

ABSTRACT

Title of Thesis: PRISON PROGRAMMING AND MISCONDUCT:
EXAMINING VARIATIONS ACROSS PROGRAMS
AND RACE/ETHNICITY

Devyn C. Kiszewski, Master of Arts, 2020

Thesis Directed By: Professor Lauren C. Porter, Department of
Criminology and Criminal Justice

Prior literature has suggested that prison programs can influence the prevalence of disciplinary infractions in correctional facilities. However, there is less understanding of how the race and ethnicity of program participants may impact this relationship. The current study tests the relationship between prison program participation and misconduct, including how participation in different program categories and participant race and ethnicity are differentially associated with misconduct, using data from the Survey of Inmates in State Correctional Facilities (2004). Findings suggest that overall, participation in most forms of programming is associated with a higher likelihood of prison misconduct, with the exception of religious program participation. Tests comparing coefficients for black, Latino, and white participants across logistic regression models revealed no significant differences in how educational, vocational, and religious program participation relates to prison misconduct. Future research should evaluate time-series data to better account for temporal ordering and also examine how race and ethnicity might impact the relationship between other forms of prison programming and disciplinary infractions.

PRISON PROGRAMMING AND MISCONDUCT: EXAMINING VARIATIONS
ACROSS PROGRAMS AND RACE/ETHNICITY

by

Devyn C. Kiszewski

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of the Arts
2020

Advisory Committee:
Professor Lauren C. Porter, Chair
Professor Wade Jacobsen
Professor Brian D. Johnson

© Copyright by
Devyn Claire Kiszewski
2020

Acknowledgements

Foremost, I would like to express the deepest appreciation to my thesis committee chair, Professor Lauren C. Porter, without whom this thesis would not have been possible. Dr. Porter continually provided suggestions and encouragement which challenged and motivated me. As a result of her direction and collaboration, I have completed a research project which was engaging and interesting to me throughout the entire process. Thank you for all of your time and support.

I also extend my gratitude to the rest of my thesis committee: Professor Wade Jacobsen and Professor Brian D. Johnson for their encouragement, insight, and expertise.

I would like to thank Professor Min Xie, my academic advisor, who has supported and encouraged me throughout my studies and has never failed to point me in the right direction.

Thank you to my family, friends, classmates, and colleagues who have supported me in so many ways during this process. I am especially grateful for my husband, Katriel, whose patience and encouragement were limitless throughout the past two and a half years. Thank you to my parents for your endless support and interest in my studies. Finally, I would like to extend thanks to my grandfather, who has always supported my educational endeavors.

Table of Contents

| | |
|--|-----|
| Acknowledgements | ii |
| Table of Contents | iii |
| List of Tables | v |
| List of Appendices..... | vi |
| Chapter 1: Introduction | 1 |
| Chapter 2: Literature Review | 6 |
| Effects of Prison Program Participation | 6 |
| Differences Across Programs | 10 |
| Prison Programs, Misconduct, and Race and Ethnicity | 14 |
| Chapter 3: Theory and Hypotheses..... | 20 |
| Hypotheses | 29 |
| Chapter 4: Data and Methods | 31 |
| Data Source | 31 |
| Measures..... | 33 |
| Dependent Variable | 33 |
| Independent Variables | 34 |
| Control Variables | 37 |
| Methods..... | 39 |
| Chapter 5: Results | 42 |
| Descriptive Statistics..... | 42 |
| Is Program Participation Related to Committing Disciplinary Infractions? | 43 |
| Does the level of involvement in prison programs relate to committing disciplinary infractions? | 45 |
| Do different types of prison programs have different effects on disciplinary infractions? | 46 |
| Is the association between participation in educational and vocational programming and disciplinary infractions contingent on race/ethnicity?..... | 48 |
| Is the relationship between participation in religious programming and disciplinary infractions contingent on race/ethnicity? | 50 |

Table of Contents Continued

| | |
|--|----|
| Chapter 6: Discussion and Conclusion | 52 |
| Tables | 60 |
| Appendices..... | 71 |
| Bibliography | 73 |

List of Tables

Table 1. Prior Utilizations of Survey of Inmates

Table 2. Descriptive Statistics

Table 3. Analysis of Missing Data

Table 4. Analysis of Missing Data on Dependent Variable

Table 5. Logistic Regression Results: Committed Any Type of Rule Violation

Table 6. Logistic Regression Results: Committed Any Type of Rule Violation
(Race/Ethnicity)

Table 7. Logistic Regression Results: Committed Violent Rule Violations

Table 8. Logistic Regression Results: Committed Nonviolent Rule Violations

Table 9. Within-Model Coefficient Testing Comparing Program Participation

List of Appendices

Appendix 1. Bivariate Results for Models 1-3

Appendix 2. Bivariate Results for Race/Ethnicity Models

Chapter 1: Introduction

Prison programs are one of the most important, humanizing services offered in correctional facilities. Prison programs provide inmates with a meaningful way to spend their time while incarcerated, develop important skill sets, and prepare for their future.

The benefits of prison programming are potentially far-reaching. For example, studies have explored the relationship between prison programming and self-image, prison misconduct, and recidivism (Gerber & Fritsch, 1995; Hall, 2015; Jiang et al., 2005; Thomas, 2012; Vacca, 2004). One of the most important benefits prison programming can offer is a reduction in prison misconduct. First, understanding how prison programming impacts prison misconduct can provide important policy insight. For example, continued analyses of the relationship between program participation and misconduct can help correctional facilities determine which programs should be delivered. Prison programming may enhance the safety and cost-effectiveness of correctional facilities by reducing prison misconduct. This should provide an environment more conducive to rehabilitation for incarcerated individuals, as exposure to victimization or coercive environments such as administrative segregation can affect an inmate's health and psychological wellbeing (Butler, 2019). Reducing prison misconduct within a facility also has the potential to reduce prison spending by limiting the number of inmates housed individually as punishment or increased staffing levels to enhance security (Butler, 2019). Providing inmates with a more rehabilitative prison experience through access to prison programming and reduced institutional misconduct can also lead

to reduced recidivism (Vacca, 2004). By reducing recidivism, prison programs increase public safety and decrease the amount of money taxpayers spend on corrections.

Recognizing the overall benefits of prison programming on inmates, correctional facilities, and society is important, but it is crucial to understand how different individual characteristics may contribute to one's experience. When analyzing program effectiveness, it is important to consider participant racial and ethnic identities and the possibility that some programs are more beneficial for racial and ethnic minorities. Research that explores differential effects of program participation contingent on participant race and ethnicity can provide additional information about the benefits of prison programs and illustrate if certain programs are more beneficial for some groups compared to others. This is especially relevant because minority individuals are incarcerated at far higher rates than white individuals in the United States (Carlson, 2018). Much research exists examining inmate racial and ethnic identity and the relationship with prison misconduct (Bonner et al., 2017; Camp et al., 2003; Harer & Steffensmeier, 1996). However, the degree to which racial and ethnic identity impacts the relationship between program participation and misconduct remains unknown. In the following study, I examine the relationship between prison programming and misconduct, expanding prior literature by considering the number of programs, types of programs, and racial/ethnic differences.

Prior to analyzing the relationship between prison programming and prison misconduct, I will discuss several important terms and review the literature. I will explain why participation in different programs may lead to different outcomes, specifically how educational and vocational programs may be more beneficial than other types of

programming. I will then elaborate on how race and ethnicity are important considerations when reviewing criminal justice outcomes and are associated with different needs within the correctional population. I will then discuss how educational, vocational, and religious programming may be more beneficial for black and Latino inmates compared to white inmates due to different cultural norms, traditions, and different needs stemming from an unequal distribution of resources. Finally, I introduce three theories that serve as lenses by which to analyze these relationships: social control theory, routine activities theory, and social identity theory.

Using the Survey of Inmates in State Correctional Facilities, I intend to evaluate a series of relationships pertaining to prison programs and prison misconduct. The intentions of this study are as follows: First, I intend to establish the relationship between program participation generally and prison misconduct. Second, I will investigate whether the overall volume of programming matters for misconduct. I will then analyze the impact of educational and vocational programs on prison misconduct compared to other types of programming. Finally, this study will address a gap in the literature by evaluating the effects of prison programming on disciplinary infractions as moderated by inmate race and ethnicity. Specifically, I analyze whether participation in educational, vocational, and religious programming have differential effects on prison misconduct across race and ethnicity.

Programs typically offered within correctional facilities include educational, vocational, religious, life skills, mental health treatment, substance use disorder treatment, reentry, and inmate services programs. Educational programs typically consist of options such as basic literacy and GED courses, postsecondary educational

opportunities such as college courses, and English as a second language courses (Prison Fellowship, 2020). Vocational programs offer skills training and trade certifications in fields such as plumbing, welding, electric work, culinary service, and heating cooling and ventilation (Prison Fellowship, 2020). Religious programs include watching religious television, individual and group prayer, attending religious services, and religious literature study groups (Becci & Dubler, 2017). Life skills programming includes topics such as anger management courses, setting and achieving goals, healthy relationships, and addressing criminal thinking (Prison Fellowship, 2020). Mental health treatment includes individual and group counseling, hospitalization, medication administration, and inpatient treatment programs (Survey of Inmates in State Correctional Facilities, 2004). Substance use disorder treatment consists of individual and group counseling, inpatient treatment programs, medication management, and 12-step or AA/NA meetings (Department of Justice, 2017; Meyer et al., 2014). Reentry services consist of family reunification programs, informational courses on parole and probation, and resume writing (Department of Justice, 2017; Prison Fellowship, 2020). Prisons and non-profit organizations often work together to offer coordinate applications for social security cards, birth certificates, and state identification cards. Non-profit organizations and employers often visit reentry courses to advertise the opportunities available for individuals recently released from incarceration to include employment, housing, educational, and treatment opportunities. All of these programs are critically important to inmate success during incarceration and after release.

The majority of the aforementioned programs are voluntary, meaning that incarcerated individuals elect to participate in the prison programs available to them.

There are incentives to participate in prison programs, such as early release from incarceration, avoiding boredom, interaction with female volunteers and staff, and in the case of programs like religious meetings and AA/NA, access to snacks (Brosens et al., 2015; Meade, 2014). There are also situations in which program participation is mandated. For example, many correctional facilities require that inmates participate in reentry programming to better prepare them for their upcoming release. Individuals may also be ordered by the court to complete programs during their period of incarceration, such as substance use disorder treatment, mental health treatment, or obtain a GED. Alternatively, some inmates may be restricted from program participation based on prison administrator decisions, or in the case of educational and vocational programs, low entrance exam scores or inability to pay for tuition.

Chapter 2: Literature Review

Effects of Prison Program Participation

Prior literature demonstrates overall that prison programs are beneficial for participants. The effects of prison programs can impact the individual participants, the correctional facility, and more broadly, society. Existing research notes the impacts of prison programs on participants include positive psychological changes (Clark & Rydberg, 2016; Evans et al., 2018; Hall, 2015; Meyer, 2011; Thomas, 2012; Vacca, 2004), changes in prison misconduct (Clark & Rydberg, 2016; Gerber & Fritsch, 1995; Rose, 2004), and recidivism rates (Hall, 2015; Nally et al., 2012; Vacca, 2004). Benefits reported as a result of prison programming include increased social support, confidence, self-worth, and conflict resolution capabilities (Clark & Rydberg, 2016; Evans et al., 2018; Thomas, 2012; Vacca, 2004).

One of the major impacts of program participation is the development of social support networks (Clark & Rydberg, 2016). Thomas (2012) found that program participation led to expanded social perception for inmates, allowing them to be more open-minded and accepting of the individuals they interact with. This can include improved relationships between inmates, between staff and inmates, the development of positive peer role models, and improved family relationships (Meyer, 2011; Thomas, 2012). These psychological benefits also seem to impact inmate behavior.

Inmates often desire to have a way to occupy their time during their sentence, and a lack of programming can lead to institutional rises in misconduct (Rose, 2004). Inmates with unmet needs are also more likely to engage in misconduct (Chamberlain, 2012). Inmate mental health and physical health are particularly important predictors of prison

misconduct. Inmates with untreated mental health or substance abuse needs are more likely to be involved in prison misconduct (Chamberlain, 2012; Henry, 2020).

Additionally, acute and chronic physical health issues increase the likelihood of being involved in prison misconduct (Grosholz, 2018). To understand the impact of prison programming, it is most common to review specific categories of programming and their relationship with prison misconduct. This is consistent with findings of an inverse relationship with misconduct when inmates have access to programs they are interested in as well as programs that help them meet their needs while incarcerated (Chamberlain, 2012; Rose, 2004).

There are existing studies that examine the impact of prison programming on prison misconduct using the Survey of Inmates in State Correctional Facilities (SISCF) data. Four studies in particular, Meade (2018), Jiang et al. (2005), Clark and Rydberg (2016), and Chamberlain (2012) all examine related topics to the current study and lead to results that warrant further investigation (Table 1).

Meade (2018) uses the 2004 Survey of Inmates in State Correctional Facilities to analyze the relationship between religious participation and prison misconduct. Meade found that the number of hours spent engaged in religious activities was significantly associated with lower prevalence and incidence of assaults in a matched sample, but not to any forms of nonviolent misconduct (2018). Jiang and colleagues (2005) utilize the 1997 SISCF dataset to measure the relationship between monthly incidences of prison misconduct and participation in religious or vocational programs. This study found that participation in vocational programs was associated with an increase in the rate of monthly violent misconduct but was not significantly related to overall misconduct or

drug or property offenses. Alternatively, religious programming was found to be significantly related to a decrease in the rates of monthly violent misconduct, overall misconduct, and drug or property offenses (Jiang et al., 2005). Clark and Rydberg (2016) used the SISCf 2004 to evaluate the relationship between different types of educational programming and prison misconduct for inmates and found that individuals who had participated in these educational programs were more likely to engage in misconduct than nonparticipants. Participants who completed a GED program had a significant, positive relationship with property and “other” offenses, while college participants were more likely to commit a physical assault against staff or another inmate (2016). Chamberlain (2012) utilizes the SISCf 1991, 1997, and 2004 datasets to evaluate the changes in criminogenic needs over time and how unaddressed needs may impact institutional behavior. Chamberlain found that the service needs of inmates have changed between 1991 and 2004, and individuals with educational and employment needs were less likely to be matched to programming than inmates with substance use disorders (2012). She argues that inmates with unmet needs are more likely to engage in misconduct, and that making greater efforts to meet inmate needs may reduce institutional violence (Chamberlain, 2012).

The analysis of prison programming and prison misconduct is broad and varied in nature. While the consensus of the literature overall is that prison programming is associated with many benefits, there are some studies that find a positive association between prison program participation and prison misconduct. Namely, Clark and Rydberg and Jiang and colleagues find that participation in educational and vocational programs have positive associations with misconduct (2016; 2005). As this study intends

to replicate prior work, it is important to acknowledge the possibility of prison program participation having a positive association with misconduct, particularly since the present study uses the same survey as the Clark and Rydberg study (2016).

There are several possibilities for why participation in prison programming may be associated with a higher likelihood of misconduct, as suggested by extant literature. Facilitators of certain prison programs, such as vocational programming, may be more strict than other facilitators because the program participants have access to tools that could be used as weapons (Jiang et al., 2005). Instructors may issue disciplinary infractions when very minor instances of misconduct occur, which may be a means of preventing misconduct from escalating (Jiang et al., 2005). Program participation can also explain an increased likelihood of misconduct because participants can receive disciplinary infractions for not attending class or being late to class, which results in a higher likelihood of misconduct for program participants only (Clark & Rydberg, 2016).

It is also possible that program participants engage in misconduct because of opportunities that arise as a result of their participation (Cohen & Felson, 1979). Studies show that despite the benefits of involvement in conventional activities, participation in conventional activities is associated with minor misconduct such as property crime (Horney et al., 1995). It is possible that this association arises from the opportunistic nature of programs, which expose participants to other inmates, staff, and other areas of the prison.

One consistency throughout the literature is that the impact of prison programming on prison misconduct for individuals of differing racial and ethnic identities remains unknown. While the literature offers many examples of how prison

program participation may influence misconduct, or how one's racial or ethnic identity is related to misconduct, there is no consensus on how prison program participation can have differential effects on prison misconduct based on the participant's racial and ethnic identity. This is a significant gap in the literature that will be addressed by the present study. Additionally, prior work did not control for many variables that may bias the relationship between program participation and prison misconduct, such as time served, mental health diagnosis, and criminal history. This study will include a wider array of control variables to better address potential spuriousness present in this relationship. Overall, this study intends to better explain the link between prison program participation and prison misconduct while accounting for the impact one's racial and ethnic identity may have on this relationship.

Differences across Programs

Much research focuses on the variety of benefits associated with prison program participation. Quantitative studies tend to discuss reduced levels of prison misconduct or recidivism (Bozick et al., 2018; Clark & Rydberg, 2016; Jiang et al., 2005; Nally et al., 2012; Vacca, 2004). The results of these studies typically indicate that prison program participation reduces most types of prison misconduct, but a few studies find that program participation may increase or have no effect on some types of misconduct (Clark & Rydberg, 2016; Gerber & Fritsch, 1995; Jiang et al., 2005). Qualitative studies find that program participants report increased self-esteem, conflict resolution capabilities, social support, improved family relationships, improved mental health, and the feeling of using their time productively while incarcerated (Brosens et al., 2015; Evans et al., 2018; Krause, 2016; Tabak & Mickelson, 2009; Thomas, 2012). While programs overall tend to

have a positive impact on the participants, it is possible that some programs are more beneficial than others.

Educational and vocational programs are said to have many benefits ranging from psychological benefits, reduced misconduct, and reduced recidivism (Gerber & Fritsch, 1995; Hall, 2015; Jiang et al., 2005; Nally et al., 2012; Vacca, 2004). Educational and vocational programs may be more beneficial than other programs for a number of reasons. First, these programs take up a considerable amount of time and energy to complete. Additionally, they provide program participants with a practical skill set and certification that can make them more likely to succeed upon release (Case & Fassenfest, 2004; Evans et al., 2018; Tewksbery & Stengel, 2006; Thomas, 2012; & Vacca, 2004). There may be additional incentives to participate in these programs that also discourage rule violations to ensure the individual may remain eligible for program participation, such as early release from incarceration (Brosens et al., 2015). Inmates may have a variety of motivations to participate in educational and vocational programs in addition to early release, such as psychological benefits, a more rehabilitative prison experience, and better outcomes upon release from incarceration.

Participation in educational and vocational programs improve skill building and educational achievement and is also associated with increased self-esteem and self-confidence (Clark & Rydberg, 2016; Evans et al., 2018; Thomas, 2012). Other psychological benefits of educational and vocational program participation that are particularly relevant to the prison experience include conflict resolution and problem-solving skills, critical thinking and coping skills, and the ability to develop and maintain routines (Clark & Rydberg, 2016; Evans et al., 2018; Thomas, 2012). The development

of these skills can be connected to successful adaptation to prison life and future success in the community. Hancock and Sharp found that in a maximum-security prison, an increase in self-esteem was only evident upon completion of programs, not when assessing what skills the individual has acquired (1993). These results may be associated with the security level of the inmate or the crime they committed, both of which can impact self-esteem (Evans et al., 2018). This does not necessarily indicate that the aforementioned psychological benefits were not obtained in the process.

Educational and vocational programs are frequently cited for their positive impact on inmates and are considered to be a major contributor to reduced prison misconduct (Case & Fasnacht, 2004; Evans et al., 2018; Gerber & Fritsch, 1995; Jiang et al., 2005). Findings typically support the idea that participation in educational programming reduces prison misconduct, and some studies analyze the impact of specific programs such as literacy courses or GED classes within the education category (Courtney, 2019). The majority of studies reviewed found that participation in educational and vocational programming was associated with lower levels of prison misconduct, but a few studies offered different results (Case & Fasnacht, 2004; Courtney, 2019; Evans et al., 2018; Gerber & Fritsch, 1995). For example, Clark and Rydberg (2016) found that participation in any type of educational program is associated with increased prison misconduct. Additionally, Gerber and Fritsch's review of the literature determined that while the relationship between educational program participation and prison misconduct is inconclusive, the relationship between vocational program participation and prison misconduct is significant and negative (1995). This is contrary to findings that participation in vocational programming leads to an increase in violent prison misconduct

but is unrelated to overall misconduct, drug violations, and property violations (Jiang et al., 2005). It is possible that these inconsistent findings are influenced by individual characteristics, institutional characteristics, or the data used. While these findings contribute to the field and provide information about some possible trends in programming and misconduct, they are not consistent with the vast majority of the literature which finds educational and vocational programming to be significantly related to a reduction in prison misconduct.

Educational and vocational programs are also associated with reduced recidivism (Hall, 2015; Meyer, 2011; Nally et al., 2012; Vacca, 2004). This means that individuals who participate in prison programs, particularly educational and vocational programs, are less likely to return to prison than individuals who do not participate in prison programming. Inmates who participate in educational and vocational programs are between 30%-70% less likely to return to prison than individuals who did not participate in these programs (Bozick et al., 2018; Nally et al., 2012, Vacca, 2004). Reduced recidivism rates illustrate that the impact of educational and vocational programming is long term and can positively impact program participants and society.

The majority of studies analyzing the impact prison programs find an inverse association with prison misconduct and recidivism. Despite prior findings of an association between educational and vocational programming and misconduct, , the literature reveals an optimistic pattern, though it exposes an important gap this study will address. This study investigates whether the relationship between program participation and misconduct varies across race and ethnicity for certain types of programming – specifically educational, vocational, and religious programming – which could

theoretically exert differential impacts across groups. In the next section, I discuss relevant literature informing this research question.

Prison Programs, Misconduct, and Race & Ethnicity

Race and ethnicity are important considerations when analyzing trends in prison program participation and misconduct. Reports on demographic information of inmates in the United States consistently indicate black and Latino individuals are incarcerated at higher rates than white individuals (Carlson, 2018; Eppler Epstein, 2016). Race and ethnicity are not only relevant because of the disparate amount of minority inmates who are incarcerated; these characteristics serve as lenses by which to interpret interactions and outcomes within the justice system. Race and ethnicity are too commonly used simply as control variables, but these are characteristics that interact with and influence one's surroundings (Upadhyayula et al., 2017). Specifically, this study identifies educational, vocational, and religious programs in correctional facilities as likely to have differential effects on the average black or Latino inmate in comparison to the average white inmate.

It is plausible that participation in prison programming can have a differential effect on black and Latino individuals compared with white individuals as a result of differential needs. Neighborhoods across the United States are still overwhelmingly segregated by race, and minority neighborhoods are more likely to suffer from greater levels of disadvantage than white neighborhoods (Peterson & Krivo, 2010). Not only does socioeconomic disadvantage impact each individual person and family unit, it also has an impact on the quality of the resources offered in the neighborhood. Disadvantage in neighborhoods also impacts the quality of the local public schools, the type and

quantity of local businesses, and the types of government and nonprofit assistance offered in these areas (Ewert et al., 2014; Peterson & Krivo, 2010). This imbalance of resources is notable within the general population and is even more pronounced within the incarcerated population (Ewert et al., 2014). This leads to individuals of different races and ethnicities having different needs while incarcerated. For example, individuals of different races and ethnicities may require drug treatment, mental health treatment, educational programming, or vocational programming at different rates (Case & Fassenfest, 2004; Mann et al., 2013). Mass incarceration has made these differing needs more pronounced as well. Chamberlain analyzed the 1991, 1997, and 2004 Survey of Inmates datasets and found that as the incarcerated population grew, the needs of the incarcerated population changed over time (2012). There were also substantial differences in what types of needs were more likely to be met, for example, individuals who required substance use disorder treatment were more likely to be matched with treatment than were individuals who required educational or vocational training (Chamberlain, 2012). When surveyed, black inmates tend to express needs for educational programs, vocational programs, family counseling, and parenting classes more frequently than white inmates (Brandon et al., 1999; Mann et al., 2013). Latino inmates have cited the need for educational programs, employment training, and culturally sensitive mental health treatment (Ruddell & Ortiz, 2012). Research has shown that inmates whose needs are met by prison programs have better health and misconduct outcomes (Chamberlain, 2012; Henry, 2020). It is possible that differing services needs across racial and ethnic groups lead to different outcomes after participating in prison programs for incarcerated individuals.

One of the most notable outcomes of the disparity in community disadvantage is educational achievement (Ewert et al., 2014; Peterson & Krivo, 2010). Segregated neighborhoods often lead to significantly lower educational achievement by black and Latino individuals (Ewert et al., 2014). These disparities are even more pronounced among the incarcerated population. Estimates of educational achievement that exclude incarcerated individuals from the sample have been found to underestimate racial inequalities in educational achievement by as much as 48% (Ewert et al., 2014). The correctional population overall tends to have lower levels of educational achievement than the general public, particularly the black and Latino incarcerated population (Wolf Harlow, 2003). Black and Latino inmates are less likely to have a high school diploma or GED than non-incarcerated Black and Latino individuals or white inmates, and black and Latino inmates have lower levels of literacy than do white inmates (Ewert et al., 2014; Greenberg et al., 2007; Wolf Harlow, 2003). These disparities in both opportunities and achievement can explain differential involvement in educational and vocational programs by black and Latino inmates. These disparities can also lead to educational and vocational programs having differential effects based on racial or ethnic identity. For example, an inmate's prior life experiences may impact what programs they participate in and how they comport themselves in those programs. A survey of inmates found that white inmates were more likely to believe a college degree would benefit them most upon release, whereas black inmates opted for vocational programming, indicating that tangible job skills were more useful in the job market than college coursework (Case & Fassenfast, 2004; Nowotny et al., 2016). This is consistent with other qualitative and quantitative studies which have illustrated the additional hardship a criminal records

poses during a job search for Latino and black individuals (Paat et al., 2017; Pager et al., 2009).

Educational and vocational programs are not the only programs that can have a differential effect across racial and ethnic groups. Benefits of religious involvement are studied often throughout the fields of criminology, sociology, and psychology. Religious program participation in prisons includes individual prayer, watching religious television, attending religious classes or services, and intensive treatment models where the entire unit is modeled around religious programming (Camp et al., 2006, Kerley et al., 2011). Religious services are considered a constitutional right during incarceration and inmates must be provided with reasonable opportunities to practice their religion (Meade, 2014).

Religious programs in prisons are shown to improve mental and physical health, provide an opportunity to be a part of a social community, and provide mentoring services to inmates (Camp et al., 2006). The quality of one's health is particularly relevant in correctional facilities. Poor mental and physical health can lead to increased misconduct or victimization (Butler, 2019; Henry, 2020). Religious programs can provide a means of improving mental health by buffering the effects of discrimination, increasing general well-being, enhancing self-esteem, and improving life satisfaction (Ai et al., 2014; Tabak & Mickelson, 2009; Sternthal et al., 2012).

Other important benefits include increased spiritual and emotional support from fellow congregants and the prevalence of reciprocal support networks (Krause, 2015; Taylor et al., 2016). These are all important indicators of mental health that also ease the adjustment to prison life. Additionally, religious program attendance is associated with lower odds of hypertension for black attendees, compared to individuals who do not

attend religious services (Bell et al., 2012). Because of religious involvement's correlation with improved mental health and physical health outcomes, it may serve as a means of preventing prison misconduct within correctional facilities.

Religious programming is one of the most frequently offered programs in correctional facilities (Becci & Dubler, 2017; Camp et al., 2006; Cretacci, 2003; Kerley et al., 2011). Religious program participation discourages risky or dangerous behavior in the community and in the prison environment (Meade, 2014; Tabak & Mickelson, 2009). Religious program participants are also less likely to engage in prison misconduct while incarcerated (Jiang et al., 2005; Meade, 2014). Overall, religious programming appears to be beneficial for incarcerated individuals and has the potential to reduce some forms of prison misconduct.

There is reason to believe the impact of religious programming varies across race and ethnicity. The impact and meaning of religion vary across culture and tradition. Black churches are rooted in the traditional spirituality of African slaves engaging in Southern Christianity. Initially, the black church was one of very few places that a black man could be a leader in the community (Zuckerman, 2002). Over time, black churches have become social institutions, civil rights hubs, charitable organizations, nursing homes, educational facilities, and more (Barnes, 2014; Du Bois, 1967; Wortham, 2009; Zuckerman, 2002). Similar to the black church, the initial introduction of Catholicism to Latino culture was involuntary. Catholicism was introduced to the Latino culture by Spanish "conquistadors" more than 400 years ago (Martinez, 2002). Over time, Latino churches emphasize a social community, advocacy for disadvantaged community members, including social support for new immigrants and assistance with immigration

processes (Marti, 2015; Tabak & Mickelson, 2009). Because of the initial involuntary nature of participation in religious groups, participation in religious programs may be more intertwined with black and Latino cultures and traditions. Religion tends to be more central to black and Latino individuals, and black and Latino religious organizations are more engaged in providing social services (Noy & O'Brien, 2018; Tabak & Mickelson, 2009). The deeply rooted traditions of obtaining services and having a social outlet through religious organizations is more ingrained for black and Latino populations than for white individuals. These patterns are likely consistent within correctional facilities as well. Black and Latino individuals may be more likely to seek out services through religious programs in prison because the religious organizations they engage with in the community are likely to provide these services. The level of religiosity reported by black and Latino individuals is positively related to quality of mental health compared to white individuals, signaling that religion may be more beneficial in the lives of black and Latino individuals than white individuals (Ford, 2006; Tabak & Mickelson, 2009). The benefits of religious participation for black and Latino individuals are unique culturally and traditionally, and may make one's incarceration experience more manageable.

Chapter 3: Theory and Hypotheses

This study mainly uses social control theory and routine activities theory to inform hypotheses on the relationship between prison program participation and prison misconduct. Additionally, the study draws on social identity theory to inform hypotheses regarding the potential moderating influence of race in this relationship. This study does not test these theories directly, but draws on them to make theoretical predictions.

Hirschi's Social Control Theory can be utilized to understand why participation in programming is related to prison misconduct. Hirschi (1969) theorizes that delinquency is more likely to occur when one's social bonds are weakened. Therefore, the stronger bonds one has to conventional organizations, the less likely the individual is to engage in delinquency. Based on the elements of social control theory, program participation should reduce prison misconduct, since it should be reflective of inmates being involved in conventional activities.¹ Further, Wooldredge and colleagues (2001) expanded the use of social control theory to explain misconduct in correctional facilities. Based on Wooldredge's (2001) expansion of social control theory to explain social bonds within correctional facilities, creating opportunities for structured socialization through prison programming should result in reduced prison misconduct. Program participants may develop strong bonds with other participants and program facilitators resulting in direct and indirect controls (Wooldredge et al., 2001). An example of direct control

¹Initially, Hirschi's social control theory was developed to explain juvenile delinquency. It has since been used to inform studies about adult delinquency, including prison misconduct (Alaried et al., 2000; Apel & Horney, 2017; Osgood et al., 1996).

would be supervision by the program facilitator, where as an example of indirect control would be the internalization of values based on these attachments. Involvement is an important element to the relationship between prison programming and misconduct. Program participation is typically voluntary and can take up a considerable amount of one's time (Meyer, 2011). The more time an individual spends engaged in prison programming, the fewer opportunities they have to be involved in unstructured socializing, a major predictor of delinquency (Hirschi, 1969).

Additionally, the lens of social control theory can be used to make predictions about the likely effects of specific programs. Participants of educational and vocational programs may have increased interactions with peers and program facilitators, making the development of social bonds more likely. Also, educational and vocational programs are more time intensive than other programs, thus social control theory would predict that participants are less likely to engage in unstructured socializing and delinquency (Hirschi, 1969; Vuk & Dolezal, 2019). Because educational and vocational programming tend to occupy participants for more time than other types of programs, it makes sense that these programs would have a greater effect on reducing prison misconduct than others. In addition to the amount of time the actual classes involve, educational and vocational programs promote responsibility, accountability, and self-motivation to complete scheduled tasks such as homework or skills tests (Meyer, 2011). The responsibilities program participants must complete outside of their scheduled time in the program are indicative of commitment. Tasks outside of scheduled program hours should reduce the amount of time one has to engage in prison misconduct. Educational and vocational program participants may be less likely to engage in prison misconduct as they have more

to lose as a result of the large time commitment. In sum, individuals who engage in these types of programs dedicate much time and effort towards their participation and success and social control theory would predict that these programs have a negative relationship to prison misconduct.

The relationship between program participation and misconduct may also be understood by considering opportunistic factors. Routine activities theory therefore complements social control theory to potentially explain differences in prison misconduct across those who do, or do not, participate in prison programs. Routine activities theory predicts that participation in prison programming can lead to a positive or negative change in misconduct. Routine activities theory posits that crime occurs when a motivated offender, a suitable target, and the absence of a capable guardian all converge in time and space (Cohen & Felson, 1979). Because program participation may put participants in contact with other inmates, staff, and volunteers, their exposure to suitable targets is likely increased (Cohen & Felson, 1979; Osgood et al., 1996). This may result in a positive association between prison program participation and misconduct. This is especially true if the individual is engaged in many different types of programming.

Supervision is an important consideration when discussing prison misconduct. Routine activities theory suggests a capable guardian must be present to prevent delinquency (Cohen & Felson, 1979). There is no guarantee that any of the program facilitators will be capable guardians (McEvoy, 2013; Osgood et al., 1996). For example, some civilian employees with limited security awareness in comparison to correctional officers may not be able to prevent the occurrence of prison misconduct. Additionally, volunteers or interns with limited training or experience may not be able to prevent

delinquency from occurring even if there are officers nearby. Correctional officers may become complacent in their security checks, or disregard minor rule violations that do not overtly violate security protocols (McEvoy, 2013). Any of these possibilities make an opportunity to engage in misconduct more likely. An example discussed in the literature is gambling, which is against institutional rules in most facilities. Officers may ignore inmates who are gambling, whether it be while playing a card game or betting on sports outcomes, because it is something that the inmates enjoy that keeps them busy (McEvoy, 2013). It is also possible that the presence of supervision could lead to an increased likelihood of misconduct, as there are more correctional officers present to catch rule violations and issue disciplinary infractions.

Routine activities theory can also be applied to understand how program participation can lead to increased misconduct by reviewing one of the examples noted by Cohen and Felson of increased home burglaries as women entered the workforce (1979). With program participants leaving their cells more frequently than if they were not engaged in programs, this may make them or their property more likely to be victimized. Therefore, routine activities theory could posit that program participation may increase misconduct not only because the program participants have more opportunities to engage in misconduct, but also because the program participants are more exposed to the potential for victimization. Alternatively, routine activity theory emphasizes the amount of one's time that is occupied by conventional activities. Routine activity theory also suggests that when inmates spend the majority of their time involved in prison programming, they have less time to engage in delinquent behavior (Agnew & Peterson, 1989; Cohen & Felson, 1979; Osgood et al., 1996). It is also possible that if individuals

are involved in prison programming, they are more likely to be exposed to supervision. Increased interactions with correctional staff may deter program participants from engaging in misconduct. Further, if an individual is engaged in programs that require reading, homework, or other activities outside of the time dedicated to in-person programming, it is possible that these individuals are too busy and focused to participate in misconduct. To summarize, routine activities theory predicts program participation can increase misconduct by increasing opportunities for delinquency, or alternatively, reduce misconduct by increasing involvement in conventional activities.

Routine activities theory also helps us understand why educational and vocational programming may reduce prison misconduct more strongly than other types of programs. In accordance with this theory, the amount of time spent engaged in conventional activities is a critical predictor of delinquency or misconduct. Routine activities theory applies to educational and vocational programs and the reduction of misconduct due to the time commitment required by these programs. As discussed previously, educational and vocational programs consist of long hours of in-person coursework, plus homework, reading, and studying. Because these programs require a heavy time commitment, routine activity theory would posit that the participants have less time to engage in prison misconduct (Agnew & Peterson, 1989; Cohen & Felson, 1979; Osgood et al., 1996). Program participants may be too busy during the actual program and have program-related responsibilities during the remainder of the day to engage in delinquency. Including the possibility of opportunistic crimes enhances our understanding of how program participation may impact prison misconduct generally.

Educational and vocational programs can have differential effects on prison misconduct for individuals of different races and ethnicities. Routine activities theory would posit that because black and Latino individuals are more likely to have a greater need for these programs compared to white individuals, their participation in these programs would result in reduced prison misconduct. Programs in this category take up a considerable amount of time, and black and Latino inmates are more likely to have to participate in basic education courses, GED coursework, and English as a Second Language programs (Ewert et al., 2014; Wolf Harlow, 2003). Oftentimes, completion of these programs is a prerequisite to participation in other programs, such as vocational or college coursework (Gardner, 2014). Most educational and vocational program participation is voluntary, and studies have indicated that there are racial and ethnic differences in the preference for certain programs. White inmates are more likely to participate in college coursework, while black and Latino inmates are more likely to seek vocational certification, citing better employment opportunities upon release (Case & Fassenfest, 2004). The inequalities in educational achievement may explain why black and Latino inmates are more likely to participate in educational and vocational programs, but their participation in these programs is still voluntary. Routine activities theory would posit that black and Latino inmates that participate in educational and vocational programs have more coursework available to them on average, and thus are less likely to engage in rule violations. In order to further understand how race and ethnicity may impact institutional behavior, it is important to look at theories that consider group membership such as social identity theory.

While this study mostly draws on routine activities and social control theories, social identity theory may also provide some insight, specifically into how the effects of program participation may vary across race/ethnicity. Social identity theory was developed by Henri Tajfel, and later modified by John Turner, as a means of explaining conflict between groups. Conflict is especially likely between groups when there is social stratification that creates an impression of groups being “better” or “worse” than others (Tajfel & Turner, 1970). Social stratification can result in group members striving to achieve a positive social identity for themselves or their group and creating favorable comparisons within their group. In situations where a group is believed to be inferior, the inferior group is theorized to reposition the status of themselves or their group within the hierarchy, thus resolving the conflict. There are three ways for this to occur. Mobility resolves the conflict because the individual leaves the inferior group. Social creativity is when the members of the inferior group compare the in and out groups in a new dimension, such as changing the values of their in-group or changing which out-group they are compared to. Finally, social competition can ultimately reduce conflict if the positions of the groups are reversed (Tajfel & Turner, 1970).

Social identity theory applies to this analysis because it discusses the internalization of one’s group membership. Group membership is important in determining an individual’s self-identity and is especially relevant when there is social stratification based on class or race (Tajfel & Turner, 2004). Racial and ethnic identity can lead to intergroup conflict, especially within a prison setting (Upadhyayula et al., 2017). Religious program participation, or religiosity, would be the mechanism by which

individuals of minority races and ethnicity engage in “social creativity” to change the values of their in-group, thus changing the label of inferiority.

Religious programming may offer a place of belonging for black and Latino individuals to form strong attachments to other program participants as well as religious leaders while incarcerated. Groups that support one’s racial, cultural, or ethnic identity can promote attachment to others as well as buffer the effects of discrimination (Ai et al., 2014; Outten et al., 2009). This sense of community, especially when it creates a positive self-image for participants, is likely to reduce conflict between the in-group and out-group members (Tajfel & Turner, 2004). As previously indicated, religion is especially important to black and Latino individuals and one’s religious group membership may be internalized and impact one’s self-identity. Churches are major social institutions within the black and Latino communities, and black and Latino individuals report higher rates of church attendance and religious behaviors than white individuals (Krause, 2015; Noy & O’Brien, 2018; Tabak & Mickelson, 2009; Sternthal et al., 2012). This is consistent with patterns throughout history. While these programs certainly exist in white churches, their role in the community is less engrained and relied upon by community members (Tabak & Mickelson, 2009). Based on social identity theory, members of black and Latino churches may be more likely to rely on religious organizations and turn to religious organizations to obtain services than the average white individual, regardless of whether the person is incarcerated. Religious programming in prisons provides fewer services than religious organizations in the community, but religious services such as mentoring, counseling, and study are related to reductions in prison misconduct (Jiang et al., 2005).

Social identity theory therefore informs a hypothesis of differential effects of religious participation and membership on minority individuals compared to white individuals. The impact of religious services for minority individuals, specifically seeing oneself as a member of a positive community, has benefits that exist both within and outside prison walls (Hedges, 2014; Jackson & Giles, 2009). Based on this theory, the association between religious programming should be negative and stronger for black and Latino individuals than it is for white individuals.

Attachment is a relevant component of both social identity theory and social control theory. As explained by social identity theory, attachments are especially important in determining the impact of social group membership (Hedges, 2014). When an individual has positive attachments with in-group members, they are able to internalize this group membership to form a positive self-identity (Tajfel & Turner, 2004). Per social control theory, group membership and the attachment to other group members operate as indirect controls. In a prison environment, indirect controls discourage individuals from engaging in prison misconduct due to socially ingrained norms that encourage conformity to the rules (Wooldredge et al., 2001). These attachments to others are clear indicators of strong social bonds and the relevance of group membership while incarcerated and the strong bonds that flourish within social organizations are particularly palpable in religious programming. Based on social identity theory and social control theory, black and Latino individuals who participate in religious programming should be less likely to engage in prison misconduct than white religious program participants.

There are a variety of ways to explain how prison program participation may impact institutional misconduct, depending on the type of program and the participant's characteristics. This study utilizes social control theory and routine activities theory to inform the hypotheses surrounding any participation in prison programs, the number of prison programs an inmate has participated in, and participation in educational and vocational programs in relation to prison misconduct. Social identity theory informs the hypothesis that race and ethnicity may moderate the relationship between religious programming and institutional misconduct. In the next section, I discuss this study's hypotheses more specifically and how the data will be analyzed.

Hypotheses

I first examine the relationship between any prison program involvement and committing disciplinary infractions. Second, I examine the relationship between the level of program involvement, specifically the number of types of programs an individual participated in, and the committing disciplinary infractions. Third, I examine whether the association differs for vocational and educational programming compared to involvement in other types. Fourth, I examine the relationship between educational and vocational program participation and committing disciplinary infractions as moderated by race and ethnicity. Finally, I examine the relationship between religious program participation and committing disciplinary infractions as moderated by race and ethnicity. Specifically, I lay out the following hypotheses:

Hypothesis 1: Program participation in correctional facilities is related (+/-) to committing disciplinary infractions while incarcerated.

Hypothesis 2: Level of involvement in programs is related (+/-) to committing disciplinary infractions while incarcerated.

Hypothesis 3: Educational and vocational programs have the strongest negative relationship with committing disciplinary infractions while incarcerated.

Hypothesis 4: Participation in educational and vocational programming has a stronger negative relationship with committing disciplinary infractions while incarcerated for black and Latino inmates compared to white inmates.

Hypothesis 5: Participation in religious programming has a stronger negative relationship with committing disciplinary infractions while incarcerated for black and Latino inmates compared to white inmates.

Chapter 4: Data and Methods

Data Source

This study uses the 2004 Survey of Inmates in State Correctional Facilities (SISCF) data set to estimate the relationship between prison program participation and disciplinary infractions. SISCF is conducted by the Bureau of the Census for the Bureau of Justice Statistics (BJS). It is a cross-sectional dataset which provides nationally representative data for all inmates held in state correctional facilities. Individual inmates were interviewed in person using computer-assisted personal interviews (CAPI) between October 2003 and May 2004 regarding their current offense and sentence, criminal history, family background, demographic information, prior substance use and treatment, weapon possession and use, and prison programs and activities. All data in the SISCF are self-reported and were not checked against any official administrative records. The total number of individuals sampled and interviewed in SISCF is (N=14,499).

There are a handful of issues with this sample that need to be discussed. Respondents failed to answer some of the questions pertinent to this study, resulting in missing data for 20.15% of the total sample. There is potential for bias within this sample as we do not know why the individuals refused to participate or did not answer specific questions. One factor influencing non-sampling variability is the quality of survey responses. The responses may have been impacted by satisficing, or differences in understanding the definitions of terminology within the question or interpreting the question. There is also the issue of selection bias, as participation in most prison programs is voluntary and there may be individual characteristics that are correlated with both program participation and not receiving disciplinary infractions. Also, the data about

this sample is collected by self-report. The information gathered is not cross-referenced against any formal administrative records. While this is a benefit because it can provide a greater depth of information than official records, it also relies on the respondents' ability and willingness to recall and provide correct information. If the respondents for some reason are unable to provide accurate information or answer the questions appropriately, this will potentially bias the information collected and impact future studies. This issue is related to the discussion of self-report delinquency versus arrest rates, which has been a topic of discussion and analysis in criminology for years. Empirical studies have found that individuals tend to be more consistent reporting general aspects of their criminal histories (i.e. if they have been arrested, have been to jail, or have been to prison) but self-reports are less reliable when reporting specific, often stigmatized crimes such as drug arrests or arrests for violent crimes (Golub et al., 2002). Therefore, the same individual's level of truthfulness may vary throughout their survey responses.

I have conducted descriptive statistics as well as an analysis of missing data patterns for the variables in each of the proposed models (Table 2, Table 3, and Table 4). For the prison misconduct, program participation, program count, educational and vocational program participation, religious program participation, and hours spent in religious programming variables, I created dichotomous variables where "0" represents not missing and "1" represents missing data. I then ran logistic regression models in Stata for each of these dichotomous variables and measured the relationship to violent offense, time served, upcoming release, educational achievement, prior employment, mental health diagnosis, substance use disorder, race, ethnicity, marital status, age, and gender. The purpose of this analysis is to determine if there are any patterns in the missing data

that need to be addressed. The most noticeable pattern is that individuals who expect to be released from incarceration within the next twelve months are less likely to be missing data for the misconduct and all dichotomous program participation variables. Individuals with a mental health diagnosis and black individuals were more likely to be missing data for hours spent engaged in religious programming within the last week, but showed no significant relationship with missing data for any other variables of interest. Finally, there was a pattern of missing data for the dichotomous variables of program participation and participation in educational and vocational programs, as well as the number of programs that was related to the inmate's age. I interpret this to mean the older an inmate is, the more likely they are to have missing data for the aforementioned variables. An analysis of how program participation relates to missing data in prison misconduct reveals that individuals who participated in any prison programs, educational and vocational programs, and spent more time engaged in religious programming were more likely to be missing data for disciplinary infractions (Table 4). Cases with missing data for any of these variables are omitted and the remaining data are analyzed.

Measures

Dependent Variable

The dependent variable in this study is if the respondent has received any disciplinary infractions during their current period of incarceration. Prison misconduct consists of any form of rule violation within correctional facilities. The Survey of Inmates in State Correctional Facilities (SISCF) 2004 includes questions about several forms of prison misconduct, including drug use or possession, alcohol use or possession, weapon possession, possess stolen property, verbal assault on staff or inmates, physical assault on staff or inmates, escape, being out of place, and disobeying an order.

This is a dichotomous variable in which the subject indicates if he or she has ever been issued a disciplinary infraction since their current intake to prison, regardless of the outcome. It does not account for any rule violations where the individual was not issued a disciplinary infraction. Additionally, it does not differentiate between infractions that were ultimately dismissed and infractions of which the inmate was found guilty of and disciplined for. This is an issue of measurement validity, because while the study intends to measure the relationship between prison misconduct as perceived by staff and program participation, the study is only able to measure the relationship between receiving an infraction and program participation. This makes the relationship between prison program participation and disciplinary infractions a bit more difficult to interpret.

Independent Variables

This study has several different independent variables which apply to five different hypotheses. The first independent variable which applies to the first hypothesis is a dichotomous variable measuring program participation. This indicates if the subject reports they have participated in any program during their current period of incarceration (yes=1, no=0). This category includes life skills programming, religious programming, mental health and substance abuse programming, educational programming, vocational programming, or any other form of programming while incarcerated. The second independent variable is the number of program categories an individual has participated in during their current period of incarceration. Categories include educational and vocational programming, religious programming, mental health services, substance use disorder treatment, and general inmate services such as reentry programs or family unification programs. The third independent variable is educational and vocational prison programming participation which is used in my third and fourth hypothesis. This is a

dichotomous variable in which the subject indicates if they have participated in any prison programming to include educational and vocational programming (yes=1, no=0). There is a dichotomous variable indicating whether the individual participated in any religious programming during their current period of incarceration (yes=1, no=0). This category includes traditional religious services, bible study courses, religious counseling, and other related activities. Finally, I include a variable indicating the number of hours spent engaged in religious programming during the last week. These variables do not allow differentiation based on type of religion.

There are some foreseeable issues with the independent variables this study will utilize. With the exception of religious program participation, none of the independent variables utilized in this study are able to estimate dosage of program participation. I am unable to differentiate between individuals who attended one day of a prison program and did not return, and individuals who participated in programs to completion. With this limitation, it is difficult to correlate program participation to prison misconduct due to the lack of information regarding the duration of the program. I attempt to address this by creating a count variable to measure the number of programs types an individual has participated in. For example, if someone has participated in mental health treatment only, that counts as one program. If an inmate has participated in mental health treatment, substance use disorder treatment, and a GED program, that counts as three programs. If an individual has participated in a GED program, ESL courses, and college coursework, that counts as one program because they all fall under the same category of programming. This is a limitation of this variable because an individual may have started participating in many different programs and completed none, while other individuals

may have dedicated themselves to a certain category of programming and completed all the requirements. This would make it seem as though less program participation is more beneficial than more program participation. In addition to analyzing the impact of all types of programs available to inmates, I analyze the impact of individual programs, specifically educational, vocational, and religious programming.

As indicated previously, educational and vocational programs are particularly important and beneficial during one's incarceration for a variety of reasons. These programs tend to be time intensive, promote responsibility and accountability, and provide the individuals with important skills that will be beneficial upon their release. Program participation is coded as "yes" if a respondent reports having participated in the program during their current period of incarceration. However, there are no follow up questions to determine how long the respondent participated in the program or at what stage of their incarceration. For example, an individual who was enrolled in a GED course for one day and then dropped out is coded as "yes," and a respondent who has completed every educational program available is also coded as "yes." There is no question there is a difference between these two respondents, but in this sample, we are unable to distinguish between the two.

The religious programming variable is the only independent variable that includes information about dosage, or how much time an inmate spends engaged in religious programming. The questions in the survey reference if the inmate has engaged in any religious activities and how many hours they have spent engaged in these activities in the last week. This is helpful because it provides a better way to scale an individual's commitment to religiosity. One drawback is that the category is vague and it is

impossible to determine what type of religious activity the individual engaged in. For example, it is not clear if the individual went to church for the entirety of the hours they spent engaged in religious activities, or if they were watching a religious television program.

Finally, a limitation of every independent variable is selection bias. It is not clear why an individual is engaging in any prison program, and there are several possibilities. It is possible that an individual is court ordered by a judge to complete a program as a part of their sentence. Inmates may participate in certain programs due to state legislation or prison policies that mandate program participation for certain individuals. For example, inmates who do not speak English may be required to participate in English as a Second Language courses for a year upon admission to prison, or as a prerequisite for other programs (Gardner, 2014). Inmates who do not have a high school diploma may be mandated to participate in a GED program (DelliCarpini, 2006; Gardner, 2014). Finally, there may be a difference between the type of inmate that elects to participate in prison programming and the type of inmate that chooses not to participate (Case & Fasenfest, 2004; Nowotny, 2015). Inmates who choose to participate in programs are more likely to want to use their time while incarcerated constructively rather than avoiding boredom (Brosens et al., 2015).

Control Variables

A variety of control variables are included in this model. Sentence length is a continuous variable which indicates the individual's total sentence length. This variable is truncated at the fifty-year mark to more effectively account for anyone serving extensive

periods of time incarcerated, or sentenced to life or death.² Time served is a continuous variable indicating how much of the sentence has been served as of the time the interview was conducted. This is relevant because an individual who has been incarcerated for a longer period of time is likely to have been charged with more disciplinary infractions than someone who has just started their period of incarceration. A dichotomous variable is included to gauge if the respondent is scheduled to be released within the next twelve months. This study will control for offense type, differentiating between violent, property, and drug offenses. Maximum education level is a continuous variable indicating how many years of formal education has been completed by the respondent at the time of the interview. This is an important control variable for two reasons: first, one's level of prior educational achievement determines what educational programs they are eligible for. Second, studies show educational achievement is negatively correlated with rule violations in prisons (Bonner et al., 2017). Both factors help provide context and additional information about individuals who are participating in educational programs while incarcerated. Mental health diagnosis is a dichotomous variable which indicates if the individual has ever been diagnosed with a mental health disorder. Substance use disorder treatment is a dichotomous variable which indicates if the individual has ever received substance use disorder treatment. Both of these control variables are important to the analysis because individuals with mental health or substance use disorders are more likely to engage in prison misconduct (Henry, 2020). Employment status prior to

² I have truncated this variable in order to account for individuals in this sample sentenced to life or death. Individuals with these sentences are an important part of this study, as the main policy implication of interest is the impact of programming on prison misconduct for any incarcerated individual, regardless of their potential for future release.

incarceration is a dichotomous variable indicating whether the individual was employed or owned a business in the month prior to arrest. Marital status is a dichotomous variable indicating whether the defendant is married or not, because marriage is a social bond that is associated with lower levels of prison misconduct (Jiang et al., 2005). Age is a continuous variable indicating the individual's age in years at the time of their current incarceration. Age is an important control factor because older inmates tend to commit fewer rule violations while incarcerated than younger inmates (Camp et al., 2003). Male is a dichotomous variable to indicate gender, where (1=male and 0=female).

Information regarding an inmate's membership in a gang or serious threat group is not available in this dataset. Individuals who are involved in gangs or serious threat groups are more likely to be involved in all types of misconduct (Bonner et al., 2017). Gang or security threat group membership would be particularly helpful in this analysis because gangs and security threat groups in prisons are typically racially and ethnically homogenous, which may account for some of the racial and ethnic disparities in misconduct (Bell, 2017). Unfortunately, this is an important variable that this study will not be able to account for.

Methods

I will utilize logistic regression models to establish the relationship between prison programs and disciplinary infractions, as well as the impact race has on this relationship. First, I will model program participation and disciplinary infractions to establish the relationship for Hypothesis 1, including all control variables. This logistic regression intends to compare individuals who participated in prison programs with

individuals who did not participate in prison programs during their current period of incarceration.

Next, I will model the number of different program categories the inmate has participated in and disciplinary infractions to establish the relationship for Hypothesis 2. The reference category for this model is individuals who have not participated in any prison programming. This model intends to demonstrate the relationship between disciplinary action and the number of programs an inmate has participated in during their period of incarceration.

I will then conduct a logistic regression comparing participation in educational and vocational programs compared to all other programs and the relationship disciplinary infractions to establish the relationship for Hypothesis 3. I will utilize t-tests to determine if the differences in the coefficients for each program category are statistically significant. I will also include variables that measure participation in religious programs, mental health treatment, substance use disorder treatment, general inmate services, and reentry programs. The reference category for this analysis will be inmates who have not participated in any of the aforementioned programs. This will provide information on how individuals who have participated in educational and vocational programming compare to nonparticipants in terms of disciplinary infractions. This model will also provide insight as to how educational and vocational programs impact prison misconduct compared to other types of prison programs.

To evaluate Hypothesis 4 and Hypothesis 5, I will introduce three different logistic regression models with different samples: one for black individuals, one for Latino individuals, and one for white individuals. These models will estimate the

relationship between program participation and disciplinary infractions by the individual's race and ethnicity. In order to estimate if there are statistically significantly different probabilities of engaging in misconduct based on race and ethnicity, I will conduct several z-tests to compare coefficients across models (Paternoster et al., 1998).

Robust standard errors will be generated based on clustering on the state of residence to address any spatial correlation in the data. Most individuals in the sample are incarcerated in the state they resided in prior to their incarceration. This is relevant because there are more likely to be similarities between prisons intrastate than across all states, and inmates housed in one state's department of corrections are more likely to have similarities to inmates in the same state compared to inmates in different states or different regions of the country. Additionally, the state legislation mandating specific program participation or court orders for program participation are more likely to be similar within a state than within a facility or across states.

Chapter 5: Results

Descriptive Statistics

Descriptive statistics for the analytic sample are included in Table 2 (n=11,570). Inmates in this sample had an average age of 35.15 years ($\sigma=10.17$) with an age range from 16 to 80 years at the time of interview. The majority of the sample is male (79.63%) and 16.52% of inmates in this sample were married at the time of interview. Just over one-third (38.59%) of the sample is non-Hispanic white, 38.79% of the sample is non-Hispanic black, 16.68% of the sample is Latino, and individuals of any other race or ethnicity constitute 2.07% of the sample. Nearly three-quarters of the sample were employed full-time or part-time prior to their incarceration (70.22%) and the average education level among inmates in this sample is 10.86 years ($\sigma=2.30$). In this sample, 29.48% of inmates report having a mental health diagnosis and 62.56% of inmates report having received any form of substance abuse treatment in their lifetime.

The average sentence length reported is 162.28 months ($\sigma=180.94$), with a range of zero months to 601 months. Offense type is assigned by the most serious offense an individual is currently incarcerated for. Roughly 45.16% of inmates are incarcerated for committing a violent offense, 20.37% of inmates are incarcerated for committing a property offense, and 23.08% of inmates are incarcerated for committing a drug offense.

Approximately half of inmates (51.69%) report that they have committed rule violations during their current period of incarceration. Of individuals who have reported committing a disciplinary infraction, 19.06% report they have committed a violent offense and 46.75% report having committed a nonviolent offense. Over half of black inmates report engaging in any type of rule violation (55.37%), compared to 45.91% of

Latino inmates and 50.30% of white inmates. Black inmates also account for more violent disciplinary infractions (22.82%) compared to 18.03% of Latino inmates and 15.99% of white inmates. Nonviolent rule violations are common, with 49.40% of black inmates, 40.88% of Latino inmates, and 46.36% of white inmates reporting at least one rule violation during their current period of incarceration.

Just over two-thirds (67.39%) of inmates report participating in any form of prison programming during their incarceration, with inmates participating in an average of 1.7 programs. Just over half (56.31%) of inmates report participation in educational or vocational programming, compared to 21.87% of inmates participating in mental health programming, and 18.55% of inmates participating in general service programs. 62.13% percent of inmates report participation in religious programs, with the average participant spending 3.85 hours per week engaging in religious programming.

Is prison program participation related to committing disciplinary infractions?

First, I test the relationship between participation in any prison program during the current period of incarceration and disciplinary infractions after controlling for relevant criminal history, lifestyle, and demographic characteristics (Model 1, Table 5).³ The results illustrate that individuals who have participated in prison programming were more likely to engage in misconduct. Specifically, individuals who participate in any form of prison programming are 1.92 times more likely to engage in misconduct than individuals who do not participate in prison programming. I reject the null hypothesis for Hypothesis 1 and conclude that prison program participation and prison misconduct are related. This outcome is consistent with routine activities theory, suggesting that inmates

³ I ran bivariate models which were consistent with the fully specified models including all control variables. See Appendices 1 and 2.

engaged in prison programming are exposed to more opportunities to commit rule violations (Cohen & Felson, 1979). However, as discussed above, routines activities theory informed competing hypotheses for this relationship, since an inmate involved in programs could be confronted with fewer or more opportunities to commit violations. This finding suggests that the latter may be true and that programs afford more opportunities. This finding is also consistent with some prior literature, which finds that participation in certain programs is associated with a higher probability of rule violations (Clark & Rydberg, 2016; Evans et al., 2018; Jiang et al., 2005; Thomas, 2012).

Several of the control variables are significantly related to disciplinary infractions as well. Consistent with prior studies, having received substance use disorder treatment and having a mental health diagnosis were associated with a significantly higher likelihood of committing a rule violation (Chamberlain, 2012; Henry, 2020). It is possible that the individuals in this sample with mental health diagnoses may not be receiving adequate or appropriate mental health treatment, making a mental health diagnosis a risk factor for misconduct as predicted by Chamberlain (2012). Sentence length, anticipating an upcoming release, being employed prior to incarceration, being married, and age are all significantly and negatively associated with disciplinary infractions. The significance of these variables is consistent with prior studies as well as social control theory (Camp et al., 2003; Hirschi, 1969; Jiang et al., 2005). Control variables that are indicative of social bonds, such as prior employment and marriage, should be associated with lower odds of misconduct as they indicate higher stakes in conformity (Hirschi, 1969). Having an upcoming release could be considered a stake in conformity, as individuals who anticipate their release from prison in the next twelve months likely do not want to risk

losing their privileges by engaging in misconduct. Finally, being incarcerated for a drug offense and being Latino were also significantly and inversely related to misconduct.

Does the level of involvement in prison programs relate to committing disciplinary infractions?

The second model estimates the relationship between the number of types of programs in which an inmate has participated and disciplinary infractions using the same control variables (Model 2, Table 5). The results indicate that the probability of engaging in rule violations becomes higher with each additional program an individual participates in. Specifically, the odds of committing a rule infraction are higher by 1.302 with each additional program. The same control variables were significant and in the same directions as the prior model, with the exception of having received substance use disorder treatment, which was only marginally significant in this model.

This finding is aligned with Cohen and Felson's predictions in routine activities theory: the more opportunities one has to engage in delinquent behavior, the more delinquency increases (1979). Routine activities theory informed competing hypotheses for this relationship as well. Based on these findings, it appears that participation in more prison programs affords more opportunities to engage in misconduct. These results are contrary to social control theory, which would predict that participation in more programs should increase one's attachment to others and stakes in conformity, thus reducing prison misconduct. I reject the null hypothesis for Hypothesis 2 and determine that the likelihood of committing a disciplinary infraction is higher for individuals who have participated in more programs.

Do different types of prison programs have different effects on disciplinary infractions?

The third model tests the relationship between different types of prison programs and prison misconduct, while controlling for criminal history, lifestyle, and demographic variables (Model 3, Table 5). Specifically, I examine the differences between educational and vocational programming, mental health programming, general service programs, and religious programming and their relationships to disciplinary infractions. Educational and vocational programs, mental health programs, and general service programs were all positively and significantly associated with having committed any disciplinary infraction during the current period of incarceration. Only religious program participation was negatively and statistically significantly related to disciplinary infractions.

I used a t-test to determine whether the program coefficients in this model are statistically significantly different from each other using the following formula:

$$t = (\beta_1 - \beta_2) / \sqrt{(s^2\beta_1 + s^2\beta_2) - 2\text{cov}(\beta_1, \beta_2)}$$

Comparing the differences in coefficients for educational and vocational program participation, mental health program participation, general service program participation, and religious program participation revealed some significant differences.

There was no statistically significant difference between the educational and vocational program participation and mental health program participation coefficients ($t=1.56$, $p=0.1188$). The difference between educational and vocational program participation and general service program participation coefficients was not statistically significant either ($t=1.32$, $p=0.1869$). However, the difference between the coefficients for educational and vocational program participation and religious program participation

was statistically significant ($t=11.548$, $p=0.000$). This result indicates that participation in religious programming is associated with a significantly lower probability of engaging in misconduct compared to participation in educational and vocational programming. These results are not in support of Hypothesis 3, which suggested that educational and vocational program participation would have a lower association with misconduct than other programs. Additional comparisons revealed that there were statistically significant differences between the coefficients for mental health programming and religious programming, mental health programming and general service programming, and religious programming and general service programming (Table 9). I fail to reject the null hypothesis for Hypothesis 3.

These findings again suggest that program participation is likely associated with more opportunities to engage in delinquency. One unexpected result is that general service programs, which include reentry programming, are positively and significantly related to misconduct. Typically, only individuals with an upcoming release participate in reentry programming, and anticipating an upcoming release is often associated with a lower likelihood of misconduct. This may be a result of how the programs are grouped together into a category, rather than each program listed individually.

The finding that religious program participation is significantly and inversely associated with disciplinary infractions is consistent with the literature. Prior studies assert that religious program participation is negatively associated with violent rule violations, the number of monthly rule violations, drug violations, and property violations (Jiang et al., 2005; Meade, 2018). The result that religious program participation is inversely related to overall misconduct and is significantly different from other programs

is important, as many prior studies did not find significant differences until the measure for rule violations was separated into categories or measured on the facility level.

This finding is also supported by two theories informing this study: social control theory and social identity theory (Hirschi, 1969; Tajfel & Turner, 1970). Using social control theory, one could posit that participation in religious programs leads to higher levels of attachment to others and involvement in a conventional lifestyle (Hirschi, 1969). Individuals may not want to disappoint their fellow parishioners, or lose these attachments, making them less likely to engage in rule violations. Social identity theory offers similar support. Religious program participation is associated with being a member of a positive group. Individuals are likely to internalize their group affiliation as a facet of their identity, to the extent that their actions are an extension of their group (Tajfel & Turner, 1970). Individuals who internalize a religious identity could be less likely to engage in misconduct because they do not want to tarnish the image of the group or be removed from the group.

Is the association between participation in educational and vocational programming and disciplinary infractions contingent on race/ethnicity?

I next estimate whether the relationship between educational and vocational program participation is contingent on participant race and ethnicity. I utilize three models total: one for Latino inmates, one for black inmates, and one for white inmates (Table 6). Consistent with the previous model, participation in educational and vocational programs was significantly and positively associated with prison misconduct across all models. The relationship between participation in educational and vocational programs was positive and significant for black participants (odds ratio=1.902, p=0.000), Latino

participants (odds ratio=1.539, p=0.000), and white participants (odds ratio=1.657, p=0.000).

I utilized a z-test to compare the coefficients across models and determine if there are any statistically significant differences by race and ethnicity (Paternoster et al., 1998).⁴

$$z = (b_1 - b_2) / \text{sqrt}(SEb_1^2 + SEb_2^2)$$

There were no statistically significant differences in misconduct across racial or ethnic groups for individuals who have participated in educational or vocational programming. Black individuals who have participated in educational and vocational programming while incarcerated did not have a significantly different probability of engaging in disciplinary infractions compared to Latino participants (z=1.504, p=0.1326) or white participants (z=1.472, p=0.1466). Latino educational and vocational program participants did not have a statistically different probability of engaging in misconduct compared to white participants (z= -0.532, p=0.5947).

These results are contrary to the proposed hypothesis, informed by routine activities theory, which proposed that black and Latino educational and vocational program participants should have a lower probability of engaging in of prison misconduct than white participants. It appears as though educational and vocational programming does not differentially benefit individuals of different racial and ethnic groups.

⁴ The Paternoster and colleagues (1998) recommended z-test is not ideal for logistic regression models, although that is the test used in this study. To address, this, I also ran models including interaction variables and the findings were the same.

Is the relationship between participation in religious programming and disciplinary infractions contingent on race/ethnicity?

I also examine the relationship between religious program participation and prison misconduct and explore whether race and ethnicity moderate this relationship (Table 6). The relationship between participation in religious programs and misconduct was not significant for black participants (odds ratio=0.901, p=0.145) or Latino participants (odds ratio=.8445, p=0.201). Religious program participation was inversely and significantly associated with misconduct for white participants (odds ratio=.8105, p=0.105).

To compare coefficients across models, I utilized a z-test to determine if there are any statistically significant differences in coefficients based on race and ethnicity (Paternoster et al., 1998).

$$z = (b_1 - b_2) / \text{sqrt}(SEb_1^2 + SEb_2^2)$$

There were no statistically significant differences in prison misconduct for religious program participants across race and ethnicity. Black individuals who participated in religious programming did not have a statistically different probability of engaging in misconduct compared to Latino participants (z=0.432, p=0.6657) or white participants (0.944, p=.3452). Latino inmates who participated in religious programming did not have a statistically different probability of engaging in misconduct compared to white participants (z=0.260, p=.7949).

In addition to utilizing a dichotomous variable to measure religious program participation, I used a discrete variable for the number of hours spent engaged in religious programming in the last week (Table 8). Prior literature has emphasized the importance of examining both dichotomous and discrete measures to account for any potential

differences (Meade, 2018). It is also a way to of measure dosage of program participation, as this differentiates between individuals who have attended church services a single time during their incarceration, and individuals who engage in religious programming on a regular basis.

The variable measuring the hours spent participating in religious programming was not significant in any model. Testing of coefficients across models reveals that there are no statistically significant ($p < 0.05$) differences in misconduct for religious program participants based on racial or ethnic identity. This finding holds when analyzing a dichotomous variable for religious program participation as well as a variable measuring the number of hours engaged in religious programming in the last week. As a result, I fail to reject the null hypothesis in Hypothesis 5, that religious program participation may be more beneficial for black and Latino participants compared to white participants.

Referring back to social identity theory, it is possible that the religious identity is not internalized differently for individuals of minority race and ethnicity as hypothesized, thus reducing levels of conflict and misconduct for specific minority groups. The significance of religious participation for the sample as a whole may be indicative of the benefits of religious program participation for inmates regardless of race or ethnicity.

Chapter 6: Discussion and Conclusion

The results of this study indicate that participation in most programs is generally associated with higher odds of misconduct. A dichotomous measure of prison programming was significantly associated with higher odds of prison misconduct. Number of program categories an individual has participated in is also positively related to the likelihood of misconduct. A comparison between program categories revealed that the only program significantly and inversely related to disciplinary infractions is religious programming. Finally, there were no significant differences across race/ethnicity in these associations.

The results of this study overall are consistent with some extant literature which indicates that despite the numerous benefits of prison programming, the rehabilitative effects of prison programming do not eliminate prison misconduct (Clark & Rydberg, 2016; Jiang et al., 2005; Meade, 2018). However, prior literature suggests that utilizing a dichotomous variable that combines all forms of misconduct, including very minor misconduct, possibly confounding important results. Prior studies on prison misconduct have illustrated the importance of differentiating between types of misconduct (Camp et al., 2003; Jiang et al., 2005; Meade, 2018; Wooldredge et al., 2001). However, in this study, differentiating by type of misconduct provided little clarity as to which programs are associated with violent or nonviolent behavior.⁵

⁵ I ran supplemental analysis in which I used violent misconduct and nonviolent misconduct as dependent variables. Results did not differ substantively from the results reported in this study (Tables 7 and 8).

On the one hand, routine activities theory and social control theory informed the hypothesis that prison programming may be associated with a lower likelihood of misconduct as it keeps inmates busy and makes the formation of social bonds to inmates, staff, and volunteers more probable (Cohen & Felson, 1979; Hirschi, 1969). While this hypothesis was not supported by the findings, social identity theory provided insight as to why participation in religious programming could be associated with a lower likelihood of engaging in misconduct (Turner & Tajfel, 1970). On the other hand, routine activities theory informed a competing hypothesis that participation in prison programming may provide inmates with more opportunities to engage in misconduct (Cohen & Felson, 1979).

Consistent with the literature on this topic, the findings of this thesis offer mixed support for the relationship between program participation and misconduct. Overall, qualitative findings suggest that program participation has many benefits, including reduced prison misconduct. However, quantitative studies tend to offer more mixed findings on how program participation impacts prison misconduct (Clark & Rydberg, 2016; Jiang et al., 2005). These results do not necessarily negate other benefits of prison program participation found by other studies. The cross-sectional nature of the data limits researchers' ability to make assumptions about temporal order. For example, Chamberlain's (2012) study found that individuals with unaddressed needs, such as mental health, substance use disorder, or educational/vocational needs, have a higher

Supplemental analysis on race/ethnicity specific models did not differ substantively either (results available upon request). Therefore, I retained variable using the combined forms of misconduct for this analysis.

likelihood of engaging in misconduct compared to individuals who are receiving the appropriate programming.

This finding is particularly salient for dichotomous measures of program participation, discrete measures for the number of programs participated in, and participation in educational and vocational programming. Educational and vocational programming remained a strong predictor of misconduct regardless of race and ethnicity. This is contrary to the predictions of social control theory, as well as some extant literature, which find that a major benefit of this type of program participation is reduced prison misconduct. Black, Latino, and white educational and vocational program participants were each more likely to engage in misconduct and there were no statistically significant differences in the probability.

The dichotomous measure of religious program participation was negatively associated with misconduct in nearly every model. Interestingly, religious program participation was not significantly and inversely associated with misconduct in the models for black and Latino individuals, as it was in the model for white individuals. This is contrary to this study's proposed hypothesis that religious program participation may be more beneficial for black and Latino participants. Despite these apparent differences, the coefficients were not statistically significantly different across models. Finally, "hours spent engaged in religious programs" is not a significant predictor of prison misconduct in this study, as it was not significant in any model.

I also found no evidence that religious program participation may be more beneficial for black and Latino inmates compared to white inmates. Social identity theory informed the hypothesis that group membership contributes to reduced conflict resulting

from social stratification (Tajfel & Turner, 1970). While most of the prior literature utilizes social identity theory to explain conflict related to social stratification based on class and race, another example of social stratification is the label of “inmate” or “felon” (Upadhyayula et al., 2017). It is possible that religious program participation can buffer the effects of these labels by allowing incarcerated individuals to be a member of a positive group. The opportunity to form attachments to similarly situated individuals may encourage feelings of belonging and encourage a positive social identity for religious program participants. Social identity theory could categorize this process as “social creativity,” where the individuals are changing the significance of their group from something negative (inmate) to something positive (religious participant), even if it does not change their setting (Tajfel & Turner, 1970). The identification with a positive group appears to be important for all incarcerated individuals, rather than solely black or Latino inmates. It is possible that the incarceration experience imposes a similar hardship on all inmates regardless of race and ethnicity.

Information regarding specific types of religious programming in prisons, including whether certain religious programs have distinct cultural or ethnicity-specific components such as offering church services in Spanish, is not available. Religious programming in prisons may consist of more integrated services which are designed to appeal to the entire prison population. This may explain why religious program participation is associated with a lower likelihood of misconduct across race and ethnicity. Religious services that are tailored to fit the needs of the entire prison population may play a role in reducing conflict by allowing inmates to have positive associations with inmates of other races and ethnicities.

Overall, the common theme among these results is that most prison programs are associated with an increased likelihood of misconduct for program participants. The exception to this trend is participation in religious programming, which was consistently associated with reduced likelihood of engaging in misconduct. Finally, there was no significant evidence that certain programs were more beneficial for racial and ethnic minorities, at least in a way that led to reductions in misconduct levels.

Certain control variables exhibited unexpected results in this study. Being of Latino ethnicity had a significant and inverse relationship to misconduct in the first three models. Being married was statistically significant and negatively associated with misconduct for the entire sample, but it was only statistically significant and negative for white inmates when the samples were separated by race. Finally, in the sample of black inmates, males had a significantly lower probability of engaging in misconduct compared to females. While these results are subtle and vary by model, it is clear that there are some differences by race and ethnicity that cannot be explained by the theories proposed in this study and should be explored further.

Controlling for offense type also revealed some unexpected findings in this sample. Individuals who are incarcerated for a drug offense had a significantly lower likelihood of engaging in misconduct in the first and third models. This was an unexpected finding, as prior studies have shown that individuals who suffer from substance use disorders are more likely to engage in misconduct while incarcerated, specifically drug and alcohol offenses (Henry, 2020). It is possible that individuals incarcerated for drug offenses are more likely to be incarcerated for the manufacturing

and distribution of controlled substances, rather than the use of controlled substances, which may explain this result.

Although this study is one of the first attempts at understanding how prison programming and racial and ethnic identity can impact misconduct, there are several limitations that warrant discussion. First, the cross-sectional nature of the SISCF data makes it impossible to establish temporal order. It is impossible to know with any certainty if the program participation or rule violation occurred first. While this study attempts to exclude programs that could be used as a consequence for engaging in misconduct, such as anger management classes, there are other situations in which a rule violation might lead to a program referral. For example, inmates that are institutionally charged with the use or possession of alcohol or a controlled dangerous substance may be referred to a substance use disorder treatment program or mental health programming.

Additionally, with the exception of religious programming, none of the program variables of interest offered any information on dosage. There are likely differences between inmates who engage in educational or vocational programming for one day and then quit, compared to individuals who complete many educational or vocational courses in their entirety. However, this study is only able to measure if an inmate has ever participated in a program during their incarceration.

There is no information in the dataset for several key topics that would likely provide more insight to this research question. For example, there is no question in the SISCF that addresses gang or security threat group membership or associations during the current period of incarceration. Gang membership has been found to be a significant

predictor of all types of misconduct in correctional facilities and would provide context to the situations in which one may choose to engage in misconduct (Bonner et al., 2017).

This thesis finds support for the possibility that participation in prison programming can differentially impact prison misconduct based on the frequency and type of programming. While these results did not support the hypothesis of differential effects of program participation contingent on race and ethnicity, it should be considered in future research. Additional considerations should include socioeconomic status, more specific measures for mental health or substance use disorders, gang or serious threat group membership, and family characteristics (e.g. incarcerated parents or siblings). Additionally, more research on the relationship between prison programming and misconduct should be conducted with time series data, in order to better estimate the causality and temporal order of the relationship.

This study, in tandem with additional research, can contribute to correctional policy in a meaningful way. Policymakers should consider the possibility that although participation in most programs is associated with a higher likelihood of misconduct, studies using cross-sectional data are able to make no causal claims. These results are not indicative of a “bad” program, or a program causing participants to engage in misconduct. Additionally, results indicative of a positive relationship between program participation and misconduct do not warrant the dismissal of the other potential benefits of prison programming, which are more qualitative in nature. If correctional officials are concerned about the safety of their institutions when reviewing the associations between participation in prison programming and misconduct, institution-specific action should be

taken to ensure the safety and security of the facility while still providing for the operation of such programming.

The goal of this study is to determine how prison program participation is associated with rule violations for the incarcerated population. Learning about what programs have lower associations with misconduct, or if certain programs are affiliated with lower probabilities of misconduct for specific populations, is valuable information for correctional facilities and communities alike. Until the nationwide crisis of mass-incarceration can be properly addressed, it is critical that appropriate opportunities are provided to promote the safety and rehabilitation of the incarcerated population. Whether this means providing more programming or focusing on the effects of certain programs on specific groups is not yet known. While these results cannot stand alone to inform policy change, adjustments in policy should be made with awareness of the potential differential needs across demographic groups when making decisions regarding prison programming.

Tables

Table 1: Prior Utilizations of Survey of Inmates

| Author | Title | Year | Dataset | Findings |
|--|---|------|--|--|
| Chamberlain, A. | Offender rehabilitation: examining changes in inmate treatment characteristics, program participation, and institutional behavior | 2012 | Survey of Inmates 1991, 1997, and 2004 | Unaddressed needs (not participating in programs) may lead to institutional misconduct. |
| Clark, K. & Rydberg, J. | The effect of institutional educational programming on prisoner misconduct | 2016 | Survey of Inmates 2004 | Participation in educational programs is associated with increased rule violations. |
| Jiang, S., Fisher-Giorlando, M. & Mo, L. | Social support and inmate rule violations: a multilevel analysis | 2005 | Survey of Inmates 1997 | Vocational programming is associated with an increase in violent rule violations only. Religious programming is associated with fewer violent rule violations, and reduced overall and drug/property violations on the facility level. |
| Meade, B. | Moral Communities and Jailhouse Religion: Religiosity and Prison Misconduct | 2014 | Survey of Inmates 2004 and 2000 Census of Correctional Facilities | # of hours spent in religious programming was inversely related to violent misconduct. Not associated with any forms of nonviolent misconduct. |

Table 2: Descriptive Statistics

| | # obs. | Mean | Std. Dev. | Min. | Max. |
|---|--------|-------|-----------|------|------|
| <i>Rule Violations Y/N</i> | 11,570 | .5169 | .4997 | 0 | 1 |
| Programming Variables | | | | | |
| <i>Program Participation Y/N</i> | 11,570 | .6739 | .4688 | 0 | 1 |
| <i># of Programs Participated</i> | 11,570 | 1.708 | 1.447 | 0 | 5 |
| <i>Educational or Vocational Programs Y/N</i> | 11,570 | .5631 | .4960 | 0 | 1 |
| <i>Religious Programs Y/N</i> | 11,570 | .6213 | .4851 | 0 | 1 |
| <i># Hours in Religious Program (last week)</i> | 11,570 | 3.848 | 8.736 | 0 | 99 |
| Criminal History Variables | | | | | |
| <i>Incarcerated for Violent Offense (Y/N)</i> | 11,570 | .4516 | .4977 | 0 | 1 |
| <i>Incarcerated for Property Offense (Y/N)</i> | 11,570 | .2037 | .4028 | 0 | 1 |
| <i>Incarcerated for Drug Offense (Y/N)</i> | 11,570 | .2307 | .4213 | 0 | 1 |
| <i>Sentence Length (Months)</i> | 11,570 | 162.3 | 180.94 | 0 | 601 |
| <i>Time Served (Months)</i> | 11,570 | 54.78 | 62.25 | 0 | 523 |
| <i>Upcoming Release</i> | 11,570 | .4481 | .4973 | 0 | 1 |
| Personal Characteristics | | | | | |
| <i>Educational Achievement (Years)</i> | 11,570 | 10.86 | 2.297 | 0 | 18 |
| <i>Employed Prior to Prison (Y/N)</i> | 11,570 | .7022 | .4573 | 0 | 1 |
| <i>MH Diagnosis (Y/N)</i> | 11,570 | .2948 | .4560 | 0 | 1 |
| <i>Received Substance Use Treatment (Y/N)</i> | 11,570 | .6256 | .4840 | 0 | 1 |
| <i>Black (Y/N)</i> | 11,570 | .3879 | .4873 | 0 | 1 |
| <i>Latino (Y/N)</i> | 11,570 | .1668 | .3728 | 0 | 1 |
| <i>Married (Y/N)</i> | 11,570 | .1652 | .3713 | 0 | 1 |
| <i>Age (Years)</i> | 11,570 | 35.15 | 10.171 | 16 | 80 |
| <i>Male (Y/N)</i> | 11,570 | .7963 | .4028 | 0 | 1 |

Table 3: Analysis of Missing Data

| | Misconduct (Y/N) | | Program Participation (Y/N) | | # Programs | | Educ/Voc Program (Y/N) | | Religious Program (Y/N) | | # Hours Religious Programs | |
|------------------------------|---------------------|-------------|--------------------------------|-------------|--------------|-------------|---------------------------|-------------|----------------------------|-------------|-------------------------------|--------------|
| N=11,722 | | | | | | | | | | | | |
| | z | P> z | z | P> z | z | P > z | z | P> z | z | P> z | z | P> z |
| <i>Violent Offense</i> | 0.26 | 0.798 | 0.06 | .956 | 0.06 | .956 | 0.10 | 0.923 | 0.12 | .832 | -0.13 | 0.899 |
| <i>Time Served</i> | -1.34 | 0.179 | -1.49 | .135 | -1.49 | .135 | -1.09 | 0.274 | -0.96 | .337 | -0.11 | 0.913 |
| <i>Sentence (Months)</i> | -0.52 | 0.606 | -0.62 | 0.533 | -0.62 | 0.533 | -0.99 | 0.323 | -1.32 | 0.186 | 0.56 | 0.576 |
| <i>Upcoming Release</i> | -4.10 *** | 0.00 *** | -4.10 *** | 0.00 *** | -4.10 *** | 0.00 *** | -4.06 *** | 0.00 *** | -3.66 *** | 0.00 *** | -1.47 | 0.142 |
| <i>Education (Years)</i> | -1.25 | 0.211 | -0.60 | 0.548 | -0.60 | 0.548 | -0.45 | 0.656 | -0.32 | 0.746 | -1.90* | 0.058* |
| <i>Prior Work</i> | -0.40 | 0.690 | -0.44 | 0.657 | -0.44 | 0.657 | -0.61 | 0.539 | -0.57 | 0.571 | 0.15 | 0.882 |
| <i>MH Diagnosis</i> | 0.60 | 0.549 | 1.44 | 0.149 | 1.44 | 0.149 | 1.59 | 0.111 | 1.38 | 0.168 | 2.93 *** | 0.003 *** |
| <i>Substance Use Tx.</i> | 0.40 | 0.689 | -0.01 | 0.988 | -0.01 | 0.988 | -0.03 | 0.979 | -0.25 | 0.802 | -0.28 | 0.780 |
| <i>Black</i> | -0.16 | 0.869 | 0.47 | 0.640 | 0.47 | 0.640 | 0.07 | 0.948 | -0.20 | 0.838 | 3.32 *** | 0.001 *** |
| <i>Latino</i> | 1.16 | 0.245 | 0.95 | 0.343 | 0.95 | 0.343 | 1.00 | 0.317 | 1.09 | 0.278 | 0.01 | 0.989 |

| | | | | | | | | | | | | |
|-----------------|--------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|--------------|-------------|--------------|-------------|
| <i>Married</i> | 1.72 * | 0.086 * | 1.65* | 0.099* | 1.65* | 0.099* | 1.47 | 0.141 | 1.90 * | 0.057 * | 1.58 | 0.115 |
| <i>Age</i> | 1.31 | 0.191 | 2.65 *** | .008 *** | 2.65 *** | .008 *** | 2.36 ** | 0.028 ** | 1.82 * | 0.069 * | 2.04 ** | 0.041 ** |
| <i>Male</i> | -0.86 | 0.390 | -0.01 | 0.994 | -0.01 | 0.994 | -0.10 | 0.922 | 0.03 | .979 | -0.53 | 0.599 |
| <i>Constant</i> | -4.91 *** | 0.00 *** | -5.80 *** | 0.00 *** | -5.80 *** | 0.00 *** | 5.63 *** | 0.000 | -5.00 *** | 0.00 *** | -6.88 *** | 0.00 *** |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Table 4: Analysis of Missing Data on Dependent Variable

| Variable Name | Misconduct (Y/N) | |
|----------------------------------|------------------|-----------------|
| N=14,449 | z | P> z |
| <i>Program Participation</i> | 9.26*** | 0.00*** |
| <i># Programs</i> | 9.26*** | 0.00*** |
| <i>Educ/Voc Program (Y/N)</i> | 2.71*** | .007*** |
| <i>Religious Program (Y/N)</i> | 0.55 | .583 |
| <i># Hours Religious Program</i> | 2.64*** | .008*** |
| <i>Constant</i> | -35.78*** | 0.00*** |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Table 5: Logistic Regression Results: Committed Any Type of Rule Violation

| | Model 1 n=11,651; | | Model 2 n=11,647; | | Model 3 n=11,647; | |
|---|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|
| | O.R. | Rob. SE | O.R. | Rob. SE | O.R. | Rob. SE |
| <i>Program Participant</i> | 1.92*** | .1070*** | --- | --- | --- | --- |
| <i>Program Count (#)</i> | --- | --- | 1.302*** | .0286*** | --- | --- |
| <i>Educational/Vocational Program Participant</i> | --- | --- | --- | --- | 1.758*** | .1010*** |
| <i>MH Program Participant</i> | --- | --- | --- | --- | 1.564*** | .0860*** |
| <i>General Service Participant</i> | --- | --- | --- | --- | 1.286*** | .0661*** |
| <i>Religious Program Participant</i> | --- | --- | --- | --- | .8508*** | .0409*** |
| <i>Violent Offense</i> | 1.142** | .0654** | 1.128** | .0657** | 1.136** | .0663** |
| <i>Drug Offense</i> | .8488** | .0626** | .8458** | .0622** | .8530** | .0630** |
| <i>Sentence Length (Months)</i> | 1.001*** | .0002*** | 1.001*** | .0002*** | 1.001*** | .0002*** |
| <i>Time Served (Months)</i> | 1.013*** | .0009*** | 1.012*** | .0009*** | 1.013*** | .0009*** |
| <i>Upcoming Release</i> | .7706*** | .0400*** | .7581*** | .0399*** | .7639*** | .0399*** |
| <i>Educational Achievement (Years)</i> | .9909 | .0092 | .9925 | .0094 | .9937 | .0097 |
| <i>Prior Employment</i> | .8739*** | .0372*** | .8735*** | .0360*** | .8909*** | .0380*** |
| <i>MH Diagnosis</i> | 1.294*** | .0769*** | 1.267*** | .0700*** | 1.156** | .0785** |
| <i>Substance TX</i> | 1.134** | .0580** | 1.104* | .0568* | 1.128** | .0582** |
| <i>Black</i> | 1.116 | .0841 | 1.110 | .0833 | 1.138* | .0856* |
| <i>Latino</i> | .8258** | .0666** | .8282** | .0667** | .8419** | .0712** |
| <i>Married</i> | .8218*** | .0407*** | .8100*** | .0396*** | .8230*** | .0395*** |
| <i>Age (Years)</i> | .9557*** | .0022*** | .9574*** | .0022*** | .9571*** | .0022*** |
| <i>Male</i> | .9527 | .0619 | .9845 | .0621 | .9616 | .0630 |
| <i>Constant</i> | 1.848*** | .3307*** | 1.794*** | .3330*** | 1.912*** | .3525*** |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Table 6: Logistic Regression Results: Committed Any Type of Rule Violation (Race/Ethnicity)

| | Black Participants N=4,488 | | Latino Participants N=1,930 | | White Participants N=4,464 | |
|---|--------------------------------------|----------|---------------------------------------|----------|--------------------------------------|----------|
| | O.R. | Rob. SE | O.R. | Rob. SE | O.R. | Rob. SE |
| <i>Educational/Vocational Program Participation</i> | 1.902*** (+) | .1333*** | 1.539*** (+) | .1878*** | 1.657*** (+) | .1069*** |
| <i>Mental Health Program Participation</i> | 1.581*** (+) | .1978*** | 1.336** (-) | .1658** | 1.605*** (+) | .1542*** |
| <i>General Service Program Participation</i> | 1.299*** (+) | .1268*** | 1.215 (+) | .1775 | 1.272*** (+) | .1048*** |
| <i>Religious Program Participation</i> | .9010 (-) | .0644 | .8445 (-) | .1115 | .8105*** (-) | .0700*** |
| <i>Religious Programming (Hours)</i> | 1.002 (+) | .0037 | .9964 (-) | .0065 | .9997 (-) | .0041 |
| <i>Violent Offense</i> | 1.226* (+) | .1442* | 1.074 (+) | .1347 | 1.069 (+) | .0945 |
| <i>Drug Offense</i> | .9849 (-) | .0853 | .8029 (-) | .1470 | .7888*** (-) | .0655*** |
| <i>Sentence Length (Months)</i> | 1.007** (+) | .0003** | 1.001* (+) | .0005* | 1.001*** (+) | .0003*** |
| <i>Time Served (Months)</i> | 1.013*** (+) | .0012*** | 1.014*** (+) | .0014*** | 1.012*** (+) | .0011*** |
| <i>Upcoming Release</i> | .7620*** (-) | .0608*** | .7966 (-) | .1105 | .7622*** (-) | .0562*** |
| <i>Educational Achievement (Years)</i> | 1.002 (+) | .0184 | 1.008 (+) | .0092 | .9725** (-) | .1336** |
| <i>Prior Employment</i> | .8286*** (-) | .0547*** | .7675*** (-) | .0695*** | 1.019 (+) | .0858 |
| <i>MH Diagnosis</i> | 1.126 (+) | .0963 | 1.384** (+) | .2006** | 1.093 (+) | .1022 |
| <i>Substance TX</i> | 1.224*** (+) | .0774*** | 1.248* (+) | .1506* | .9554 (-) | .0858 |
| <i>Married</i> | .9142 (-) | .0891 | .9485 (-) | .0762 | .7202*** (-) | .0613*** |

| | | | | | | |
|--------------------|-----------------|----------|-----------------|----------|-----------------|----------|
| <i>Age (Years)</i> | .9593*** (-) | .0034*** | .9488*** (-) | .0065*** | .9556*** (-) | .0030*** |
| <i>Male</i> | .7922** (-) | .0930** | .9382 (-) | .1040 | 1.083 (+) | .1084 |
| <i>Constant</i> | 1.864** (+) | .5074** | 2.033 (+) | 1.202 | 2.672*** (+) | .4329*** |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Table 7: Logistic Regression Results: Committed Violent Rule Violations

| | Model 7 n=11,701; | | Model 8 n=11,659; | | Model 9 n=11,659; | |
|---|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|
| | O.R. | Rob. SE | O.R. | Rob. SE | O.R. | Rob. SE |
| <i>Program Participant</i> | 1.48*** | .0888*** | --- | --- | --- | --- |
| <i>Program Count (#)</i> | --- | --- | 1.146*** | .0211*** | --- | --- |
| <i>Educational/Vocational Program Participant</i> | --- | --- | --- | --- | 1.368*** | .0825*** |
| <i>MH Program Participant</i> | --- | --- | --- | --- | 1.472*** | .0945*** |
| <i>General Service Participant</i> | --- | --- | --- | --- | 1.108 | .0693 |
| <i>Religious Program Participant</i> | --- | --- | --- | --- | .7976*** | .0374*** |
| <i>Violent Offense</i> | 1.266*** | .0825*** | 1.255*** | .0795*** | 1.263** | .0789** |
| <i>Drug Offense</i> | .8186** | .0758** | .8153** | .0741** | .8250** | .0753** |
| <i>Sentence Length (Months)</i> | 1.001*** | .0002*** | 1.001*** | .0002*** | 1.001*** | .0002*** |
| <i>Time Served (Months)</i> | 1.011*** | .0006*** | 1.011*** | .0007*** | 1.011*** | .0007*** |
| <i>Upcoming Release</i> | .7982*** | .0393*** | .7841*** | .0398*** | .7905*** | .0389*** |
| <i>Educational Achievement (Years)</i> | .9647*** | .0106*** | .9635*** | .0108*** | .9668*** | .0110*** |
| <i>Prior Employment</i> | .8047*** | .0357*** | .7995*** | .0362*** | .8184*** | .0367*** |
| <i>MH Diagnosis</i> | 1.660*** | .0858*** | 1.636*** | .0853*** | 1.432*** | .0884*** |
| <i>Substance TX</i> | 1.085 | .0699 | 1.070 | .0699 | 1.096 | .0694 |
| <i>Black</i> | 1.255*** | .0722*** | 1.458*** | .0724*** | 1.512*** | .0757*** |
| <i>Latino</i> | 1.169** | .0850** | 1.173** | .0872** | 1.199** | .0873** |
| <i>Married</i> | .8533** | .0734** | .8483* | .0735* | .8666 | .0756 |
| <i>Age (Years)</i> | .9363*** | .0039*** | .8483*** | .0735*** | .9377*** | .0040*** |
| <i>Male</i> | 1.137 | .1000 | 1.172* | .1056* | 1.149 | .1053 |
| <i>Constant</i> | .7697 | .2045 | .7934 | .2163 | .8159 | .2285 |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Table 8: Logistic Regression Results: Committed Nonviolent Rule Violations

| | Model 7 n=11,701; | | Model 8 n=11,659; | | Model 9 n=11,659; | |
|---|-----------------------------|----------|-----------------------------|----------|-----------------------------|----------|
| | O.R. | Rob. SE | O.R. | Rob. SE | O.R. | Rob. SE |
| <i>Program Participant</i> | 2.001*** | .1215*** | --- | --- | --- | --- |
| <i>Program Count (#)</i> | --- | --- | 1.303*** | .0313*** | --- | --- |
| <i>Educational/Vocational Program Participant</i> | --- | --- | --- | --- | 1.759*** | .1017*** |
| <i>MH Program Participant</i> | --- | --- | --- | --- | 1.466*** | .0774*** |
| <i>General Service Participant</i> | --- | --- | --- | --- | 1.330*** | .0819*** |
| <i>Religious Program Participant</i> | --- | --- | --- | --- | .8986** | .0403** |
| <i>Violent Offense</i> | 1.072 | .0596 | 1.059 | .0616 | 1.066 | .0619 |
| <i>Drug Offense</i> | .7995*** | .0560*** | .7939*** | .0548*** | .7993*** | .0551*** |
| <i>Sentence Length (Months)</i> | 1.001*** | .0002*** | 1.001*** | .0002*** | 1.001*** | .0002*** |
| <i>Time Served (Months)</i> | 1.012*** | .0008*** | 1.011*** | .0008*** | 1.011*** | .0008*** |
| <i>Upcoming Release</i> | .8106*** | .0408*** | .7893*** | .0411*** | .7936*** | .0416*** |
| <i>Educational Achievement (Years)</i> | .9957 | .0102 | .9960 | .0106 | .9964 | .0107 |
| <i>Prior Employment</i> | .8857 | .0572 | .8806** | .0550** | .8922* | .0566* |
| <i>MH Diagnosis</i> | 1.211*** | .0738*** | 1.192*** | .0641*** | 1.123* | .0716* |
| <i>Substance TX</i> | 1.136*** | .0517*** | 1.110** | .0518** | 1.128*** | .0529*** |
| <i>Black</i> | 1.010 | .0786 | 1.009 | .0791 | 1.027 | .0801 |
| <i>Latino</i> | .7869*** | .0876*** | .7917** | .0878** | .8006* | .0920* |
| <i>Married</i> | .8159*** | .0466*** | .8070*** | .0463*** | .8155*** | .0462*** |
| <i>Age (Years)</i> | .9575*** | .0023*** | .9594*** | .0023*** | .9589*** | .0022*** |
| <i>Male</i> | .9376 | .0571 | .9693 | .0593 | .9545 | .0603 |
| <i>Constant</i> | 1.437* | .2745* | 1.452* | .2809* | 1.532*** | .2951*** |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Table 9: Within-Model Coefficient Testing Comparing Program Participation

| Interaction Variable | Violent Misconduct | | Nonviolent Misconduct | |
|---|---------------------------|----------------|------------------------------|----------------|
| | T-score | P-Value | T-score | P-Value |
| <i>Educational/Vocational vs. Mental Health</i> | -1.174 | 0.240 | 19.029*** | 0.000*** |
| <i>Educational/Vocational vs. General Service</i> | 3.635*** | 0.000*** | 8.310*** | 0.000*** |
| <i>Educational/Vocational vs. Religious</i> | 115.115*** | 0.000*** | 42.921*** | 0.000*** |
| <i>Mental Health vs. General Service</i> | 10.09*** | 0.000*** | 2.972*** | 0.003*** |
| <i>Mental Health vs. Religious</i> | 177.26*** | 0.000*** | 12.681*** | 0.000*** |
| <i>Religious vs. General Service</i> | 9.246*** | 0.000*** | 9.751*** | 0.000*** |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Appendices

Appendix 1: Bivariate Results for Models 1-3

| | Model 1 n=14,132; | | Model 2 n=14,122; | | Model 3 n=14,121; | |
|---|-----------------------------|-----------------|-----------------------------|-----------------|-----------------------------|-----------------|
| | O.R. | Rob. SE | O.R. | Rob. SE | O.R. | Rob. SE |
| <i>Program Participant</i> | 2.585*** (+) | .1371*** (+) | --- | --- | --- | --- |
| <i>Program Count (#)</i> | --- | --- | 1.476*** (+) | .0356*** (+) | --- | --- |
| <i>Educational/Vocational Program Participant</i> | --- | --- | --- | --- | 2.328*** (+) | .1295*** (+) |
| <i>MH Program Participant</i> | --- | --- | --- | --- | 1.737*** (+) | .0717*** (+) |
| <i>General Service Participant</i> | --- | --- | --- | --- | 1.403*** (+) | .0917*** (+) |
| <i>Religious Program Participant</i> | --- | --- | --- | --- | .8247*** (-) | .0267*** (-) |
| <i>Constant</i> | .5459*** (-) | .0541*** (-) | .5381*** (-) | .0569*** (-) | .6088*** (-) | .0622*** (-) |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Appendix 2: Bivariate Results for Race/Ethnicity Models

| | Black Participants n=5,644; | | Latino Participants n=2,439; | | White Participants n=5,149; | |
|---|---------------------------------------|-----------------|--|-----------------|---------------------------------------|-----------------|
| | O.R. | Rob. SE | O.R. | Rob. SE | O.R. | Rob. SE |
| <i>Educational/Vocational Program Participant</i> | 2.491*** (+) | .1463*** (+) | 2.032*** (+) | .2403*** (+) | 2.224*** (+) | .1247*** (+) |
| <i>MH Program Participant</i> | 1.825*** (+) | .1998*** (+) | 1.895*** (+) | .2612*** (+) | 1.714*** (+) | .1080*** (+) |
| <i>General Service Participant</i> | 1.514*** (+) | .1228*** (+) | 1.414*** (+) | .1958*** (+) | 1.297*** (+) | .1115*** (+) |
| <i>Religious Program Participant</i> | .8658*** (-) | .0493*** (-) | .7439*** (-) | .0697*** (-) | .7817*** (-) | .0497*** (-) |
| <i>Constant</i> | .6593*** (-) | .0548*** (-) | .5578*** (-) | .1261*** (-) | .6079*** (-) | .0611*** (-) |

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Bibliography

- Agnew, R. & Peterson, D. (1989). Leisure and delinquency. *Social Problems* 36(4). 332-350.
- Ai, A., Aisenberg, E., Weiss, S., & Salazar, D. (2014). Racial/ethnic identity and subjective physical and mental health of Latino Americans: an asset within? *American Journal of Community Psychology* 53(1). 173-184.
- Alarid, L., Burton Jr., V., & Cullen, F. (2000). Gender and crime among felony offenders: assessing the generality of social control and differential association theories. *Journal of Research in Crime and Delinquency* 37(2). 171-199.
- Apel, R., & Horney, J. (2017). How and why does work matter? Employment conditions, routine activities, and crime among adult male offenders. *Criminology* 55(2). 307-343.
- Barnes, S. (2014). The black church revisited: Toward a new millennium DuBoisian mode of inquiry. *Sociology of Religion* 75(4). 607-621.
- Becci, I. & Dubler, J. (2017). Religion and religions in prison: Observations from the United States and Europe. *Journal for the Scientific Study of Religion* 56(2). 241-247.
- Bell, C., Bowie, J., & Thorpe, R. (2012). The interrelationship between hypertension and blood pressure, attendance at religious services, and race/ethnicity. *Journal of Religious Health* 51(1). 310-322.
- Bell, K. (2017). Prison violence and the intersectionality of race/ethnicity and gender. *Criminology, Criminal Justice, Law & Society* 18(1). 106-121.

- Blaine, B. & Crocker, J. (1995). Religiousness, race, and psychological well-being: exploring social psychological mediators. *Personality and Social Psychology Bulletin* 21(10). 1031-1041.
- Bonner, H., Rodriguez, F., & Sorenson, S. (2017). Race, ethnicity, and prison disciplinary misconduct. *Journal of Ethnicity in Criminal Justice* 15(1). 36-51
- Bozick, R., Steele, J., Davis, L. & Turner, S. (2018). Does providing inmates with education improve postrelease outcomes? A meta-analysis of correctional education in the United States. *Journal of Experimental Criminology* 14(1). 389-428.
- Brandon, M., Chard-Wierschem, D. & Mancini, M. (1999). Perceptions of the vocational education program in the New York State Department of Correctional Services. *Journal of Correctional Education* 50(1). 12-20.
- Brosens, D., De Donder, L., Dury, S. & Verte, D. (2015). Participation in prison activities: an analysis of the determinants of participation. *European Journal of Criminal Policy and Research* 22. 669-687.
- Butler, H. (2019) An examination of inmate adjustment stratified by time served in prison. *Journal of Criminal Justice* 64. 74-88.
- Camp, S., Gaes, G., Langan, N., & Saylor, W. (2003). The influence of prisons on inmate misconduct: A multilevel investigation. *Justice Quarterly* 20(3). 501-533.
- Camp, S., Klein-Saffran, J., Kwon, O., Daggett, D., & Joseph, V. (2006). An exploration into participation in a faith-based prison program. *Criminology & Public Policy* 5(3). 529-550.

- Case, P. & Fassenfest, D. (2004). Expectations for opportunities following prison education: A discussion of race and gender. *The Journal of Correctional Education* 55(1). 24-39.
- Carlson, A. (2018). Prisoners in 2016. Bureau of Justice Statistics. 1-35.
- Chamberlain, A. (2012). Offender rehabilitation: examining changes in inmate treatment characteristics, program participation, and institutional behavior. *Justice Quarterly* 29(2). 183-228.
- Clark, K. & Rydberg, J. (2016). The effect of institutional educational programming on prisoner misconduct. *Criminal Justice Studies* 29(4). 325-344.
- Cohen, L. & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review* 44(1). 588-608.
- Courtney, J. (2019). The relationship between prison education programs and misconduct. *The Journal of Correctional Education* 70(3). 43-58.
- Cretacci, M. (2003). Religion and social control: An application of a modified social bond on violence. *Criminal Justice Review* 28(2). 254-277.
- Darst Williams, S. (1985). No compiendo: the language barrier in the criminal justice system. *Corrections Compendium*. 6-9.
- Department of Justice. (2017). Prison Reform: Reducing Recidivism by Strengthening the Federal Bureau of Prisons. Retrieved September 14, 2020, from <https://www.justice.gov/archives/prison-reform>
- DelliCarpini, M. (2006). Working with literacy-level English language learners in correctional education settings: issues, challenges and best practices. *The Journal of Correctional Education* 57(3). 250-267.

- Du Bois, W.E.B. (1967 [1899]). *The Philadelphia Negro: A Social Study*. New York: Benjamin Blom.
- Eppler-Espstein, S. (2016). We don't know how many Latinos are affected by the criminal justice system. *Urban Wire: Race & Ethnicity*.
- Evans, D., Pelletier, E., & Szkola, J. (2018). Education in prison and the self-stigma: Empowerment continuum. *Crime & Delinquency* 64(2). 255-280.
- Ewert, S., Sykes, B. & Pettit, B. (2014). The degree of disadvantage: incarceration and inequality in education. *ANNALS, American Academy of Political and Social Science* 651. 24-43.
- Ford, J. (2006). Some implications of denominational heterogeneity and church attendance for alcohol consumption among Hispanics. *Journal for the Scientific Study of Religion* 45(2). 253-267.
- Gardner, S. (2014). Working toward literacy in correctional education ESL. *Journal of Research and Practice for Adult Literacy, Secondary, and Basic Education* 3(1). 49-54.
- Gerber, J. & Fritsch, E. (1995). Adult academic and vocational correctional education programs: A review of recent research. *Journal of Offender Rehabilitation* 22(1/2). 119-142.
- Golub, A., Johnson, B., Taylor, A., & James Liberty, H. (2002). The validity of arrestees' self-reports: variations across questions and persons. *Justice Quarterly* 19(3). 477-502.

- Greenberg, E., Dunleavy, E., & Kutner, M. (2007). Literacy behind bars. Results from the 2003 National Assessment of Adult Literacy Prison Survey. *U.S. Department of Education*. 1-344.
- Grosholz, J. & Semanza, D. (2018). Assessing the relationship between physical health and inmate misconduct. *Criminal Justice & Behavior* 45(10). 1527-1546.
- Hall, L. (2015). Correctional education and recidivism: toward a tool for reduction. *Journal of Correctional Education; Lanham* 66(2). 4-29.
- Hancock, B., & Sharp, P. (1993). Educational achievement and self-esteem in a maximum security prison program. *Journal of Offender Rehabilitation* 20(1/2). 21-33.
- Harer, M. & Steffensmeier, D. (1996). Race and prison violence.” *Criminology* 34(3). 323-355.
- Hedges, P. (2014). Interreligious engagement and identity theory: assessing the theology of religious typology as a model for dialogue and encounter. *Journal for Academic Study of Religion* 27(2). 198-221.
- Henry, B. (2020). Adversity, mental health, and substance use disorders as predictors of rule violations in US prisons. *Criminal Justice & Behavior* 47(3). 271-289.
- Horney, J., Osgood, D., & Marshall, I. (1995). Criminal careers in the short-term: Intra-individual variability in crime and its relation to local life circumstances. *American Sociological Review* 60(1). 655-673.
- Jackson, L. & Giles, D. (2009). An exploration of the social identity of mental health inpatient service users. *Journal of Psychiatric and Mental Health Nursing* 16. 167-176.

- Jiang, S., Fisher-Giorlando, M., & Mo, L. (2005) Social support and inmate rule violations: A multilevel analysis. *American Journal of Criminal Justice* 30(1). 71-86.
- Kerley, K., Copes, H. Tewksbury, R. & Dabney, D. (2011). Examining the relationship between religiosity and self-control and predictors of prison deviance. *International Journal of Offender Therapy* 55(8). 1251-1271.
- Krause, N. (2016). Assessing supportive social exchanges inside and outside religious institutions: exploring variations among whites, Hispanics, and blacks. *Social Indicators Research* 128(1). 131-146.
- Mann, A., Spjeldnes, S., & Yamatani, H. (2013). Male county jail inmates: A profile and self-reported human service needs by race. *Journal of Evidence-Based Social Work* 10(1). 265-275.
- Marti, G. (2015). Latino Protestants and their congregations: Establishing an agenda for sociological research. *Sociology of Religion* 76(2). 145-154.
- Marcum, C. Hilinski-Rosick, C., & Freiburger, T. (2014). Examining the correlates of male and female inmate misconduct. *Security Journal* 27(3). 284-303.
- McCollum, S. (1978). Latino prisoners in the USA: managing effective participation. *Quarterly Journal of Corrections* 2(2). 42-46.
- McEvoy, A. (2013). Routine activities theory reconsidered: The case of inmate gambling. *Academy of Criminal Justice Sciences* 38(1). 1-8.
- Meade, B. (2014). *Moral communities and jailhouse religion: Religiosity and prison misconduct*. El Paso: LFB Scholarly Publishing. 11-132.

- Meyer, C., Tangney, J., Stuewig, J. & Moore, K. (2014). Why do some jail inmates not engage in treatment services? *International Journal of Offender Therapy and Comparative Criminology* 58(8). 914-930.
- Meyer, S. (2011). Factors affecting student success in postsecondary academic correctional education programs. *The Journal of Correctional Education* 62(2). 62-94.
- Nally, J., Lockwood, S., Knutson, K., & Ho, T. (2012). An evaluation of the effect of correctional education programs on post-release recidivism and employment: An empirical study in Indiana. *Journal of Correctional Education* 63(1). 69-88.
- Nelson, N. (2007). The design and implementation of an education program for African American Inmates. *The Journal of Correctional Education* 58(3). 262-267.
- Nowotny, K. (2015). Race/ethnic disparities in the utilization of treatment for drug dependent inmates in US state correctional facilities. Conference Papers – American Sociological Association. 1-24.
- Nowotny, K., Masters, R. & Boardman, J. (2016). The relationship between education and health among incarcerated men and women in the United States. *BioMed Central Public Health* 16. 1-8.
- Noy, S., & O'Brien, T. (2018). An intersectional analysis of perspectives on science and religion in the United States. *The Sociological Quarterly* 59(1). 40-61.
- Osgood, D., Wilson, J., O'Malley, P., Bachman, J., & Johnston, L. (1996). Routine activities and individual deviant behavior. *American Sociological Review* 61(1). 635-655.

- Outten, H. Schmitt, M., Garcia, D., & Branscombe, N. (2009). Coping options: missing links between minority group identification and psychological wellbeing. *Applied Psychology: An International Review* 58(1). 146-170.
- Paat, Y. Hope, T., Lopez, L., Zamora, H., & Salas, C. (2017). Hispanic ex-convicts perceptions of challenges and reintegration. *Journal of Offender Rehabilitation* 56(2). 87-109.
- Pager, D., Western, B., & Sugie, N. (2009). Sequencing disadvantage: Barriers to employment facing young black and white men with criminal records. *The Annals of the American Academy* 623(1). 195-213.
- Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology* 36(4). 859-866.
- Peterson, R. D., & Krivo, L. J. (2012). *Divergent social worlds: Neighborhood crime and the racial-spatial divide*. New York: Russell Sage Foundation.
- Prison Fellowship (2020). FAQ: Prison Educational Programs. Retrieved September 14, 2020, from <https://www.prisonfellowship.org/resources/training-resources/in-prison/faq-prison-educational-programs/>
- Pryor, M. & Thompkins, D. (2013). The disconnect between education and social opportunity for the formerly incarcerated. *American Journal of Criminal Justice* 38. 457-479.
- Rose, C. (2004) Women's participation in prison education: what we know and what we don't know. *The Journal of Correctional Education* 55(1). 78-100.

- Ruddell, R. & Ortiz, N. (2012). Critical issues facing Hispanic prisoners. Published in *Hispanics in the U.S. Criminal Justice System: The New American Demography* by Urbina, M. 225-246.
- Sternthal, M., Williams, D., Musick, M. & Buck, A. (2012). Religious practices, beliefs, and mental health: variations across ethnicity. *Ethnicity & Health* 17(1-2). 171-185.
- Tabak, M. & Mickelson, K. (2009). Religious service attendance and distress: The moderating role of stressful life events and race/ethnicity. *Sociology of Religion* 70(1). 49-64.
- Tajfel, H. & Turner, J. (2004). Social identity theory of intergroup behavior. *Key Readings in Social Psychology. Political Psychology: Key Readings*. Psychology Press. 276-293.
- Taylor, R., Mouzon, D., Nguyen, A., & Chatters, L. (2016). Reciprocal family, friendship, and church support networks of African Americans: findings from the National Survey of American Life. *Race and Social Problems* 8(1). 326-339.
- Tewksbury, R., & Stengel, K. (2006). Assessing correctional education programs: the student's perspective. *The Journal of Correctional Education* 57(1). 13-25.
- Thomas, R. (2012). Expanding the purpose of a prison education classroom. *Journal of Research and Practice for Adult Literacy, Secondary, and Basic Education* 1(3). 173-178.
- Upadhyayula, S., Ramaswamy, M., Chalise, P., Daniels, J & Freudenberg, N. (2017). The

- association of ethnic pride with health and social outcomes among black and Latino men after release from jail. *Youth & Society* 49(8). 1057-1076.
- Vacca, J. (2004). Educated prisoners are less likely to return to prison. *Journal of Correctional Education* 55(4). 297-305.
- Vuk, M. & Dolezal, D. (2019). Idleness and inmate misconduct: a new perspective on time use and behavior in local jails. *Deviant Behavior*. 1-23.
- Wolf Harlow, C. (2003). Education and correctional populations. U.S. Department of Justice, Office of Justice Programs, *Bureau of Justice Statistics Special Report*. 1-11.
- Wooldredge, J., Griffin, T., and Pratt, T. (2001). Considering hierarchical models for research on inmate behavior: predicting misconduct with multilevel data. *Justice Quarterly* 18(1). 203-231.
- Wortham, R. (2009). W.E.B. Du Bois, the black church, and the sociological study of religion. *Sociological Spectrum* 29(1). 144-172.
- Zuckerman, P. (2002). The sociology of religion of W.E.B. Du Bois. *Sociology of Religion* 63(2). 239-253.