors reduce the efficacy of prison education programs and contribute to the problems currently seen in prison education classrooms. Just as learning disabilities and behavioral problems lead these men and women to drop out of high school, these same barriers limit the possible success of correctional education participants. Even if participants in prison GED programs with learning disabilities and behavioral issues ultimately earn a degree, these issues may impede their ability to become successfully employed and remain crime-free after prison release.

The Added Burden of Substance Abuse

Also contributing to the limited success of some prison education programs are the high rates of drug and alcohol problems found in the prison population. 65% of U.S. prison inmates are addicted to and/or abuse drugs or alcohol, according to the DSM-IV criteria. Additionally, 20% of prisoners are imprisoned for illicit substance-involved crimes, but are not technically classified as drug and alcohol abusers. Inmates (both prison and jail) are seven times more likely than members of the general population to have a drug or alcohol abuse disorder (CASA 2010). In a survey of jail inmates in the U.S. in 2002, it was reported that 39% spent a lot of time "using or getting over drugs and alcohol" and 30.8% gave up on activities of interest/importance because of drugs and alcohol (Karberg and James 2005:2).

It is likely that long-term drug and alcohol abuse negatively affects the capacity to learn and focus. It has been shown that substance abuse is associated with less efficient psychomotor processing and poorer verbal intellectual ability (Latvala et al. 2009). The high prevalence of drug and alcohol abusers in the incarcerated population, as well as the barriers that these individuals face, make it more difficult for them to successfully learn than it is for most members of the general population. Drug and alcohol dependency may limit the potential benefits of prison GED programs in two ways. First, long term substance abuse can lead to a limited capacity for learning. Second, once released, an exoffender with a substance abuse problem may be likely to use drugs and alcohol again, reducing possible GED benefits.

Overall, prison classrooms face unique barriers, including greater rates of students with higher rates of learning disabilities, mental health problems, behavioral problems, and long-term substance abuse issues than the general population. These factors can all partially explain why the successes of certain correctional education programs, such as GED programs, are limited. While the quantitative chapter (Chapter 3) will examine whether the prison GED improves literacy, the qualitative chapter (Chapter 4) delves into the impacts of the unique barriers that the prison population faces. The information I present in Chapter 4 will shed light on the problems that plague prisoners (such as learning disabilities, addiction, etc.) in a way that quantitative data and surveys cannot. In doing so, the link between the unique disadvantages faced by prisoners and the limited impact of prison GED programs will be made clear.

III. Quantitative Findings: National Assessment of Adult Literacy

I analyze both quantitative and qualitative data in order to study the effects of earning a GED in prison. The quantitative data I employ in this chapter is helpful in allowing me to examine the literacy scores of prisoners who have received a GED in prison versus prisoners who are high school dropouts without the degree. In Chapter 4, I use interviews to shed light on the quantitative findings of this chapter. The data set I use, the National Assessment of Adult Literacy (NAAL), does not record data regarding recidivism and employment history post-release. Given this, in my quantitative analysis I examine the relationship between literacy and the GED earned in prison. Studying literacy, rather than recidivism and employment outcomes, allows me to judge the capacity of GED programs to improve the skills of the prison population. The NAAL data allows me to study a larger sample of prisoners than I was able to examine in the interviews I conducted. Additionally, the data contains detailed information on literacy test scores and allows me to control for a rich list of demographic and behavioral variables.

The data I employ come from the NAAL, which aims to measure the English literacy of adults in the United States. The NAAL was first administered in 1992 and only collected information from "household samples." However, the second NAAL included both adults living in households (99 percent of the sample weighted) and a separate sample of adults housed in federal and state prisons (1 percent of the sample weighted). The literacy assessments and interviews were conducted on laptop computers with computer-assisted personal interviewing systems (CAPI) in households for the nonprison/household population and were conducted in prison classrooms and libraries for

the prison population. Each respondent had to answer a 35-minute background questionnaire followed by seven literacy tasks (DOE 2003).

The prison background questionnaire was meant to collect contextualizing data about the prisoners' backgrounds and experiences in prison. The NAAL aims to measure three main forms of literacy: prose, document, and quantitative. These dimensions of literacy are described in greater detail below. The prison population surveyed came from state and federal adult correctional facilities in Alaska, Connecticut, Delaware, Hawaii, Rhode Island and Vermont. 107 different prisons agreed to participate, and of the 1,298 randomly selected inmates from these prisons, 1,125 inmates completed at least one of the literacy measure scales. The prison sample had a final response rate of 87.2% (DOE 2003).

The National Assessment of Adult Literacy Survey data is a particularly unique and helpful quantitative data set because the majority of data from studies conducted in prison are sealed after the study has been completed. Because prisoners are considered a protected group, their privacy is stringently protected. Often, participation in prison studies is dependent upon the study data being sealed post-completion. Survey data involving prisoners is rarely made fully available to the public in its raw form. However, the NAAL prison sample is relatively large and is made available to the public.

In my analysis, I examine incarcerated high school dropouts who have obtained their GEDs in prison. By comparing the prisoners who entered prison as high school dropouts (with no high school diploma and no GED) to their incarcerated counterparts who have undergone various stages of GED education in prison, I form the most accurate and unbiased comparison. Incarcerated high school dropouts serve as the comparison

group to prison GED holders because I presume that they entered prison with similar levels of schooling and similar backgrounds. I can assume that if high school dropouts completed a GED in prison, then their literacy would be raised to the level of the GED group. I make this assumption because the two groups are similar in all other respects. It is possible that some of the discrepancy in literacy scores stems from the difference in motivation between the two groups; those who attempt the GED may be more motivated to change and learn than high school dropouts who do not attempt the degree. Thus, one could argue that *motivation* promotes increased literacy, not GED education. However, I control for motivation bias in the analysis by creating a variable for those who are on the waitlist to enter prison GED classes, and I find that motivation bias does not affect the results of my analysis.

I first divided the prison sample into three groups: prisoners who had earned a prison GED, prisoners who were currently enrolled in a GED education program, and prisoners who had earned a GED before incarceration. In my regression analyses, I control for current enrollment and GED prior to incarceration to ensure that I am only analyzing the GED effect on those who have successfully achieved the degree in prison.

I create an overall literacy score, which weights and combines the scores for the prose, quantitative and literacy scores. In my regression analyses, I control for possible confounding variables, such as age, race, learning disability, expulsion from school and/or incarceration, and motivation. After controlling for these confounding variables, I was able to examine the effects of a prison GED on literacy scores.

Theory and Hypothesis

I hypothesize that receiving a GED in prison will positively affect literacy as

measured by the 2003 NAAL. Taking GED classes and passing the GED exam in prison will improve prose literacy, document literacy, quantitative literacy and overall literacy scores. I expect that the effects of prison GED will be confounded by a number of variables, including: race, age, learning disabilities, schooling history and motivation. Not only are the confounding variables correlated with the probability of lower literacy scores, but they are also correlated with the probability of GED enrollment. Because the confounding variables are associated with both of these factors, we may mistake the effects of the confounders for the effect of GED enrollment, unless we control for them. For example, we may interpret a coefficient as showing the effects of GED enrollment, when in reality it means that high school dropouts have a high prevalence of learning disabilities and this causes their literacy rates to be low. However, if we control for learning disability then we can examine the literacy gap between incarcerated high school dropouts (the comparison group) and prisoners who earned a GED in prison without including those with learning disabilities. Thus, we must control for the confounding variables in order to most accurately assess the relationship between prison GED and literacy score.

It is important to control for race because we would expect African Americans to have lower test scores as well as lower rates of GED attainment. Due to a number of factors including poor school quality and challenging family environment, African Americans score lower than whites on academic tests from kindergarten to adulthood.⁶ On almost all standardized tests, the average black student scores below 75% of white students (Jencks and Phillips 1998). There is a similar disparity seen in the test scores of

⁶ Academic tests include vocabulary, reading, math, scholastic aptitude and intelligence tests (Jencks and Phillips 1998).

whites and Hispanics, with Hispanics scoring lower on academic tests than whites (Bali and Alvarez 2004). The huge disparity between the scores of black people and white people could be due to many factors, including, but not limited to: the income gap between whites and minorities in America, racial segregation, the poor quality of inner city schools with high concentrations of minorities, parenting, and lack of available resources (Jencks and Phillips 1998). In order to ensure that I am examining the effect of GED on literacy, and not the effect of race on literacy, I control for race by creating dummy variables for black respondents and Hispanic respondents.

I institute two controls for age: one for those who are under 25 and another for inmates over 40. I control for those who are under 25 because they are likely to have recently left school and may have retained more knowledge than their counterparts who are over 25. I control for age over 40 years old because the older subjects have likely been out of school for a long time (approximately 20 years) and could have lost a fair amount of literacy. Thus, controlling for age is important because significant age differences can affect literacy and GED scores and skew the results.

I control for learning disability because learning disabilities can significantly affect literacy test outcomes and can prevent one from successfully receiving a GED. As stated previously, 17% of all U.S. prison inmates have a learning disability and 66% of state prison inmates who are high school dropouts have a learning disability (Greenberg et al. 2007; Leone, Wilson, and Krezmien 2008). By limiting my analysis to subjects who do not have diagnosed learning disabilities, I can examine how the GED earned in prison affects literacy without including those whose scores and abilities may be limited by a learning disability. Although I attempt to control for learning disability, it is possible that

some subjects in the sample I examined did in fact have learning disabilities, because learning disabilities can go unnoticed and undiagnosed.

It is also important to take into account those who were forced to drop out of high school due to expulsion or incarceration. Because expulsion and incarceration are involuntary, members of this group did not "decide" to drop out of high school. I created the "expulsion/incarceration" control that includes those who were expelled from school or were incarcerated while in high school. This variable is helpful because it controls for those with possible behavioral problems, such as aggression and violence problems. While subjects who were forced to leave school are technically "high school dropouts," they are not representative of the larger high school dropout population and thus should be excluded from the analysis.

Lastly, in order to control for the possibility that GED takers are highly motivated, I created a "waitlist" variable that controls for those who are on the waiting list for academic programs in prison. Those who are on the waiting list are motivated to take academic classes (though they might not specifically be on the wait list for GED classes) but are unable to take classes due to a lack of space and/or resources in classrooms. By controlling for those who wish to take classes (and possibly prepare for and take the GED) we can control for motivation and get a clearer estimate of the effect of GED on literacy.

Prisons often reduce time served if inmates take classes while in prison, known as "good time." The concept of "good time" means that for each day or hour of class that a prisoner attends, a certain period of time is taken off of one's prison sentence. This may motivate many prisoners to take classes, such as GED classes, and may lead them to

ultimately take the GED test. Additionally, if one is only taking GED classes for the "good time" and puts minimal effort into the course, they may not achieve the full potential benefit of the course. This could possibly affect the literacy results seen in the "currently enrolled group." The literacy scores of those in the currently enrolled group could possibly be lowered by a lack of motivation to achieve the goal of the class, which is to obtain a GED. This could lead them to pay less attention in class and ultimately learn less than those who are more invested. There was no way to control for this in my analysis, and the following chapter will further address the effects of "good time." *The Effect of the GED on Literacy*

The NAAL survey consists of open-ended questions that call for short-answer responses. Matrix sampling⁷ was utilized. 152 total questions were created and assembled into 26 different booklets. Each respondent received one test booklet, containing a core screening section and three different blocks of tasks. Each of the three blocks found in a single booklet contained 7 to 11 tasks (questions) and 4 to 6 stimulus materials (the documents and/or prose to be examined). Each block was supposed to take approximately 15 minutes to complete, thus each examination booklet took approximately one hour to complete (DOE 2003).

The prose questions of the literacy examination required each respondent to complete a prose task that is applicable to real life, such as reading an editorial. The document portion required each subject to examine a document and perform a related task (e.g. complete a tax form). Lastly, the quantitative portion asked for respondents to perform arithmetic operations. The questions were all modeled after real life situations

⁷ Matrix sampling gives differing groups of questions to respondents to achieve more accurate test performance results.

and called for short answer responses to reduce possible error. Because responses are short answer, the probability that a respondent randomly chooses the right answer is reduced (DOE 2003).

Scoring for each section ranged from 0 to 500 possible points. The majority of responses are graded "correct/incorrect," however, some responses were awarded partial points if some information used in the answer was correct. Scoring rubrics were developed for each question to ensure quality control. The NAAL provided three different literacy scores (prose, document, quantitative) in the 2003 data set. I used the Stata command "std" to create a standardized score for quantitative literacy, prose literacy, and document literacy, respectively. I then created a final literacy score to measure overall literacy by adding together the scores for each part of the test and then standardizing that score with the command "std." The "std" command standardizes the literacy scores to have a mean of 0 and a standard deviation of 1. Creating an overall literacy score allows us to assess the overall literacy of each respondent in order to more accurately assess how the GED affects overall literacy (DOE 2003).

To begin the analysis, I examine how the prison population differs from the nonprison population (the general population) in terms of literacy scores. As seen in Table 1, non-prison subjects on average have higher quantitative, prose, document and overall literacy scores than those of the prison sample. This table serves to show the differences in scores between the prison and non-prison samples, and to illustrate the lower levels of literacy that are generally seen in the prison population. The greatest raw difference in scores was seen in quantitative literacy (.967), while the smallest difference was seen in

prose literacy (.647). Document scores for the non-prison population were, on average,

.711 standard deviations higher than the prison population.

L	1	
	Prison	Non-Prison
Quantitative	0.282	1.249
	(3.010)	(3.934)
Prose	0.621	1.268
	(3.304)	(3.989)
Document	0.821	1.532
	(3.668)	(4.327)
Overall Literacy	-0.269	0.018
	(.817)	(1.009)
(\mathbf{N})	1 1 56	18 102

Table 1. Descriptive Statistics of Dependent Variables.

Note: Numbers in parentheses are standard errors. Each outcome has been standardized to have a mean of 0 and a standard deviation of 1.

Source: 2003 National Assessment of Adult Literacy

In order to assess the effect of earning a GED in prison on literacy scores, I compare the literacy of incarcerated high school dropouts to the literacy of incarcerated high school dropouts who earned a GED in prison. In order exclude from my analysis all other groups of prisoners (besides those earned a prison GED and those who have no prison GED) I create four different groups of prisoners who have undergone various levels of GED schooling. The first group, the "Prison GED" group, consists of inmates who earned a GED while incarcerated. The second group, the "Prior GED" group, is comprised of individuals who entered prison with a GED. The third group, the "Currently Enrolled" group, includes prisoners who are currently enrolled in academic classes. Lastly, a fourth group ("No GED and Not Currently Enrolled") is comprised of prisoners who have no GED and are not currently enrolled in academic classes. In my analysis, I

compare the first group ("Prison GED") to the fourth group ("No GED and Not Currently Enrolled"), and control for the other two groups.

As seen in Table 2, 42.13% of the prison sample (N=1,156) entered prison with a GED, 18.69% earned a GED in prison, 4.84% are currently enrolled in an academic class, and 34.34% have no GED and are not currently enrolled in academic classes. Without controlling for possible confounding variables, overall literacy of the group who earned a GED in prison is highest, followed by those who entered prison with a GED. Those who are currently enrolled in academic classes have the lowest average overall literacy scores, while those currently enrolled have average slightly higher literacy scores than the enrolled group. The scores of the "No GED and Not Currently Enrolled" group are lower than those of the GED and Prison GED groups. The same trend of highest scores belonging to the Prison GED group, second highest scores found in the GED group, third highest scores found in the "No GED and Not Currently Enrolled" group and lowest scores found in the Enrolled group is mirrored in the quantitative, prose and document literacy scores.

	Table 2. Telecht Distribution and Mean Elfendey by GED Status.					
			No GED and			
	Prison GED	Prior GED	Not Currently	Enrolled	Total	
			Enrolled			
Quantitative	.604	.263	.19	207		
Prose	.859	.803	.352	144		
Document	1.08	.999	.541	.227		
Overall Literacy	154	222	374	451		
% Distribution	18.7	42.1	34.3	4.8	100	
(N)	216	487	397	56	1,156	

Table 2. Percent Distribution and Mean Literacy by GED Status.

Note: Each outcome has been standardized to have a mean of 0 and a standard deviation of 1. *Source:* 2003 National Assessment of Adult Literacy

A simple comparison of quantitative, prose, document and overall literacy scores show a correlation between the GED and literacy scores. However, the results found in Table 2 do not control for possible confounding variables. We cannot infer that the GED (both the GED earned in prison and outside of prison) is correlated with higher literacy scores because these results do not include controls for possible confounding variables. Thus, in order to assess the causal effect of obtaining a GED on literacy scores more accurately, I fit a series of regression models that control for variables that could affect literacy.

Predictors of Literacy

To account for confounding bias I construct a number of variables that are likely associated with both GED participation and literacy. These include race, age, learning disability, and schooling history (see Table 3). To control for race, I generate a variable for black people and another for Hispanic people. I create the dichotomous "black" variable, coded as 1 if the subject is black, 0 otherwise. I create a "Hispanic" variable, coded as 1 if the subject is Hispanic, 0 otherwise. To control for age, I create a dichotomous "under 25" variable, coded as 1 if the subject of variable, coded as 1 if the subject is ender 25. Additionally, I create an "over 40" variable, coded as 1 if the subject is over 40, 0 otherwise. To control for past expulsion from school and incarceration, I include a dichotomous variable (expulsion or incarceration), coded as 1 if a subject dropped out of school due to expulsion/incarceration, 0 otherwise. Finally, to control for learning disability, I include a dichotomous variable (learning disability), coded as 1 if a subject has a learning disability, and 0 if they do not.

Table 3 shows some differences between the prison population and the general population. While 42.5% of the prison sample is black, only 19.1% of the non-prison sample is black. A significant percentage of the prison sample has a self-reported learning disability (16.67%), while only 5.51% of the non-prison population reported having a learning disability. The differences between being expelled from school and/or having to leave school for incarceration were even larger. While 19.22% of the prison sample was expelled from school and/or incarcerated while attending school, only .77% of the non-prison sample fell into the expulsion/incarceration category.

Table 3. Means of predictors, prison and non-prison sample.

	Prison	Non-Prison
Black (%)	42.5	19.1
Hispanic (%)	18.9	17.1
Under 25 (%)	14.7	16.4
Over 40 (%)	34.9	54.5
Learning Disability (%)	16.67	5.51
Expulsion/Incarceration (%)	19.22	0.77
<u>(N)</u>	1,156	18,102

Source: 2003 National Assessment of Adult Literacy

To illustrate the low level of literacy in the prison population, Table 4 compares quantitative, prose, and document scores for prisoners and non-prisoners for each of the subgroups formed by my predictors (race, age, learning disability, and expulsion/incarceration). I control for the variables associated with poor academic performance. The variables correlated with poor academic performance and are more highly concentrated in prison than they are in the general population. Overall, this table shows that while groups with poor academic performance (such as African Americans, Hispanics and those with learning disabilities) are more concentrated in prison than in the general population, even in these subgroups prisoners perform atypically lower academically than their counterparts in the general population.

Quantitative scores are lower in the prison population for all of the predictors.⁸ The smallest difference between the quantitative scores of prisoners and non-prisoners was seen in the expulsion/incarceration group (those who had to leave school due to either expulsion or incarceration). Prose scores were lower in the prison group than in the non-prison group for blacks, Hispanics, those under 25, those over 40, and those with a learning disability. However, prose scores for those who had been expelled/incarcerated during high school were actually lower in the non-prison sample. This means that current prisoners who were expelled/incarcerated have higher average prose literacy scores than their counterparts in the general population. The document scores of the non-prison sample counterparts. However, incarcerated Hispanics, prisoners with learning disabilities, and prisoners who were expelled/incarcerated during high school actually have higher average document literacy scores than their counterparts in the general population.

The overall literacy scores of non-prison blacks, non-prison subjects under 25, non-prison subjects over 40, and non-prisoners with learning disabilities are all higher than their incarcerated counterparts in the prison sample. However, Hispanics in the prison sample have higher overall literacy scores than their non-prison counterparts, as is the case for those in the expulsion/incarceration group. For all literacy scores besides document literacy, prisoners with learning disabilities score lower than non-prisoners

⁸ The predictors include race, age, learning disability, expulsion, and incarceration.

with learning disabilities. Additionally, all black prisoners score lower on the four measures of literacy than their counterparts in the general population. In the majority of the subgroups that have the lowest academic performance, prisoners are less literate than their counterparts in the general population.

	Prison	Non-Prison
Quantitative Score		
Black	095	.233
Hispanic	.747	1.05
Under 25	.132	.699
Over 40	.158	1.325
Learning Disal	oility184	.293
Expulsion/Inca	rceration .126	.194
Prose Score		
Black	.493	.672
Hispanic	.781	1.086
Under 25	.429	.891
Over 40	.475	1.284
Learning Disat	oility .51	.588
Expulsion/Inca	arceration .332	.149
Document Score		
Black	.516	.616
Hispanic	.85	.745
Under 25	1.01	1.29
Over 40	.704	1.459
Learning Disat	oility .856	.572
Expulsion/Inca	arceration .815	.432
Overall Literacy Score		
Black	349	285
Hispanic	129	231
Under 25	279	116
Over 40	321	.015
Learning Disat	oility352	261
Expulsion/Inca	324	363
(N)	1,156	18,102

Table 4. Descriptive Statistics for Predictors of Literacy.

Note: Each outcome has been standardized to have a mean of 0 and a standard deviation of 1. *Source:* 2003 National Assessment of Adult Literacy

Modeling the Effects of the GED

In order to assess the impact of the GED on literacy scores, I fit a series of regression models for each literacy score. In all models, the comparison group is incarcerated high school dropouts. In the first model, I control for those who are enrolled in academic classes in prison and inmates who entered prison with a GED. By controlling for pre-prison GED and current enrollment in academic classes, I ensure that the comparison group is comprised solely of high school dropout prisoners without GEDs who are not currently enrolled in classes. In the second model I control for age (under 25 and over 40) and race (black and Hispanic). The third model institutes additional controls for learning disability and having to leave school due to expulsion or incarceration. The fourth and final model controls for subjects who are on the waitlist, reducing motivation and selection bias. I ran each of the four regression models for all of the literacy scores – prose, document, quantitative, and overall literacy.

Regression Results

There is a positive and statistically significant relationship between quantitative literacy and the GED earned in prison once controls are instituted, significant at a 10% confidence level. Table 5 reports the regression results for the effect of obtaining a prison GED on quantitative literacy scores. Model 1 shows the raw differences in quantitative literacy scores without controlling for other variables. There is no evidence to suggest that there is a statistically significant difference between the quantitative literacy scores of those with a GED obtained in prison and incarcerated high school dropouts when I do not control for other variables. In Model 2, I add in controls for age and race, and find no significant changes (Table 5, Model 2). Controls for learning disability and school

expulsion or incarceration in Model 3 reveal that respondents who have completed a prison GED score about three-sevenths of a standard deviation higher than other prisoners who are high school dropouts, significant at a 10% confidence level (Table 5, Model 3). After controlling for motivation in the final model, the relationship between completion of a prison GED and quantitative literacy is positive and statistically significant at a 10% a confidence level, leaving the results of Model 3 unchanged.

Explanatory Variable	Model 1	Model 2	Model 3	Model 4
Prison GED	0.413	0.401	0.431+	.434 +
	(.259)	(.260)	(.259)	(.262)
Enrolled	-0.397	-0.357	-0.34	328
	(.439)	(.437)	(.436)	(.441)
GED	0.0723	0.094	0.056	.062
	(.209)	(.216)	(.218)	(.221)
Under 25		-0.239	-0.204	-0.209
		(.268)	(.272)	(.273)
Over 40		-0.227	-0.276	276
		(.200)	(.199)	(.200)
Black		-0.543**	-0.62**	626**
		(.201)	(.202)	(.203)
Hispanic		0.308	0.255	.246
		(.265)	(.265)	(.266)
Learning Disability			-0.632*	-0.624*
			(.250)	(.251)
Expulsion/Incarceration			-0.146	146
			(.235)	(.235)
Waitlist				0.066
				(.241)
(N)	1,111	1,111	1,107	1,104

Table 5. Regression Results for Quantitative Score.

+p<.1, *p<.05, **p<0.01, ***p<0.001

Note: Numbers in parentheses are standard errors. Each outcome has been standardized to have a mean of 0 and a standard deviation of 1.

Source: 2003 National Assessment of Adult Literacy

The effect of having a prison GED on prose literacy is positive and significant at a 10% confidence level, and this effect remains largely unchanged after controls are instituted. Table 6 shows the regression results for the effects of completing a prison GED on prose literacy. In a simple model that includes none of the control variables, obtaining a prison GED is associated with a half standard deviation increase in prose literacy score (at a 10% confidence level).

Explanatory Variable	Model 1	Model 2	Model 3	Model 4
Prison GED	.508+	.509+	.544+	.514+
	(.285)	(.287)	(.288)	(.291)
Enrolled	496	485	499	551
	(.481)	(.483)	(.484)	(.489)
GED	.451+	.495*	.483*	.452+
	(.231)	(.239)	(.242)	(.245)
Under 25		247	166	166
		(.294)	(.300)	(.301)
Over 40		-0.323	351	364
		(.221)	(.222)	(.223)
Black		104	113	117
		(.222)	(.224)	(.225)
Hispanic		.239	.250	.250
		(.295)	(.297)	(.298)
Learning Disability			108	106
			(.274)	(.276)
Expulsion/Incarceration			323	333
			(.260)	(.260)
Waitlist				195
				(.269)
(N)	1,102	1,102	1,098	1,095

 Table 6. Regression Results for Prose Score.

+p<.1, *p<.05, **p<0.01, ***p<0.001

Note: Numbers in parentheses are standard errors. Each outcome has been standardized to have a mean of 0 and a standard deviation of 1.

Source: 2003 National Assessment of Adult Literacy

Controlling for age and race leaves the effect of completion of a prison GED on prose literacy scores unchanged and slightly increases the significance of the positive effect of entering prison with a GED on prose literacy scores (Table 6, Model 2). Further controls for learning disability and previous expulsion or incarceration leave the GED effects unchanged (Table 6, Model 3). Finally, in Model 4, the effect of the prison GED on prose score is positive and statistically significant at a 10% confidence level.

While the prison GED effect on prose literacy is strengthened with the addition of controls, the relationship between document literacy and the GED earned in prison remains positive and significant through each of the four models. Table 7 reports the regression results for the effects of a prison GED on prose literacy score. Again, we see that with no controls (Table 7, Model 1), respondents who have completed a prison GED score approximately half of a standard deviation higher than incarcerated high school dropouts on the prose literacy test at the 10% confidence level. After controlling for age and race, we see that the prison GED loses its statistical significance. Further controls for learning disability, expulsion, and incarceration are consistent with the results of Model 1, showing that prison GED recipients have an average prose literacy score that is approximately half of a standard deviation higher than that of high school dropouts in prison, at a 10% confidence level (Table 7, Model 3). Finally, controlling for motivation leaves the GED effect unchanged.

The effect of the GED obtained in prison on overall literacy is positive and statistically significant, in keeping with the results of the previous regression analyses. Table 8 shows the regression results for the effects of a prison GED on overall literacy. The first column shows the raw differences in literacy scores, with no controls.

0				
Explanatory Variable	Model 1	Model 2	Model 3	Model 4
Prison GED	.539+	.513	.567+	.575+
	(.311)	(.313)	(.314)	(.316)
Enrolled	-0.313	310	260	232
	(.524)	(.525)	(.524)	(.529)
GED	.458+	.438+	.498 +	.510 +
	(.249)	(.258)	(.261)	(.265)
Under 25		.253	.278	.270
		(.322)	(.327)	(.328)
Over 40		167	173	172
		(.240)	(.240)	(.241)
Black		548*	579 *	-0.587*
		(.243)	(.244)	(.245)
Hispanic		160	137	154
		(.316)	(.317)	(.318)
Learning Disability			.035	.053
			(.295)	(.296)
Expulsion/Incarceration			.023	.024
			(.282)	(.283)
Waitlist				.138
				(.290)
(N)	1,147	1,147	1,143	1,140
+n < 1 *n < 05 **n < 0.01 ***n < 0.01 **	0.001			

 Table 7. Regression Results for Document Score.

+p<.1, *p<.05, **p<0.01, ***p<0.001

Note: Numbers in parentheses are standard errors. Each outcome has been standardized to have a mean of 0 and a standard deviation of 1.

Source: 2003 National Assessment of Adult Literacy

Respondents who have completed a prison GED score about a fifth of a standard deviation higher than other prisoners who have not completed high school. This predicted level of literacy slightly exceeds that predicted for prisoners who completed high school or received a GED prior to prison (Table 8, Model 1). Controlling for age and race leaves the prison GED effect unchanged (Table 8, Model 2). Further controls for diagnosed learning disability and school expulsion or incarceration also have little effect on the prison GED coefficient. Finally, we control for the respondent's motivation. In this final

model, the prison GED effect is also positive and statistically significant. In sum, these results are consistent with the hypothesis that a prison GED raises overall literacy. The positive effect estimated here seems unlikely to be entirely due to selection, given the robustness of the estimate and the relatively high literacy score compared to those who are enrolled in GED classes but have not yet received their GED.

Explanatory Variable	Model 1	Model 2	Model 3	Model 4
Prison GED	.220**	.21 **	.226***	.224**
	(.071)	(.071)	(.071)	(.071)
Enrolled	077	076	069	070
	(.120)	(.120)	(.119)	(.120)
GED	.152**	.152 **	.151*	.150*
	(.057)	(.059)	(.059)	(.060)
Under 25		021	004	006
		(.073)	(.074)	(.074)
Over 40		097+	108*	110*
		(.055)	(.054)	(.055)
Black		124 *	140*	142**
		(.055)	(.055)	(.055)
Hispanic		.008	.004	.001
		(.073)	(.073)	(.073)
Learning Disability			108	-0.105
			(.068)	(0.068)
Expulsion/Incarceration			056	057
			(.064)	(.064)
Waitlist				.005
				(.066)
(N)	1,089	1,089	1,085	1,082

Table 8. Regression Results for Overall Literacy Score

+p<.1, *p<.05, **p<0.01, ***p<0.001

Note: Numbers in parentheses are standard errors. Each outcome has been standardized to have a mean of 0 and a standard deviation of 1.

Source: 2003 National Assessment of Adult Literacy

I interpret the magnitude of the Prison GED coefficient for overall literacy (.224;

Table 8, Model 4) by calculating the effect on literacy if all incarcerated high school

dropouts earned a GED in prison. Obtaining a GED in prison can significantly close the existing gap of .315 standard deviations between the literacy scores of high school dropouts and the general population. My model suggests that earning a prison GED increases literacy score by .224 standard deviations (Table 8), which is over two-thirds (71.1%) of the existing gap. This was calculated by dividing the Prison GED coefficient (Table 8, Model 4) of .224 by .315, which gave me .711.

Biases and Limitations

While these results suggest that completing GED classes and receiving a GED in prison raises overall literacy scores of prison GED completers (when compared to the scores of incarcerated high school dropouts), there are a number of potential biases that could exist with this data set and the methodology used. First, I do not know how many inmates completed GED classes and failed to pass the GED test. Potentially, a very large number of inmates could have taken GED classes, improved their literacy slightly, and failed the test. In this case, my model under-estimates the effect of a GED because those in the comparison group received some GED preparation.

It is also possible that this data is skewed by selection bias. The inmates who are most motivated and willing to reform may choose to enter GED programs and work hard to obtain their GEDs in prison in hopes that it will help them post-release. Additionally, they may take GED classes to receive "good time" to shorten their prison sentence. It is certainly possible that those who choose to enter prison GED education programs are inherently different than the general population of prisoners (in terms of motivation, etc.), and these qualities are causing increased levels of literacy, not necessarily the educational programs themselves. I attempt to address this by creating a variable to control for

motivation (those who were on the waiting list to enter prison education programs). As previously stated, the positive effect between GED and literacy score does not seem to be entirely due to selection, given the high literacy scores of those who received their GED compared to those who are enrolled in classes but have not yet received their GED, and due to the robustness of the estimate. However, further research needs to be done in order to convincingly test this.

Additionally, though the data is supposed to be representative of the larger sample of all federal and state prisoners in the United States, it may not be. The sample included data from 107 different prisons in 30 states, including 12 federal prisons. The states and prisons that were left out of the analysis may have changed the data in some way. Also, in order to minimize participant burden, the NAAL does not include all of the assessment items for each participant. They purposely create missing values so that subjects cannot be identified; this is important especially when allowing the public to use data with prisoner subjects. I used dummy variables to minimize the effect of the missing variables.

It is important to keep in mind that the NAAL background survey may contain response bias, and this could slightly affect the data. For example, I tried to control for learning disabilities, but it is possible that subjects chose not to report their learning disabilities or have undiagnosed learning disabilities. The respondents may have chosen to skip over certain questions, creating missing data values. It is also possible that the subjects decided not to give their full effort on the literacy test component of the NAAL survey. The results of the NAAL literacy survey may not be completely accurate due to a lack of consistent effort on the part of the subjects. However, we can assume in this

analysis that the effect of those who did not give their full effort on the literacy test is counterbalanced by the effect of others who gave full effort.

Lastly, it is important to consider whether or not the NAAL survey is a valid measure of literacy. Were the questions straightforward and asked in a fair and unbiased way? Does the scoring accurately reflect the literacy levels of the respondents? I believe that the NAAL survey is well designed, and flaws in the design were fixed and updated since the first wave of the survey in 1992. Those who scored the answers to the openended literacy questions were trained and followed a standardized scoring rubric. Also, half of the answers are scored by two scorers to ensure reliable and consistent grading. Given this, we can assume that the survey is a valid and reliable measure of literacy. *Discussion*

These results are consistent with my hypothesis that earning GED in prison improves overall literacy, when the literacy scores of those with a prison GED are compared those of incarcerated high school dropouts without a prison GED. The average literacy score for a high school dropout in prison is -.297, and on average the literacy score of a high school dropout with a prison GED is .220 higher (with no controls; .224 in the final model with controls). The effect of a prison GED on literacy is consistently positive and statistically significant. The prison GED predicts an increase in overall literacy score, even after controlling for age, race, learning disability, expulsion from high school/incarceration, and motivation. The estimates indicate that a prison GED would close the literacy gap between the general population and the prison population of high school dropouts by over two-thirds (71%). Additionally, those who completed GED classes and received a GED in prison have higher overall literacy scores than those who

are currently enrolled in GED classes and have not earned a GED. These findings suggest that obtaining a GED in prison improves overall inmate literacy.

Since the effects of a prison GED on literacy do not change much across the regression models even after controlling for possible confounding variables (age, race, learning disability, expulsion, and incarceration), there is minimal confounding bias. Consequently, the positive prison GED effect is stable across models, even when additional predictors are added. Estimates in the simpler models don't appear greatly confounded.

We would assume that those who go through GED education classes in prison and receive their GED would benefit from an increased level of literacy and this would positively affect them in other spheres of their lives. For example, we would expect that prisoners who earned their GEDs and achieved higher levels of literacy would have an easier time becoming employed post-incarceration, have higher salaries, and experience decreased recidivism rates. However, studies have found that the earning of a GED in prison does not significantly affect reoffense and recidivism rates (Fabelo 2002; Zgoba, Haugebrook, and Jenkins 2008; Tyler and Kling 2003). Additionally, post-release earnings differences between GED passers and those who failed are not significantly different. And, while those who had earned GEDs in prison had an 8% greater chance of being employed in the second quarter post-incarceration, this advantage declined to a 2% greater chance of employment in the twelfth quarter after incarceration (Tyler and Kling 2003). So, while those who receive GEDs in prison are learning and becoming more literate, studies have found that the GED earned in prison is not associated with significant employment, salary, reoffense, and recidivism differences. Thus, it would be

logical to conclude that the problem is that improved literacy may not be sufficient to reduce recidivism and improve employment outcomes for those with prison records. The next chapter will qualitatively evaluate possible barriers to a successful life after prison which are unaffected by a GED or an increased level of literacy.

My results are important because they show a positive and statistically significant effect of earning a prison GED on literacy. The effects of obtaining a prison GED in general are under-examined, and my results are some of the first to associate the earning of a GED in prison with higher literacy scores. It is crucial to further examine my findings, because if earning a prison GED improves literacy, then there are clearly other factors besides literacy that more strongly affect post-incarceration employment and recidivism outcomes. In the following chapter, I use interviews with prisoners in various stages of the GED education process to further explain my quantitative results. These interviews are important in understanding prisoners' motivations for attempting to obtain a GED in prison, as well as in identifying some possible barriers to successful employment and a crime-free life post-incarceration.

IV. Qualitative Findings: Plymouth County Correctional Facility

The following chapter aims to better understand the characteristics of incarcerated men in the United States who take GED classes and the actual experience of educational programming in prison. Through the interviews I conducted at Plymouth County Correctional Facility, I attempt to uncover the inmates' reasons for taking GED classes and the factors that may have inspired this decision. Qualitative data is helpful because it captures the nuanced and complex responses of the subjects in a way which quantitative data cannot. The interviews I conducted complement the statistical analysis of the previous chapter. The following chapter will answer the question: what are inmates' motivations for taking the GED and what drives these motivations?

Plymouth County Correctional Facility and the PCCF GED Program

After getting approval from Harvard's Institutional Review Board (IRB), I was able to conduct my interviews at Plymouth County Correctional Facility (PCCF). PCCF is an all-male correctional facility that holds approximately 1,500 inmates over the age of 18 years old of various security levels, ranging from medium to maximum. PCCF houses both county inmates and federal inmates who are awaiting trial. The facility is unique compared to other prisons in that it is composed of separate self-sustaining units. The prisoners do not leave their units (with some exceptions, such as to travel to the medical unit, take certain classes, perform jobs, etc.), and remain there to eat, shower, sleep, and attend classes.

On my first day of interviews at Plymouth County Correctional Facility, I was given a tour of the facility, including the Administrative Segregation Unit, Protective Custody unit, the Maximum Security unit, general population units, and two special units,

SAVE and the Substance Abuse and Recovery Unit (FS1). SAVE is the Sheriff's Anti-Violence Effort, which houses inmates with a history of violent offenses or anger management problems. FS1 houses inmates who have a history of substance abuse and/or were arrested for incidents involving drugs and alcohol. Both of these units have 62 beds and house inmates for only 120 days, after which point the participating inmate will have "graduated" from the given unit. A number of inmates I interviewed had been through both the SAVE and FS1 units. These units have many daily classes and groups, such as Alcoholics Anonymous/Narcotics Anonymous, group therapy classes, anger management classes, and victim impact panels.

I was also given a tour of the Administrative Segregation Unit, which houses high security inmates who remain in their cells for 23 hours a day and are not allowed the same privileges as prisoners in the general population. In sum, PCCF houses all different types of inmates of different security levels. However, prisoners in the Administrative Segregation and Protective Custody units are not allowed to take prison education (including GED) classes.

In order to take GED classes at PCCF, an inmate must take the TABE (Test of Adult Basic Education) and then write to the Education Coordinator requesting entry into a GED class. Based on the results of the TABE, inmates are usually placed either in GED or pre-GED classes. GED classes at PCCF are offered on a four-month rotating basis, and meet five times a week for an hour per class. The classes usually contain ten to thirteen students, which allows the teacher to give each student more individualized attention. In order to earn "good time" (time off of one's sentence) inmates must attend over 75% of the class meetings. For each month that they remain in the class with a 75% or greater

attendance rate, they receive 2.5 days off of their sentence. The Head of Prison Programming told me that there is sometimes a waiting list for entry into GED classes, and although the wait varies, it is usually no longer than a few months. As of January 2011, there was no waiting list to take GED classes at PCCF. If an inmate gets in trouble and is moved to Administrated Segregation for disciplinary reasons, also known as being "lugged," they are immediately dropped from the GED class. As a result, they will be unable to take the test in that round and must wait 30 days to reapply. In fact, one of the subjects I was set to interview was lugged the day before our scheduled interview.

Chart 1 shows the total number of inmates who took the test and the pass/fail rates. Since 2007, the number of inmates who have taken the GED has risen (with a slight dip in 2009). In 2010, 62.2% passed the GED and 37.8% failed the test. The percentage of inmates who passed fell very slightly in 2011; of the 87 inmates who took the GED test, almost 60% passed and 40.2% failed. Rates of inmates who pass the GED at PCCF are much higher than the national average. The Bureau of Justice Statistics reports that 7 out of 10 federal and state inmates who obtained the GED did so while incarcerated (BJS 2003). On average, 75% of state, federal, local, and juvenile test takers pass the GED. Of those four groups, rates are lowest for federal test takers, who have a pass rate of just below 70% (ACE 2011). The PCCF pass rates are slightly below the pass rates reported by the American Center for Education.

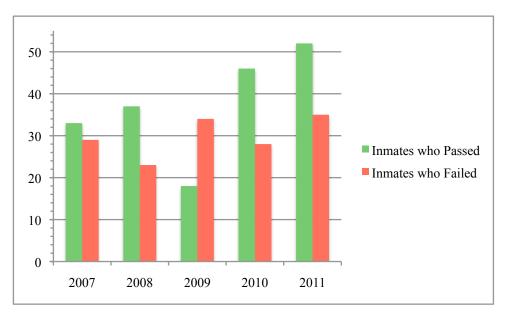


Chart 1. Plymouth County Correctional Facility GED Statistics.

Recruiting Subjects

My aim was to conduct interviews with inmates who were in various stages of the GED education process. I wanted to interview some inmates who had just started taking classes, some inmates who had completed classes and failed the GED, and some inmates who had taken classes and passed the GED. I sought a diverse group of opinions. By interviewing inmates who did not yet have their GED, I was able to ask them how they thought the GED would help them after they obtained the certificate. I was also able to ask those who had already been through the class and obtained their GED if the certificate had changed their prison experience at all and how they thought it would help them post-release.

In order to get a diverse sample of subjects who were also representative of the larger prison population, I reached potential interviewees in three different ways. Because

I was working with the prison population, I myself was not allowed to recruit subjects. Rather, I passed on my recruiting script and information form to the Director of Programming at PCCF, Mr. Paul Chiano. Both the recruiting script and the interview information sheet assured participants that participation was not mandatory or connected to their status in the prison. Mr. Chiano then disseminated these recruiting items to the SAVE unit and the FS1 unit, whose administrators read the recruiting scripts aloud in their units. The recruiting script can be found in the Appendix B. The administrators in those units then asked those who were interested to come forth to discuss the matter further. The exact number of men enrolled in GED classes in the SAVE and FS1 Units is unknown. One inmate volunteered from the SAVE unit (8.33% of the total sample of twelve inmates). Seven inmates from the FS1 unit volunteered, constituting 58.33% of the twelve-person sample group. The number of participants by unit can be found in Table 10.

In addition to recruiting in the FS1 and SAVE Units, the third way I found subjects was by sitting in on a GED class with Mr. Chiano and recruiting subjects after the class period. Once the hour-long class ended, Mr. Chiano read the recruiting script out loud and asked those who wanted to volunteer to speak to him before going back to their units. Out of the six people in the GED class, four volunteered to be interviewed. After explaining again that their participation was voluntary and would in no way affect their position in the GED class and/or their status in the prison, Mr. Chiano scheduled their interviews. Thus, I recruited interview subjects from three possible pools: the FS1 unit, the SAVE unit, and a GED class.

Participant Demographics

By the end of 2010, 1,492,330 prisoners were under state or federal jurisdiction. The estimated mean expected time to be served for all U.S. prisoners is 2.1 years. 196,222 were federal prisoners and 1,296,108 were state prisoners. The majority of incarcerated GED test takers (87%) are male (DOJ 2011). In order to further examine the demographic make-up of my interview pool and how it compares to the national pool of prisoners, I compare the characteristics of my interview participants to the demographics of all U.S. prisoners. Table 9 lists the descriptive characteristics of the twelve interview participants.

Characteristic	Number of Participants	Percentage of Participants
Age		
18-30	3	25
31-43	6	50
44-56	3	25
Race		
Black	3	25
White	4	33.33
Hispanic	5	41.67
Education		
Less than high school	1	8.33
Some high school	11	91.67
Unit		
SAVE	1	8.33
FS1	7	58.33
General Population	4	33.33

Table 9. Descriptive characteristics of interview participants.

The mean age of my interview participants is 35.5 years old, while the median of my interview participants is 34 years old. The average age of federal and state prisoners in the U.S. is 39 years old (BOP 2012), and the average age of incarcerated GED testers is 30 years old (ACE 2011). One quarter (25%) of my interview participants are 18-30 years old. Half of my participants (50%) are 31-43 years old, and one quarter (25%) are 44-56 years old. In the U.S. prison population, 34.32% of prisoners are 18-29 years old, 39.98% are between 30 and 44 years old, and 13.87% are between 45 and 54 years old (Guerino, Harrison, and Sabol 2011).

Of all sentenced male federal and state prisoners in the U.S., 38.8% (558,700) are non-Hispanic black, 31.2% (449,400) are non-Hispanic white, and 22.6% (325,700) are Hispanic (Guerino, Harrison, and Sabol 2011). The population of incarcerated GED test takers in the U.S. is 40% black, 37% white, and 19% Hispanic (ACE 2010). My sample consists of 25% blacks, 33% whites, and 41.7% Hispanics. My sample consists of a higher percentage of Hispanics than the average and a lower percentage of blacks.

My entire sample consisted of high school dropouts, because this group of men has the choice to take the GED in prison. Men who have graduated high school do not take the GED test, because they already have high school diplomas. Thus, in order to learn more about the effects of the GED and the motivations behind taking the class/test, it was important to only interview men who had dropped out of high school. One of my subjects dropped out of school after completing the 8th grade (8.3% of my sample). The rest, 91.7%, completed some high school but did not graduate. In the population of all state prisoners, 14.2% completed 8th grade or less, and 25.5% completed less than high school. The average grade of school completed by incarcerated GED test takers is 11th

grade (ACE 2010). Additionally, 28.5% of all state prisoners have a GED (BJS 2003). My sample consists of high school dropouts, because it is a theory-driven sample. I wanted to interview those who had either passed the GED or were taking the GED class in hopes of receiving the degree. With more time and resources, I would have liked to also interview incarcerated high school dropouts who did not plan to take the GED class and test.

Table 10 indicates the levels of GED attainment of my interview participants. The average pass rate of my sample (only counting those who have taken the GED, and discounting those who are enrolled in the class but have not yet taken the test) is 28.57%. This statistic could be skewed by the two subjects who took the GED 3 times each but did not pass the test. The average pass rate at PCCF in 2010 was 59.8%, while the average fail rate was 40.2% (Chart 1). Nationally, the average pass rate for the incarcerated population is 75% (ACE 2010). The subjects I interviewed who had taken the GED test have a lower pass rate and a higher failure rate than both the population of inmates at PCCF and of the national incarcerated population.

Although I did not ask my interview participants what the nature of their offense was, I was aware of which unit each inmate came from. It is important to acknowledge the unit of each inmate, because offense type may change what kinds of interview answers the inmates give. Furthermore, I want to be able to generalize to many different types of prisoners. For example, inmates involved with drugs and alcohol may give different answers than those incarcerated for violent offenses, and I wanted to capture a wide range of responses.

	Number of Completed GED	Number of Times Tested	GED
Name	Classes		022
Daniel	1	1	Yes
John	1	1	Yes
Timothy	1	1	Yes
Miguel	3	3	No
Brandon	3	3	No
Carlos	2	2	No
Allen	1	1	Yes
George	4-6+	0	No
Hector	2*	1	No
Omar	1*	0	No
Luis	2*	1	No
Tony	7+*	0	No

Table 10. GED Attainment of Interview Participants

Note: * Indicates that a subject has just begun the current GED class in which they are enrolled. + Indicates that a subject was unsure of exactly how many times he had enrolled in GED classes.

The inmates from the FS1 unit had been involved with drugs and/or alcohol preincarceration, and the inmates from the SAVE unit had histories of violence preincarceration, leading to their respective placements into those units. Additionally, some men mentioned that they had been through the SAVE unit and were now in the FS1 unit, and vice versa. At the time of the interview, seven men (58.3%) were currently housed in the FS1 unit. One subject (8.3%) was housed in the SAVE unit. Additionally, four men (33.3%) were in the general population (the nature of their offenses is unknown). It is important to note that 53% of state inmates and 10% federal inmates are serving time for violent offenses, and 18% of state inmates and 51% of federal inmates are serving time for drug offenses (Guerino, Harrison and Sabol 2011). My sample is representative of the larger prison population, given that the majority of both federal and state inmates are incarcerated for offenses involving violence and/or drugs.

Interview Methodology

I conducted my twelve interviews in the attorney-inmate meeting rooms inside PCCF. They were all conducted in early January of 2012. These rooms have video monitoring (as do all of the rooms in the prison) and a guard was present outside of the room. I conducted the interviews, and the head of Prison Programming at PCCF, Mr. Paul Chiano, sat in on all of the interviews. Mr. Chiano is not a correctional officer, and the inmates were friendly with him. Most of the inmates knew him by name and seemed to have a cordial and trusting relationship with him. At the start of the interview, both Mr. Chiano and I explained that we wanted the inmates to talk freely and that their answers were confidential and would not be discussed with any of the prison staff. Additionally, we explained to the inmates that their placement in GED classes and in the prison overall would be unaffected by their interview. Throughout the interview, the subjects were comfortable with Mr. Chiano, and he sometimes briefly interjected and/or asked questions. While it is possible that Mr. Chiano may have had a chilling effect on the interviews, I believe that having Mr. Chiano in the room made the inmates more comfortable, because he was a familiar face and someone with whom the inmates were comfortable.

The interviews all lasted from fifteen minutes to forty-five minutes; however, most interviews lasted for approximately thirty-five minutes. The interviews were semistructured and asked four main groups of questions: educational and family background, experiences with the PCCF GED Program, future and goals, and concluding questions. My interview questions and information sheet can be found in the Appendices.

Additionally, I sat in on a GED class and spoke extensively with the Director of Programming at PCCF.

After the completion of my interviews, I first transcribed each interview. Because tape recorders are not allowed inside prisons, I could only take notes with a pen and paper. I typed up all of my notes and then coded them. I first coded them for reasons why inmates took the GED, including, but not limited to: to build self-confidence, for their children, to become employed, to go to college, to learn, to be productive, and for fun. I also coded the interviews for reasons why the inmates dropped out of high school, including: language barriers, to work, family trouble, drugs and alcohol, and incarceration and/or expulsion from school. Additionally, I took down notes about the subjects' demeanors and observed behaviors during the interview. For example, I noted if a subject seemed to have a short attention span and asked me to repeat multiple questions over again.

The Missing Link

In my quantitative analysis of the 2003 NAAL, I found that the GED earned in prison was successful in improving the overall literacy of prisoners. In this respect, the prison GED program can be considered successful. However, studies have found that the prison GED does not have long-term benefits in employment and recidivism (Tyler and Kling 2003; Tyler and Kling 2006; Zgoba, Haugebrook and Jenkins 2008). Ultimately, the GED is successful in improving literacy, but does not appear to translate into either improved employment or reduced recidivism. This chapter will address the following question: Given that the prison GED improves literacy, why doesn't this improved literacy positively affect recidivism and employment outcomes?

It is important to explore why the GED, although providing gains in literacy, fails to provide long-term employment and recidivism benefits. My qualitative analysis takes on two main questions:

(1) Why do inmates want to take the GED/what meaning does the GED have for the men I interviewed?

(2) What causes the men to have limited aspirations?

From the interviews, I learned that the perceived importance of the GED program to these is short term and limited in scope, and is colored by their own history of school failure and disappointment. The first section of the qualitative analysis describes and analyzes the main reasons the interviewees gave for wanting to take GED classes. The second part of the qualitative analysis goes on to analyze the men's accounts of their limited aspirations. Educational advancement is trumped by worries about supporting infant children, drug and alcohol addictions, and taking care of oneself with limited family support. This leads these men to ascribe less importance to education, which in turn limits their prospects for the future. Consequently, although the GED does improve literacy, improved literacy alone is insufficient to truly ameliorate the lives of these men and improve their employment and recidivism outcomes in the long term.

Part I: Perception of the GED and Limited Aspirations

From the interviews, I learned that the men I spoke with are not constructing a story for themselves in which the GED is a stepping-stone back to a normal life. The large majority of the men I interviewed at PCCF do not have lofty goals that the GED will help them accomplish, and they do not have elaborate plans for the future. Instead, going to GED classes and taking the test is more a means to occupy their time and keep

them busy. The majority of those I interviewed said that they enrolled in GED classes to be productive and make the most out of their time in prison. Others said that they hoped getting the degree would improve their self-confidence. Four men wanted to receive the degree to make their children proud and to enable them to be better role models for their kids. Three men believed that a GED might help them become employed, although most others disagreed. Lastly, while five men mentioned that they would like to build on the GED and go to college in the future, none of those whom I interviewed seemed like they had a concrete plan to go to college. All put sobriety and employment as their goals first and foremost, before college.

Overall, the GED obtained in prison doesn't have a higher meaning to the men and they do not see it as a major turning point in their lives. Education does not play, and has never played, a central role in the lives of the men I interviewed. The meaning that the inmates have invested in the Graduate Equivalency Degree is short term and limited in scope, and is mainly a way to pass time and be productive while incarcerated. *To Be Productive*

The majority of the men I interviewed stated that they wanted to take GED classes and get a GED in prison to be productive. By this, they meant that the GED could help solve one of the main challenges of incarceration – overcoming the acute boredom and grinding routine of penal confinement. The GED classes performed this role. Not only did the classes take time out of the day, but they also functioned as meaningful activity that contributed to self-improvement.

All interviewees recognized the fact that they had a large period of time, and little to fill that time with. Daniel, a 23 year old who dropped out of school after the 10th grade

told me that he decided to take the GED because, "You have to do something productive [in prison]. And, I was going to take it regardless." After taking the GED class, he passed the test on his first attempt, stating that, "I remembered most of the stuff from high school." Similarly, Allen, the youngest interview participant at 21 years old, told me that he wanted to get his GED because "I had the time so I figured I'd get it out of the way." John, a 30 year old who also dropped after the 10th grade took the GED class because "it was something to do, and I got the time. It's good to have it. I told my mom, and I wanted to get it done with." He passed on his first attempt. After his release, John plans to either get a job as a tattoo artist (and eventually open his own tattoo shop) or work as a carpenter. He stated that he did not aspire to take college classes, but he may take vocational classes at some point in the future. For Daniel, John, and Allen, getting a GED is something that is a good way to fill time and be productive. It seems that all were planning on getting a GED regardless, and prison was an opportunity for them to use their copious amount of free time to get the degree. However, it does not seem that getting a GED is a stepping stone to a higher education or a new life for these men, it seems that taking the GED is more about filling empty time in prison and getting the degree over with.

Others talked about wanting to get the GED to do something positive and make the best of a bad situation. When I talked to Hector, he had already been through the GED class once and had just found out (the day before the interview) that he missed passing the test by five questions. He explained to me why he wanted his GED: "I needed to do something. I'm doing a mandatory sentence. I don't get no good time. Why would I do nothing, why would I waste my life? I might as well do something, everything that I

can get my hands on. Learn, prepare myself." Hector is in prison serving a mandatory minimum sentence for selling drugs in a school zone, despite the fact that his offense occurred in the summer, when school was closed. Because he is serving a mandatory minimum, he doesn't get any "good time"; his sentence will be the same length no matter how well behaved or productive he is while incarcerated. On what he has learned in the classes so far, he says, "I learned more math, reading, social studies. I always learned something. I learned about the U.S. more. If you pay attention you always learn something."

It seems that Hector wants to take the classes to learn and be productive, and take advantage of the opportunities that PCCF is making available to him. George, a 34-yearold inmate who dropped out of high school after the 11th grade because he was incarcerated, echoed Hector's desire to learn something in prison and use those skills outside of prison. He says, "I wanted my education. It's something I've always wanted. I took the class probably four to six times, but I've never taken the test." Many of the men feel that this is their opportunity to make good from bad, and learn while incarcerated instead of just wasting time.

Likewise, Luis wants to get his GED because, "Now I'm doing nothing over here and I have to take advantage of the time. I also have to keep my mind busy." He explained to me, "When I got to jail, I said 'In here I should try to do something. Try to get something good from something bad." Of prison education, he says, "I think it's good for everybody. This is jail and some are supposed to get punished. But with this you can get something good. And they are paying us to do it. They are giving us good time." Luis wants to make the best of his time in prison and be industrious. The GED class also

helps him keep his mind busy and passes the time: "If I wasn't doing that [learning] I'd be bored. After work I get out my book and do my homework. After that it's time to go to bed and I don't feel the time go by." Not only were GED classes a good way for him to be productive in prison, but they also kept his mind busy and made the time pass more quickly.

Two of the older men I interviewed, Tony and Miguel, seemed tired of making the same mistakes and wasting their life in prison. Both men seemed like they wanted to learn something, and were tired of messing around, both in prison and outside. When I interviewed Tony, he was currently taking his seventh GED class in prison. Tony, a 51 year old housed in the general population, is the oldest interview participant. He has been in and out of prison since he was incarcerated in high school. He has taken GED classes at prisons in Walpole, Norfolk, Bay State, Old Colony, Concord, and Forest St prisons. Of his past and present outlooks regarding GED classes, he tells me: "If there's 20 guys in the class, the teacher isn't gonna know if one's missing. I'll go, sit there and I was there for the good time. Now, I'm getting too old for this shit. My whole life passed me by while I was up in here. Now I wanna pass. I did homework last night, I ain't done that in 30 years." After spending over 30 years of his life bouncing in and out of prisons, Tony told me he really wants to stay out of prison and is serious about getting his GED. He explained to me why he is now trying to get his GED, at 51 years old: "I figured it's about time I did something. It's about time I got it."

Miguel, too, echoed Tony's sentiment. Miguel, the second oldest interview participant at 49 years old dropped out of school after the 9th grade and has been incarcerated thirteen times since 1985. Throughout the interview, he told me he was tired

of being in prison and really wanted to make a change: "I am just trying to do my time and learn something, and from there, I move on." Like Tony, Miguel has been through the GED class multiple times and says, "I want to complete this [GED], I'm tired of not completing it. I try to force myself to study more, but I can't get into it." However, he feels that this time is different: "I'm trying to work my way out of here and do good. I can't do this anymore. I am going on 50 and I've wasted 25 years of my life." Miguel also noted that the GED class had improved his life while incarcerated: "It's kept me out of trouble, for one. I know Rina [the teacher], I see her and come and talk to her." Both Tony and Miguel feel that they have wasted decades of their lives, and want to move onward from here.

For others, taking the GED is as much about being productive as it is about actively staying out of trouble in prison. George, a 34-year-old inmate, felt that the GED could help him stay out of trouble and be productive: "[The GED class] keeps me busy so I'm not involved in other things. Between that [the GED class] and the drug block [FS1] it keeps me out of trouble." Hector, too, believes that the GED will help his stay out of trouble. He says, "[The GED class] has taught me how to be more...you know, when I'm going to school and doing the right thing, I'm doing a positive thing. I'm doing more than just fighting and looking for trouble."

Overall, the majority of the men spoke of how the GED enabled them to be productive in prison and make good use of their time. There was a clear difference in what taking GED classes to be "productive" means to the older inmates versus what it means to the younger inmates. The older inmates are tired of returning to prison and failing to get their GEDs. To Miguel and Tony, the degree has more of a symbolic

significance, and represents them putting in effort to change their ways and learn from their past mistakes. Tony, 51 years old, is the oldest man I interviewed, followed by Miguel who is the second oldest at 49 years old. It is important to note that Miguel and Tony were the only two interviewees who spoke of the GED as a catalyst for change. These two inmates really seemed like they wanted to begin to turn their lives around using the GED to propel them. It is possible that after living as active offenders for over thirty years, and going in and out of prison, these two inmates are beginning to attribute more importance to the GED and want to use the degree to stay out of prison.

To the two oldest inmates I interviewed, the GED seemed to represent more of a turning point, and the men seemed to have higher expectations for their use of the degree. This is in keeping with Uggen's (2000) finding that even marginal employment opportunities have a greater positive impact on older offenders, while these employment opportunities have little effect on the recidivism of younger offenders. Uggen found that "work appears to be a turning point in the life course of criminal offenders over 26 years old…even marginal employment opportunities…significantly reduced recidivism among offenders over the age of 26" (2000:542). While Tony and Miguel are well over 26 years old, it is possible that they attribute more meaning to the GED and it will have larger positive effects on them as older inmates.

On the other hand, the younger inmates felt that the GED was just a necessary right of way and that their abundance of free time in prison was a good forum to study and take the test. To the younger men (everyone except Tony and Miguel), the GED plays the role of breaking up the routine of penal confinement and allows them to take ownership of their self-improvement.

Self-Confidence

A number of other inmates wanted their GED because, in addition to being a productive use of their time in prison, they thought that getting the degree would make them feel better about themselves and build their self-confidence. Brandon, a 34-year-old inmate who has been in and out of PCCF multiple times, is currently housed in the drug and alcohol unit. Although he is not currently enrolled in GED classes, he has taken them the last three times he was incarcerated at PCCF and fell just 20 points short of passing the test the last time he took it. Brandon told me that he wants his GED for personal reasons: "It'll make me feel better about myself knowing I have my GED. I want my GED for me." He believes that the GED will symbolize a change in his life, and may help him when he gets out of prison: "[The GED class] is a start to changing. Anything I do here that's positive that I can take back to the street will help me." Brandon wants to use his time in prison productively and do something positive. Aside from the two oldest inmates (Tony and Miguel), Brandon was the only inmate to speak of the GED as something that be a start to enacting change in his life. The majority of the inmates I interviewed did not see the GED as the beginning of a new life.

Likewise, Timothy, a 32-year-old inmate in the drug and alcohol unit, told me that he has wanted his GED since dropping out of high school. He says, "I just figured, I had nothing better to do. I always wanted to [get my GED] but I was too busy with work. Most times, I would tell employers I had a high school diploma and they never checked." He told me that he wanted to do well on the GED "just to prove to myself that I could do it." He enrolled in the GED class and decided to take the test early, and passed on his first attempt. Another inmate, 23 year old Daniel, Daniel reported that he "got a confidence

boost seeing scores." For Timothy, Brandon and Daniel, taking the GED is about using their time productively, proving to themselves that they could obtain the degree, and getting a confidence boost.

For Their Children

One-third of the men said that they wanted to get a GED for their children. They want to become better role models for their kids and believe that getting a GED might dissuade their children from travelling on the path to prison, as they did. As Brandon told me, "I have three kids and if they see that I don't have a GED, what kind of role model am I for them?" When Brandon was growing up, his mother and stepfather abused alcohol and drugs, which influenced him greatly. Now Brandon too is addicted to drugs and has children of his own. He doesn't want them to go down the same path that he is currently on. By earning a GED, Brandon believes he can show his kids that they have other options in life, and can positively influence them.

Like Brandon, Carlos recalls that his father was not a strong role model when he was growing up, and now the cycle is repeating itself with him and his son. Carlos says, "My son was born and I was into the streets, selling drugs on corners. My father was never around [when I was younger]." Carlos feels that the GED might help him to get his act together and be a stronger role model for his son.

Throughout my interview with Miguel, he became emotional at the mention of his daughter and seemed disappointed in the fact that he hasn't been able to provide for her and be a strong role model. He says of his oldest daughter, "She is always on me." Miguel's daughter was taken from him when she was four years old: "I wasn't a father figure to her. Now, she is always in school and working." Miguel was noticeably

different when talking about his daughter, and seemed to regret not being a better father figure to her. He mentioned a few times that his daughter really wanted him to stop going in and out of prison. He also feels that he has no authority to tell his younger children to stay in school when he is a high school dropout himself:

My youngest ones, I tell them to stay on course, never mind the riff raff. *Do you* and work your own studies. Sometimes I feel awkward telling them that, when half my life I've been seen coming in and out of these places [prisons]. I need some more self-esteem. They're getting tired of me coming back here.

Miguel wants his GED for a number of reasons. First, he feels it will help him to gain self-esteem and confidence, which might help him stay out of prison. Second, he wants to be able to be more of a positive authority figure for his children. He feels hypocritical telling his kids to do their schoolwork, and thinks that the GED will enable his kids to see him differently.

Both Miguel and Luis want to earn a GED to make their children proud. Luis lit

up at the mention of his son, and recalled with happiness the moment when he told his

son he was studying for the test. He says:

Yeah, I told my son, he's 14 years old. When I told him I was doing the GED he was proud. He said, 'Good, Dad. Go for it.' That's part of my motivation, when he asks me something and I don't know, I want to know, I want to tell him... to help my son, help my children with their homework. I'd like to teach what I learn to them.

Luis wants to teach his children what he learns, and he wants to be able to help them with their own schoolwork. Additionally, Luis feels that getting the GED will make his children proud of him.

One unforeseen benefit of the GED program in PCCF may be its ability to allow men to help their children with their homework and be better role models. It is possible that the children of the men who enroll in GED classes will be less likely to drop out of school themselves. Although researchers typically study more measurable and quantifiable outcomes, a third of the men I interviewed recognized the importance of having a basic level of literacy, if only to benefit their children in the future.

Employment

Only three of twelve of the men I interviewed felt that getting a GED would help them become legally employed after their release from prison. Others think that it will enable them to get better jobs, which will keep them away from the problems of their past. Although some acknowledged that they had little trouble finding work "under the table," they thought that getting a GED might help them find real work over the table. However, a few of the men thought that a GED would not help them become employed.

Says Miguel, "Work ain't hard for me to get. I always find a place to go. But you really need a diploma to get a real job...I was working with under the table stuff." Miguel acknowledges the difficulty of finding a legitimate job as a high school dropout. Timothy, a 32 year old housed in the drug and alcohol unit has been working in kitchens all of his life, even before he dropped out of high school in the 11th grade. Timothy is addicted to drugs and feels that the environment in which he works leads him further down the path of addiction. Timothy wants his GED because he believes that he can use it to find a better job and move away from working in restaurant kitchens. He is thinking of taking culinary arts classes post-release, and might try to "get into catering" because the hours are better and it might help him stay away from drug-addled kitchens. Says Timothy, "When you don't have the degree, you don't get paid."

Brandon, too, wants to get his GED because he thinks it will help him get a job. He says that it will be good "just to have it on my record. I've been finding it real hard [to

get a job post-release]. I get discouraged real quick and it leads me to do stuff I shouldn't be doing." He feels that the degree will allow him to raise his chances of becoming employed after he is released, which will set him on the right path and keep him out of prison. Tony also told me that drugs were prevalent in his line of work, and he felt that led him to return to prison time and time again. He says, "Travelling jobs, there's a lot of drugs involved. That's where I fail." However, Tony doesn't feel that having his GED will help him become employed: "Any job that I'd apply for I could probably get without that [a GED]. There's only so much you can do with a criminal record. I don't think it'd help me, but it couldn't hurt."

John feels the same as Tony, and believes that his GED won't necessarily help him get a job, because "I lied on applications before, they don't check it." He explained to me that he, and other men he knows, lie about graduating from high school and/or having a GED on job applications and the employer usually doesn't check to verify the facts. While George doesn't necessarily think the GED will help him get a job, he feels it may benefit him in helping to run his father's HVAC company. He says, "[Getting a GED] might help me in my business. It's just good to have in life. There're things I'll need in the future that it might help me with. I'm not getting any younger."

One inmate in particular seemed to struggle to decide whether or not he thought a GED would help him get a job. His answer perfectly summarizes the extreme struggle that many inmates go through to become gainfully employed after they are released from prison. On one hand, you can't do much without a high school diploma in America. On the other hand, an ex-convict with a GED also doesn't have much chance for upward mobility. Carlos states:

I didn't complete high school, and especially in America you need a good education to move forward in life. Especially with the skills that I know, when I apply for a job I need to show that I have education, a diploma. Maybe that might give me a chance to get a job. Without education you have no chance for success in life. It'll give me a better chance to get inside the door and from there I'll work up. It's rough out there without education. I couldn't get a job. I had to work under the table. It'll help me with the job hire...Because who's gonna hire someone with no GED/diploma and lots of work under the table?

With his first answer, Carlos seems positive that his GED will, at the very least, enable him to get his foot in the door somewhere. However, later in the interview, he seemed more negative and talked about the difficulty to find a job as someone who has been incarcerated, "They forget about us [ex-convicts] struggling. We go to society and struggle to get a job. Or we get education and it's hard to get a job with a GED. If you really want a job, you go and get it if you have a GED or you don't." Ultimately, Carlos believes that if you try hard enough, one will find a job – regardless of whether or not one has a GED.

Overall, the respondents reported mixed feelings about the value of a GED and their employment prospects after release. Essentially, they believe that a GED education improves skills, but that effect is offset by the stigma of having a criminal record. Their belief that a GED earned in prison may not be sufficient to help them become employed post-release from prison is quite true to fact. Says Pager, "Mere contact with the criminal justice system...severely limits subsequent employment opportunities...ex-offenders are only one-half to one-third as likely as nonoffenders to be considered by employers [which] suggests that a criminal record indeed presents a major barrier to employment" (2003:960). The inmates I interviewed seemed to accurately interpret the structural reality of their situation, a future in which their employment opportunities are significantly

limited. The overwhelming power of social structure and biased employment seems to defeat even the most motivated agent.

College

Interestingly, few of the men included college in their plans for the future when I initially asked about their plans for the future in the first part of the interview. However, when I prompted the men by asking if they planned to go to college, five of the men told me that they would like to take college classes post-release. It is important to note that the men did not mention college until I asked, and even then, they typically did not have a specific plan of where they wanted to go and what they wanted to study.

Daniel told me that after he serves his sentence, he plans to work as a house painter, pay off his car, and spend time with his son. He "eventually wants to take classes" and feels that his GED will be helpful to him in the future because "you have to have it [a GED] to do a lot of things, like go to college." John gave a similar response, telling me that he plans to either get a job as a tattoo artist or work as a carpenter. He first stated that he did not aspire to take college classes, but may take vocational classes at some point in the future. However, when asked later in the interview if he felt his GED would be helpful to him in the future, John reported that he felt he could further his education by going to college. Both men mention college, but have very tentative plans to take classes outside of prison.

Timothy mentioned that he may take culinary arts classes or go to community college. Later in the interview, he told me that in three years he saw himself, "Not here. Sober, with a good job, and with my kids in New Jersey. I want to have graduated college, or be halfway through." Allen also mentioned possibly going to college in

passing, but did not elaborate or include it in his plans for the future. Of his post-release plans, he says, "I just want to be successful, open up some type of business, a barber shop or something." Hector felt hopeful that his GED might allow him to take college courses, and told me that he has "connections outside with college." However, many of the men, including Hector, stressed the importance of their sobriety, employment, and children above their plans to attend college. None of the men had any specific plan involving college, and it did not seem like they were trying to get their GED as a stepping-stone to attend college.

It is important to consider the meaning that the men attribute to the GED program, because the effects of GED education may partially depend on what role the men see it playing in their lives. None of the men saw their enrollment in GED classes as a completely transformational event, they seemed to view it more as a way to improve themselves while filling empty time in prison. Next, I will put forth reasons why the men ascribe limited importance to the GED.

Part II: Disadvantaged Backgrounds

The interviews reveal men who are struggling with the immediate challenge of penal confinement (passing time and staying out of trouble). Even as they acknowledged the value of a GED, they were pessimistic about their employment prospects after release. Some might say this pessimism reflects limited aspirations. In this section, I try to provide greater context for these aspirations by exploring the social backgrounds of those I interviewed. The qualitative interviews allow this type of investigation of selectivity into prison that goes beyond the measures available in the quantitative data. From the interviews, I learned that the men at PCCF have largely had bad previous

experiences with school. These prisoners, including those who have obtained their GEDs while incarcerated, have had a plethora of poor experiences that are not captured through simple survey questions. Merely asking an inmate the highest level of school he has completed cannot begin to capture the stories and past experiences that an inmate has had.

The following section will serve to explain why the men I interviewed have limited aspirations. As I previously discussed, many of the men do not attribute a lot of meaning to the GED, and see it mainly as a way to pass time, be productive, possibly help with employment, and become a better role model. Few mentioned wanting to attend college, and those who did mentioned it more as a general idea than as a specific plan. Now, I will describe how and why the life experiences and backgrounds of the men I interviewed play a role in sculpting their present outlook on life and the GED and higher education. A number of common themes emerged as I was analyzing the data. Some of the men told me that they had to leave high school because they were either expelled or incarcerated. The majority of the men described their intense problems with drugs and alcohol that arose for them at quite a young age. Others recalled family trouble that propelled them to drop out of high school. Some men dropped out because they felt they needed to work. Lastly, two men faced strong language barriers and discontinued school because of these barriers. The following section is set out thematically according to the various reasons that men gave as to why they dropped out of high school. These answers are informative regarding the disadvantages and challenges faced by the population, which may be hard to observe with solely quantitative data. In this way, the qualitative interviews provide an elaboration on the problems of sample selection bias in the

quantitative analysis – they allow us to understand the unique challenges faced by this population that are not fully reflected in the quantitative data alone.

Incarceration and Expulsion from School

Four of the inmates (33%) failed to graduate high school because they were incarcerated at a young age. Daniel, one of the younger interview participants at 23 years old, dropped out of high school in the 10th grade. Daniel attended an alternative high school because of behavioral problems. He recalls that he would often get into fights at school, was angry, and had a short attention span. Then, in 10th grade, Daniel was placed into Department of Youth Services (DYS) custody after he was arrested. Daniel was told that the classes he was taking in the juvenile detention center in which he had been placed would count towards his high school diploma. However, after Daniel was released from DYS custody, he returned to his old high school only to learn that the credits he had obtained would not count towards his high school diploma. Feeling dejected and lied to, he decided to drop out of high school. He says, "If not for my incarceration, I would have graduated." Daniel's behavioral problems contributed to his DYS incarceration, which ultimately led to him dropping out of high school.

Allen, the youngest interview participant at 21 years old, dropped out of school after the 10th grade. Says Allen, "As much as I could, I used to skip classes. I'd leave at lunch break. I wasn't focused...I didn't want to be there. I wanted money; I wanted to be in the streets." Allen recalls that his parents were not really supportive of him. His father lived apart from him and his mom, and his mom was always at work: "I didn't have the support." Allen did not graduate high school because he was incarcerated at the age of 13 and placed into DYS custody. The combination of Allen's unstable home life, lack of

support, and desire to run the streets led to his incarceration, which ultimately prevented him from graduating high school.

George, a 34 year old inmate housed in the FS1 unit dropped out of school in the 11th grade. George recalled that he had behavioral issues in high school, and that he got in trouble frequently as a kid. He was diagnosed with Attention Deficit Disorder (ADD) as an adolescent. In high school, he was in a "special class...a special program in the high school for people with special needs." George described the class as being "more lenient than regular classes." He has taken medication for his ADD since high school, but still has trouble concentrating, even on the medication. He says his behavioral issues, coupled with his ADD, led him to make bad decisions. In school he would "get into fights" and also committed "armed robberies for money." He describes his family as a "good, hardworking family" though his father is an alcoholic. His parents encouraged him to stay in school. George told me: "If it wasn't for prison, I would've graduated. By the time I got out, I was 20-something years old. In never went back. I kept getting in trouble." Carlos, 35 years old, also recalls problems with the police saying he broke windows and popped tires. He says he was "always jumping around. In school I was in detention. I only wanted gym, basketball, football, and soccer." He also remembers being in detention frequently; he did not want to do his homework or participate in class. Although Carlos did not have to leave school because of incarceration, his troubles with the law certainly did not set him on the path towards graduation.

Tony, the oldest interview participant at 51 years old, dropped out of school in the 11th grade. He explained to me that he decided to move to LA at around 14 years old: "I went to LA and I went to school out there but I really took to the streets. I went to

Hollywood and I got lost in the shuffle. I started hanging around getting high. Doing crimes." He explained to me that school was more about chasing after girls and hanging out then it was about learning: "I was chasin' girls and doing what young guys do. I was into school. School had the girls there. That's where you went. I went to school but I didn't go to class." Tony ultimately did not graduate from high school because he was incarcerated: "I went to jail, got a state sentence and it's been downhill since then. By then [post-incarceration] I was too big for school." Both Tony and George were incarcerated in high school, and felt they were too old to return to school once they got out of prison.

Omar is a 47-year-old inmate housed in the general population. He has been in and out of prison for most of his life. He says, "They kicked me out [of high school] 'cuz I wasn't tryna learn nothing. You get in with a different crowd. We just never really did nothing; we just hung around. We used to skip school. I got suspended three or four times before I got expelled." In high school, Omar was in a special needs class. He was diagnosed with a learning disability. He told me that "they [the teachers] could have been more helpful, spent more time" with him. Omar recalls having "great fun in high school." He stayed after school for detention frequently: "It should have been something you learn and get out of it but we didn't...I skipped a lot of days." In the 9th grade, he was expelled from school and joined the job corps. Omar has been an alcoholic for 33 years, and was homeless prior to his most recent incarceration.

While the main reason that these Daniel, Carlos, George, Tony, Allen, and Omar left school was either expulsion or incarceration, many factors prevented them from succeeding in school. Learning disabilities, behavioral issues and anger problems led

some to act out. In other cases, unstable home lives and lack of support directed attention away from school towards the streets. For all, school was not a place these men desired to be, and both structural and cultural factors combined to push them out of high school. *Drugs and Alcohol*

Drugs and alcohol were mentioned in the vast majority of the interviews. Many say that drugs and alcohol led them to commit crimes, as mentioned above. Others simply became so heavily addicted that they dropped out of school. Some men dropped out of high school to sell drugs and make money, while to others, drinking, doing drugs, and cutting class were all part of a normal lifestyle. Timothy, a 32-year-old inmate housed in the drug and alcohol unit dropped out of high school in the 11th grade. He dropped out of school because of a drug addiction, and recalls frequently cutting class, "A little less than half of the time I would cut. It got worse towards the end. I gave up; I just didn't want to be there. Sometimes [I skipped] to get high. Nobody noticed...maybe somebody should've noticed, no one seemed to care or notice." Timothy felt that no one cared whether or not he attended school. He later learned that his mother had requested the school call her to tell her when Timothy was cutting class. However, the school never called his mother, and he claims that his mother did not know of his poor school attendance. He says, "I wasn't motivated. I'd go to class for test day and ace the test but I never did homework." Timothy has worked as a cook since high school, an occupation that has perpetuated his drug problem. He explained that drugs are prevalent in restaurant kitchens. Drugs are used to stay awake and alert in many jobs in the culinary industry, which require late and long work hours. Tony, too, echoed the sentiment that his job pushes him to do drugs and leads to his repeated penal confinement.

Brandon, a 34-year-old inmate currently housed in the Drug and Alcohol Unit, dropped out of high school in the 10th grade. He "got mixed up with the wrong crowed...got into selling drugs. Money was more important at the time. I lost interest." He explained to me that his family life was unstable, and his mother was an addict: "At an early age I had a mother that was into drugs. She couldn't do for me what I wanted her to do. She put her drug use before getting me what I needed. I went out and sold drugs to do it myself. I put my education onto the back burner." In high school, Brandon was placed into a class for students with behavioral problems. He recalls, "I didn't want to be there [at school]. I couldn't be in a regular class, I would goof around, I wanted to be the class clown. Then [after I was placed into the special class] I started skipping those classes too." The program that Brandon was placed into, the Wareham Annex Program, is notorious for being poorly run and filled with students who have bad behavioral problems. Brandon told me that his drug use prevented him from attending school and graduating: "Smoking marijuana was my main priority, and selling marijuana. With my mom and my stepfather, it was a big party 24/7. It influenced me, made me think drinking and smoking, I could do that, there was nothing wrong with it. It played a major part with me and my education." Now, Brandon says that if he could do it all again differently, he would: "All my life I couldn't wait 'til I was 16 so I could sign myself out [of school]. I had no interest in education. I wish I could do it over. Back then I just wanted to get out of there."

Timothy and Brandon were only two of the many men I interviewed who were struggling with drug and alcohol addiction. These two men named drugs and alcohol as the main reason why they dropped out of high school, but many others mentioned that

addiction played a supporting role in their lack of educational success. The draw of drugs at a young age distracted Timothy and caused him to skip school. For Brandon, the lure of a lifestyle that would enable him to sell and do drugs was more lure than school was. *Family Trouble*

Four of the other men I interviewed echoed Brandon's feelings that a turbulent family life led them to drop out of high school. Miguel, a 49-year-old inmate in the drug and alcohol unit dropped out of school in the 9th grade. He has been in and out of prison thirteen times since 1985. "My dad got killed, and my mom sent me back to Puerto Rico [as a young child]. I went to school there and then moved to New York, then I got sent to Brockton [MA]. I kept moving around. There was a lot of family trouble...my father, brother and sister were killed, and another relative died from diabetes." After Miguel's dad passed away he took care of his mom: "I tried to be the head of the household. I lost it when my mom died. I also lost my little sister." In addition to the pressures Miguel faced as head of his household, he was ridiculed in school. He says, "It was like a lot of middle class kids [in his high school]. People picked on me about my English, how I dress...I'd rather focus on my classes. My father always told me it don't matter what people say, just learn there [at school]. But, I got into fights, even in elementary school." Miguel told me that his downhill spiral began at age 15: "I started at a young age, smoking weed. My first drink was when I was 15 and from there everything went downhill for me. I don't know why I started because my father was real disciplined. I don't know if maybe it had to do with school. Maybe it was the pressure of my dad and teachers always on me."

Tony, too, described a turbulent family life. Like Miguel, Tony's father was absent for most of his life.

My mom worked two jobs, had five kids. My pops was an alcoholic...Dad was a chemist, but he liked the sauce [alcohol] more than he liked anything else. He went to California and left my mom to struggle. I left at 12-13 years old and got my own things like clothes and money. When I was a kid I messed with older girls, I'd move in with them and they'd be my surrogate mother. I'd also sell a little weed.

Tony is an addict like his father, and has been in and out of prison for most of his life. Lack of family support, coupled with alcohol abuse at a young age, played a big negative role in Omar's life, as well. Omar started drinking in 9th grade, at the age of 14. Once his parents left for work he would stay home and drink. Omar recalls that his parents were not supportive of him: "I never had respect growing up...was never taught anything. That's why I am how I am now. They didn't care that I dropped out of high school. Some parents care about their kids but we weren't one [of those families]." While a number of subjects felt that an unstable family life and unsupportive parents helped them along the path to incarceration, others noted that their parents tried but failed to effectively support them.

Carlos, a 35-year-old man currently housed in FS1, dropped out of high school after the 10th grade. Carlos' father was never a part of his life, which Carlos believes negatively impacted him: "I had no strong father role model…the boss or the man…if I would've had that I would have done better in school." His mother was a strong role model to him, but he did not want to burden her with his problems: "My mother was always there. She was a father and a mother and a friend. It was hard bringing problems home to her because I didn't want to get in trouble….My brother took the streets and I followed his lead. My uncles are all alcoholics and addicts. My mom wasn't." Carlos

attended a technical/vocational high school, and recalled "as soon as school was out I was doing my own thing, running around the streets." Carlos remembers skipping school frequently: "It started in 8th grade, I was introduced to marijuana. In 9th grade I'd skip class to go to the mall." He described to me how easily he could skip school without his mother finding out. When the school would call his mother to report that he had been skipping class, he would wrongly "translate" the phone call for her and tell her everything was fine. He says, "My mother wouldn't know until she got called in [to school], she couldn't understand English. She got called in eventually." When his mother finally found out he had been missing school, she was angry, but this behavior had been going on for so long that there was little to do. Says Carlos, "Anger was one of my issues. I had no father figure. I was angry about my father not being present. I was holding a lot of anger and resentment. I didn't know how to deal with it and let go."

Miguel, Tony, and Carlos all cited their lack of a strong male role model as one of the main reasons why they dropped out of high school and committed crimes. Some have close family members who are affected by addictions, exposing the men to drug and alcohol abuse and forcing them to endure the negative effects of living with an addict. All three men believe that the absence of a father had a strong negative effect on their early lives.

The Need to Work

Some men mentioned that they dropped out of high school to start working, whether to support their families, make money, or simply because they were bored of school. Says Carlos, "My son was born in '93, I was doing after school jobs. Ok, I got a son now, I'd rather drop out of school and support him. I didn't have that discipline to do

both. I didn't even tell my teachers I was gonna be a father. I was full of anger...young, being a father. I had a lot of pressure from a lot of angles." Similarly, although Hector started his family after he dropped out of high school, he too felt pressure to make money to support his family. This was intensified by the fact that he had no high school diploma, and was unable to get a well paying job. He says, "I had two kids in diapers. I was too young to handle that. Maybe [if I graduated high school] I would've had a better profession, maybe I would've got paid more."

John, a 30-year-old inmate currently housed in the Drug and Alcohol Unit, dropped out of his vocational high school in the 10th grade. John dropped out of school to start working. He says, "I didn't 'feel' school. I only went to the classes I wanted to go to." He cut class two to three times a week, and only attended the classes he was interested in, such as carpentry, science and math. He told me that he cut class frequently: "I wasn't feeling those classes. I was stubborn. I felt like history wouldn't help me out with life." John had trouble "focusing in school. I never talked to anyone about it…I was into girls and playing hockey." Similarly, Tony began selling drugs at age 12 in order to make his own money.

While Carlos dropped out of high school because he felt he had to provide for his family, John simply did not want to attend school and thought that work would be a better use of his time. Carlos recalled the intense pressure of being a father at a young age, and the discipline needed to work and attend school. Carlos was unable to live up to this pressure and instead began working. Years later, when it was too late, Carlos realized that his employment mobility was limited due to his lack of a high school diploma. The frustration he experienced led him to drug dealing to make more money, for which he

was ultimately imprisoned. On the other hand, John was simply bored and wished to put his time to better use by working.

Language Barriers

Two of the inmates I interviewed dropped out of school because of language barriers. Hector, a 32-year-old inmate, began 10th grade but dropped out of high school shortly thereafter. Hector was born in Chicago and attended school there until the 2nd grade. Then, he and his family moved to Puerto Rico, and he was moved back to kindergarten (because he knew no Spanish and only English). When he moved back to Massachusetts ten years later with his brother (after he completed 9th grade in Puerto Rico), he was not only two years older than the other students in his grade, but also he spoke no English. Finding a school to attend in Massachusetts was difficult: "One school, they didn't want me. I didn't speak one bit of English. The second school said no [also]. They wouldn't let me be a normal student [they wanted to place him into a special education class]." He says, "I had already been disappointed one time and didn't want to be disappointed two times." Feeling ostracized and frustrated, he dropped out of high school and began working: "to find a school for me was hard, I got disappointed and went right to work instead of going to school." Although Hector was too young to be legally employed, his brother knew the boss at a cheesecake factory, and he began working full time at the factory almost immediately after moving to Massachusetts. His boss taught him the ropes and be became the manager of the factory at 17.

Luis, a 38-year-old inmate housed in the general population explained that he dropped out of school in the 8th grade. He left his home country, El Salvador, in the 8th grade and came to the United States. He started working and thought that he "wouldn't

need school anymore." Back in El Salvador, Luis recalls that he was a good student, never got in any trouble, and was in regular level classes. His father was the mayor of a small town, and his family owned a coffee farm. It grew too dangerous for him to live there, so his parents sent him to live in America. When his parents found out that he had dropped out of school, they "weren't happy...and said they'd pay [him] money [to continue his education]."

Overall, the interviews highlight the unusual disadvantages experienced by prisoners. Often, multiple factors came together to prevent the men I interviewed from graduating high school. Many came from broken homes, had alcoholic parents, became alcoholics and drug addicts themselves at a young age, struggled to focus and stay motivated in school, and had extremely troubling home lives. Not only do these interviews give us a more textured view of the prison population of high school dropouts, but they also allow me to examine selection bias and the extent to which it may have impacted the quantitative analysis.

Possible Biases and Limitations

When considering this qualitative analysis, it is important to recognize the subjectivity of interview data. I write the events as the men tell them to me, and I have no way of verifying the validity of such events. The men tell me the events from their perspective. However, the men may be telling me a skewed version of events. For example, they may place undue blame on their family background on causing them to drop out of high school, while they may have dropped out mostly because they were unmotivated or unwilling to do the work. However, it is important to consider the events

from the perspective of the men, because this helps us to understand their feelings and perceived experiences.

Additionally, the men may have seen me as an outsider, because I am a woman and because I do not come from the same background that many of them come from. They may have not been fully comfortable talking about past events in their lives with me. However, I tried to make the men feel as comfortable as possible, and explained to them that I have experience working with prisoners at both MCI Norfolk and in Suffolk House of Correction in Boston, where I have tutored prisoners for the past two years. I feel that having Mr. Chiano in the room with me made the men feel more comfortable, because they were familiar with him and friendly toward him.

Finally, an additional limitation is that I was unable to compare inmates who had dropped out of high school but had never taken the GED. If I had been able to compare high school dropouts who hadn't taken GED classes to those who have taken GED classes, I could have compared the motivations of the two groups. Also, I could have asked the non-GED group why they have not enrolled in classes and if they have thought about it. In doing so, I could have learned more about the differences between the two groups and learned more about the extent to which selection bias was present in my research.

Discussion

My quantitative analysis shows that a GED earned in prison improves overall literacy. The interviews I conducted at PCCF allow me to explore what the GED means to these men, how this meaning is derived, and the goals they wish to achieve after receiving their GED. My qualitative analysis can help shed light on why a prison GED

and the literacy benefits that go along with the degree do little to improve employment and recidivism rates. The research I have done can help fill the gap in explaining why, in the current state of affairs, increased literacy is not enough to improve the fate of these prisoners.

Through the interviews, I found the majority of the men I interviewed take GED classes in order to productively fill their time while incarcerated. The men certainly do not see the GED as a stepping-stone to a greater life, and do not expect that the degree will drastically improve their lives post-incarceration. These men have much larger issues to deal with than education, namely, staying clean and sober, finding a stable job and place to live, and remaining in contact with their children. Because education has not been a focal point in their lives thus far, it is possible that they attribute less meaning to education. The effectiveness of prison education programs depends in part on the inmates' perceptions of these programs. If the inmates were to envision GED programming as transformational, larger effects may be possible. I discuss this further in my Conclusion.

The interviews showed that many of the men do not have lofty goals and are not as interested in higher education because of their backgrounds. All of these men are high school dropouts, and all of them had serious problems growing up, as I discussed in the latter part of my literature review. Many struggled with drug and alcohol abuse at a young age, and were forced to drop out of school because of these problems. Others had learning disabilities and behavioral problems that prevented them from being successful in school and graduating. Some were expelled or incarcerated before they could even graduate from high school. For all of the men, past experiences with school and turbulent

family backgrounds prevented them from successfully graduating. It follows, then, that the men do not value the educational process and focus mainly on turning their lives around by getting clean, getting better jobs, and becoming better role models to their children. For them, education has never been a successful path to criminal desistance and improved opportunities.

Given their social background, the conditions under which they take the GED, and the conditions to which they are returning post-release, the interviewees were pessimistic about the transformational power of the GED. We might draw two conclusions from the interviews:

(1) The effect of the program may depend, in part, on participants' perceptions and the meaning that the participants attribute to the program.

(2) The disadvantages presented by their social context, both before imprisonment and after, may be so severe as to offset any positive effects of the GED.

Although the GED improves overall literacy, improved literacy is not enough to ameliorate the lives of these men, at least in terms of employment and recidivism outcomes. It is important to consider why improved literacy does not improve education and recidivism outcomes, and how we can build on the positive results found in my quantitative analysis to improve employment and recidivism outcomes. From the interviews I conducted, it seems that prisoners who take the GED tend not to have lofty academic goals, rather, the classes were more about filling time. Even so, increased literacy was obtained for those who earned a GED. Is it possible that with a more substantial goal, such as a college degree, a similar level of success could be obtained?

And would the inmates with a higher educational degree be met with more success in the job market?

It is possible that the stigma of being a felon overrides some potential benefits of obtaining a GED in prison. Employers are heavily biased against people with criminal records, and a GED can do little to erase this stigma. But, what if a higher level of academic achievement could make a more significant impact on both the inmates (once released) and their potential employers? I argue that further education is theoretically obtainable, because even with a group of prisoners with limited aspirations and expectations, as well as past poor academic experiences, improved literacy was obtained.

Perhaps if prisoners saw a clear connection between education and a brighter future, more of an effect would be seen. If prison GED programs build more forwardlooking expectations, it is possible that the results would be more significant. If prison GED programs integrated two year post-release plans into the course, encouraged men to take college classes, and gave them information about grants and specific college courses, it is likely that the men would slowly come to have more forward-looking expectations and place more value on the GED program, and the educational process in general.

V. Conclusion

Past research on GED programs in prison have focused on employment and recidivism. This thesis tries to expand on earlier work by focusing narrowly on the effect of a GED on literacy and the experience and meaning attributed to the program by prison inmates enrolled in education programs. Earlier research suggests that the prison GED does not reduce recidivism rates (Tyler and Kling 2003; Zgoba, Haugebrook and Jenkins 2008). Similarly, the GED is said to have little impact on salary earned and probability of post-release employment (Tyler and Kling 2006). The quantitative portion of my thesis focuses on how the GED affects the literacy scores of incarcerated high school dropouts.

I find that the GED earned in prison has a positive and significant effect on literacy. Incarcerated high school dropouts who earn a GED in prison see gains in literacy compared to their counterparts who do not attempt the GED while incarcerated. My estimates reveal that if all incarcerated high school dropouts earned a GED in prison, the literacy gap between prisoners and the general population would be closed by over twothirds. However, we find that increased literacy as a result of a prison GED does not translate to benefits in the spheres of employment and recidivism.

The interviews that I conducted at the Plymouth County Correctional Facility help to explain why a GED and the associated literacy benefits are not enough to provide employment and recidivism benefits. The interviews revealed that the majority of the men took GED classes in order to productively fill their time. Not only did the GED break up these inmates' days, but it also actively contributed to their self-improvement. However, the men neither saw the GED as a turning point in their lives, nor did they assume that it would drastically improve their lives post-release.

The men I interviewed may not attribute a great deal of meaning and importance to the GED given the overwhelming obstacles and disadvantages they face. They described life-long struggles with drug and alcohol addictions, family problems and learning disabilities. In general, education was less important to them than sobriety and economic survival. The inmates' social backgrounds coupled with the conditions to which they would likely return after their release from prison, led the interviewees to be pessimistic about the transformational power of the GED. From this, I draw a two-fold conclusion. First, I suggest that the effect of the prison GED program may depend on the meaning that participants attribute to it. Second, the disadvantages experienced by the inmates may offset the positive effects of the GED. Both of these topics are fruitful areas for further research.

Attribution of Importance

My quantitative analysis presented strong evidence in support of the fact that the GED is associated with increased literacy. This finding is surprising in light of research that shows that a GED neither reduces recidivism nor improves employment outcomes for ex-inmates. This raises the possibility that the efficacy of prison programs depends in part on the meaning that the participants attribute to them. It is possible that if the inmates were to see GED programming as transformational, we may see much larger effects.

Maruna puts forth the theory that in order for an active offender to desist from crime and stop recidivating, the offender needs to create a narrative of transformation and see his or her life as having been transformed. Says Maruna, "If such an enormous life transformation is to be believed, the person needs a coherent narrative to explain and justify this turnaround...Perhaps most importantly, ex-offenders need to have a

believable story of why they are going straight to convince themselves that this is a real change" (2001:85-6). The GED education program may not be enough to spark this "coherent narrative" of change for these inmates. For example, while religious conversion becomes a catalyst of change for some offenders because it is seen as transformational and all-consuming, the inmates I interviewed did not see GED programming in this way. It is possible that if inmates were to see the GED as more transformational and build it into their narrative of change, it would make more of a positive impact in their lives post-release.

The interviews also revealed the acute social and economic disadvantages faced by the interviewees, both prior to incarceration and after release from prison. Thus, even if they had a narrative of self-transformation, this narrative may be insufficient to overcome the limited opportunities and the stigma placed on ex-inmates. The overwhelming power of the existing social structure could defeat even the most motivated agent.

Structural Inequality

The GED may not be sufficient to improve recidivism and employment outcomes when inmates return to the same neighborhoods and face the same structural barriers that played a part in their incarceration. Many of these men come from disadvantaged backgrounds and will return to similar circumstances after their release. Giving these men a GED is like putting a Band-Aid on an open wound. While a GED may be one element in achieving the ultimate goal of post prison success, it is insufficient to address the problems of persistent structural inequalities present in neighborhoods of concentrated disadvantage.

Ex-offenders will likely also find it difficult to become employed after release from prison. Those who earn a GED are still considered to be low-skilled workers, a skill level that is not desirable in today's workforce. Says Wilson, "the problem of declining employment has been concentrated among low-skilled men" (1996:25). The new global economy places more importance on education and training, and the GED is just not sufficient to earn someone a career.

Low-skilled men who have been incarcerated face an even greater challenge in becoming employed. A criminal record has been found to reduce job callbacks by 50%: "employers were unwilling to consider equally qualified applicants on the basis of their criminal record" (Pager 2003:956). Moreover, the negative effect of a criminal record for black job applicants is 40% larger than its effect for white job applicants (Pager 2003). It comes as no surprise, then, that even with increased literacy and a GED, ex-inmates do not see significant employment benefits.

In addition to the prejudice faced by low-skilled ex-inmates in the job sector, other severe structural inequalities increase the already present burden. Wilson describes the "new urban poverty" as "poor, segregated neighborhoods in which a substantial majority of adults are either unemployed or have dropped out of the labor force altogether" (1996:19). Wilson explains the relationship between joblessness and weak social organization as follows: "high rates of joblessness trigger other neighborhood problems that undermine social organization, ranging from crime, gang violence, and drug trafficking to family breakups and problems in the organization of family life" (1996:21). Many incarcerated men will return to neighborhoods with high rates of joblessness and social disorganization, making reoffense a more viable option. The return

to neighborhoods where crime and joblessness is endemic, coupled with the lack of demand for low-skilled workers in America's workforce and the stigma placed on exinmates makes employment less likely and recidivism more likely to occur.

Further Research and Implications

Further research could examine how the GED earned by incarcerated men is beneficial to parenting skills post-release. Many of the men I interviewed talked about wanting a GED to help their children with homework and to make their children proud. It is possible that the GED enables men to not only be better role models for their children, but also to motivate their children to stay in school longer and perform better in school. Longitudinally tracking children who have fathers who earned prison GEDs and those whose fathers are high school dropouts without GEDs would allow us to explore the possible benefit of the GED on parenting.

Despite the limited effectiveness of a prison GED, the improvement in literacy suggested by the quantitative analysis is fundamentally important, even if we cannot see its effect on recidivism and employment. The GED, and the literacy benefits that accompany it, may have benefits that we have failed to study and attribute importance to. Improved literacy may provide an improved quality of life, if only in a diffuse way. Simply being able to read to one's child, read and understand newspaper events, and figure out the tip at a restaurant may improve well-being and one's fuller participation in society.

Prison education alone is not enough to improve the life outcomes of ex-inmates in the long term. The men I have discussed throughout this thesis face serious problems, such as social marginality; the return to poor, segregated neighborhoods; employer

prejudice; drug and alcohol addiction; and a low level of education and skills, even with a GED. To the men I interviewed, GED education is not the spark that will precipitate a narrative of self-transformation. A GED alone cannot significantly reduce recidivism and improve employment outcomes because the burden faced by ex-inmates is complex and multi-faceted.

Name ⁹	Age	Race ¹⁰	Highest Grade Completed	Unit
Daniel	23	White	10^{th}	FS1
John	30	White	10^{th}	FS1
Timothy	32	White	10^{th}	FS1
Miguel	49	Hispanic	$9^{\rm th}$	FS1
Brandon	34	Black/Cape Verdean	10^{th}	FS1
Carlos	35	Latino	10^{th}	FS1
Allen	21	Black	10^{th}	SAVE
George	34	White	11^{th}	FS1
Hector	32	Hispanic	9^{th}	General Population
Omar	47	Hispanic	9^{th}	General Population
Luis	38	Hispanic	8^{th}	General Population
Tony	51	Black/Cape Verdean	11 th	General Population

Appendix A: Participant Overview

⁹ Names have been changed to ensure confidentiality. ¹⁰ White refers to "non-Hispanic white" and Black refers to "non-Hispanic Black."

Appendix B: Recruiting Script

A senior sociology student at Harvard College is conducting this study. The aim of this project is to assess the impact of GED education in a correctional setting. If you choose to volunteer to be interviewed, you will be asked several questions about your experience with education as a young adult and while incarcerated. With your permission, the researcher will take notes with a pencil and paper. Interviews will not be audio recorded. Interviews will take around one hour. No one will see the notes from your interview other than the primary researcher.

The risks anticipated are no more than minimal. Take note that it could be stressful for some subjects to talk about their educational experiences. If a subject wishes not to answer certain question(s), those question(s) may be skipped at any time. Your responses to interview questions will be kept confidential. Research data will be destroyed immediately at the end of the study.

Your participation is voluntary and you may drop out of the study at any time without question or penalty. You may withdraw by informing the interviewer that you do not wish to participate anymore. You may also skip any question(s) during the interview. Your participation in this study has no effect on status in the prison.

Please contact (me) Mr. Paul Chiano, the Director of Treatment and Classification at the Plymouth Country Sheriff's Department, if you would like to participate in this study or have any questions about the study.

The Plymouth County Correctional Facility will receive a copy of the final project report. This report will be made available to all study participants, who should contact Mr. Chiano if interested.

Appendix C: Informed Consent Sheet

Please read this information carefully.

Purpose of this research: To assess the impact of GED education in a correctional setting and explain the current findings regarding the effect of GED education in prison. This research is being conducted as part of a senior sociology thesis at Harvard University.

What your participation will consist of: If you choose to participate, you will be asked questions about your experience with education as a young adult and while incarcerated. With your permission, I will take notes with a pencil and paper. Your interview will be identified using a random numerical code; interviews will be destroyed upon completion of the study.

Time required: The interview will around one hour.

Risks: The risks anticipated are no more than minimal. Take note that it could be stressful for subjects to talk about their educational experiences. If a subject wishes not to answer certain question(s), those question(s) may be skipped at any time.

Benefits: Subjects will not directly benefit from participation in this study. However, your answers could provide more information about the motivations for GED education in prison. The findings from this study could benefit students of GED classes in prison in the future.

Confidentiality: Your responses to interview questions will be kept confidential. At no point in time will your actual identity be revealed. You will be assigned a random numerical code. The transcript, without your name, will be kept until the research is complete. Research data will be destroyed immediately at the end of the study.

Participation: Your participation is voluntary and you may drop out of the study at any time without question or penalty. You may withdraw by informing me that you do not wish to participate anymore. You may also skip any question(s) during the interview. Your participation in this study has no effect on your parole eligibility nor will it affect your status at the Plymouth County House of Correction.

Contact: For questions, concerns, suggestions, or complaints about your rights in this research that are not being addressed by researcher, or research-related harm: Jane Calhoun, Harvard University Committee on the Use of Human Subjects in Research, 50 Church St., Room 533, Cambridge, MA 02138. Phone 617-495-5459.

Appendix D: Interview Questions

- I. Background Questions
 - 1. What is the highest grade you completed in school?
 - 2. Why didn't you graduate from high school?
 - 3. What level of classes did you take in school?
 - 4. Did you ever/often talk to teachers or guidance counselors about your progress at school? Did you feel your teachers were supportive of you?
 - 5. When you were in high school, how many times a week did you go to school?
 - a. Did you cut class often? If you cut class, why did you do so?
 - 6. What specific difficulties did you have at school?
 - a. Did these difficulties prevent you from graduating?
 - 7. Do you have any training in particular job skills?
 - 8. What was your home life like? Were your parents supportive of you?
 - 9. Were there any issues outside of school that kept you from attending?
- II. Experiences with the Prison GED Program at the Plymouth County Correctional Facility 1. Why did you decide to take the GED class?
 - 2. Have you ever taken the GED test before? If so, how many times?
 - 3. How many times a week do you attend the GED education class, and how long is it?
 - 4. How is the class structured and how did you spend your time in class?
 - 5. What did you learn about?
 - 6. Do you study and/or do homework outside of class?
 - a. How much time do you spend studying outside of class? Alone or with others?
 - b. Would it have helped you if the teacher were available outside of class?
 - 7. What could be improved with the GED programs you are involved in?
 - a. What are the effective aspects of these programs?
- III. Future and Goals
 - 1. What are your goals as a participant in the GED class?
 - 2. Do you feel you have learned from the GED class?
 - a. What do you feel your strengths and weaknesses are as they relate to learning in general?
 - 3. What do you plan to do after you are released from prison?
 - a. Do you plan to take college classes/business classes/other classes post-release?

4. Do you feel your GED will be helpful to you in the future? If so, how will it be helpful?

- a. Do you think having your GED will help you become employed?
- 5. What other programs or classes do you participate in in prison?
 - a. Which programs that you participate in will be the most helpful to you when you are released?
- 8. Aside from your GED coursework, how much do you read or participate in schoolwork in prison? Do you use the library, and if so how often?
- 9. Has the GED class you took improved your life in prison? If so, how?

IV. Concluding Questions

- Where do you see yourself three years from now?
 Were there any questions I should have asked but didn't?
 Do you have any questions for me?

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