FROM AMERICAN SERVICE TO DISSERVICE: AN EXPLORATION OF THE IMPACT OF MILITARY EXPERIENCE AMONG AN INCARCERATED POPULATION

by

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ABSTRACT

This dissertation research examines the impact of military service among an incarcerated population. It addresses the gaps identified within the prior literature by taking a closer look at the association between service experience and criminal justice outcomes. Specifically, the present study explores whether branch type, combat exposure, age of entrance, service length, and discharge status impact the number of lifetime arrests, current offense type, and institutional misconduct. This research uses data from the U.S. Bureau of Justice Statistics' 2004 Survey of Inmates in State and Federal Correctional Facilities. Multivariate analyses indicate that different elements of military participation influence criminal and deviant behaviors. Length of service significantly impacted the quantity of lifetime arrests, whereas age of entry, combat experience, and service length were important conditions in offense types. Inmates with military experience were found to be more likely to participate in institutional misconduct. The following service elements were predictors of prison misconduct as well: age of entry, length of service, branch affiliation, and discharge status. The findings in this study have theoretical implications for the use of criminological theory in military service research, and they provide suggestions for future military and criminal justice policy development.

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TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1: INTRODUCTION

Background

America has spent over a decade at war. This has heightened awareness of and interest in veterans' affairs across multiple disciplines as many veterans return home and reintegrate into civilian society. Military service is a "turning point" in the lives of the men and women who serve (Sampson & Laub, 1996). Participation is not a uniform experience, though. Military components such as combat exposure, branch type, and service era differ across individuals. These characteristics create variation in the service experience.

More than 21 million Americans are U.S. military veterans (U.S. Census Bureau, 2010). An additional 2.7 million still serve in either an active duty or reservist capacity within the U.S. military (Department of Defense, 2013). A body of literature is dedicated to examining the impact of military service on the quality of life. These works focus mainly on health-related effects (both physical and mental), but include some sociological outcomes such as socioeconomic status, educational attainment, employment status, and family structure (Anderson & Mitchell, 1992; Bachman, Freedman-Doan, O'Malley, Johnston, & Segal, 1999; Basham, 2008; Bray, Marsden, & Peterson, 1991; Elder, 1986; MacLean & Elder, 2007; Sampson & Laub, 1996). In spite of this, gaps remain in the current research addressing criminal justice outcomes.

The literature across diverse disciplines has shown that elements related to military service can lead to antisocial (Resnick, Foy, Donahoe, & Miller, 1989) and criminal behaviors

(Pajak, 2014) that can contribute to multiple problems down the road such as entanglement within the criminal justice system (Brown, 2008, 2011; Brown, Stanulis, Theis, Farnsworth, & Daniels, 2013). For instance, lessons learned from military operations over the years have illustrated an association between combat exposure and social, physiological, and physical problems. Specifically, issues of alcohol abuse, drug addiction, and homelessness, which are all related to criminal behavior, have been linked to war zone experience (Brown, 2011; Brown et al., 2013; Cavanugh, 2011; White, Mulvey, Fox, & Choate, 2012; Wright, Carter, & Cullen, 2005).

Researchers have also suggested this special population presents a public safety issue due to the advanced and specialized training service members receive in comparison to the general population (White et al., 2012). They argue that military service desensitizes individuals to violence and killing and that they never lose their militaristic skills after being released from service (Archer & Gartner, 1976; Castle & Hensley, 2002; Grossman, 1996). In addition the literature has highlighted the issues of reintegration that veterans experience when returning to civilian life after military participation; the inability to reintegrate successfully back into civilian society can lead to interaction with the criminal justice system (Brown, 2008; Brown, 2011; Brown, et al., 2013; Browne, 1974; May, 1979).

Furthermore, there exists an economic concern also, as a result of interaction with the criminal justice system. Entrance into the criminal justice system incurs costs at every stage from arrest to incarceration. The recent establishment of veteran treatment courts has also strained the criminal justice system budget. Though these courts report low operational costs using existing

U.S. Department of Veterans Affairs resources (Cavanugh, 2011), the courts still accrue financial expenses. A lack of cultural competence and understanding of this population among the criminal justice community can create problems for veterans and their needs (Brown, 2011; Brown et al., 2013), ultimately generating further strain on the criminal justice system.

Ultimately, a shortage of clear information exists on the relationship between military service and criminal justice outcomes. The existing literature lacks consistency and volume (Bouffard, 2003; Bouffard & Laub, 2004). Research conducted within criminal justice and criminology disciplines include a range of methodologies and remains divided, as some researchers have found that participation in the military has a crime prevention effect (Bouffard, 2010; Bouffard & Laub, 2004), while others disagree (Wright et al., 2005).

Despite the fact that armed forces participation is not a uniform experience, in the available literature, the operationalization of service is narrow in scope, examining the concept generally through the use of a dichotomous measure of participation (yes/no). Although, some researchers have incorporated additional measures of military service like combat exposure, service era, and age of entry, the variables lack consistency across studies (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Culp, Youstin, Englander, & Lynch, 2013; Wright, et al., 2005). If military participation produces a criminogenic effect, then it could potentially create an issue for the safety of society. Therefore, researchers must expand knowledge about this special group as it relates to criminal behavior.

Statement of the Problem

As previously mentioned, criminal justice and criminology research on military service is limited. The concern for veteran interests has only recently gained momentum within the field, as illustrated by the increased number of studies in the past decade (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Culp et al., 2013; Wright et al., 2005). Another potential pitfall is the availability of data sources examining veterans within criminal justice contexts. Most researchers develop data sets to address a specific issue other than military experience, such as juvenile delinquency, or to examine the characteristics and behaviors of inmates. They often use veteran status as a demographic control variable rather than a research focus. This in turn restricts the researchers' ability to evaluate the effects of armed forces participation on criminal justice outcomes.

Additionally, the variables used within these studies to measure criminality and military service are narrow in scope. Researchers have historically operationalized criminal justice outcomes as arrest rates and offense types (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Culp et al., 2013; Wilson & Zigelbaum, 1983; Wright et al., 2005) and, to a smaller extent, conviction rates (Card, 1983; Yager, Laufer, & Gallop, 1984). Explorations into the institutional misconduct of veterans remain limited. However, the literature has shown that institutional behavior is important because it is viewed as a continuum of behavior and has implications for community adjustment (Walters & Crawford, 2013). Similarly, Brown (2008) explained that service members undergo an institutionalization process during their military participation that influences behavior post-service. Exploring veterans' behavior in prison may predict pre-prison

behaviors, in terms of whether service experience carries over into the social landscape. As in, investigating what service components influence criminal and deviant behavior. A look at prison behavior may provide some context for post-incarceration conduct.

Furthermore, researchers have restricted the independent variable of military service to a dichotomous measure of participation (yes/no). Some studies have included additional variables of combat exposure (Card, 1983; Culp et al., 2013; Wilson & Zigelbaum, 1983; Yager et al., 1984), age of entry (Wright et al., 2005), and the era in which an individual served (Bouffard, 2010; Bouffard & Laub, 2004; Culp et al., 2013) as a way of expanding upon the concept of armed forces experience. The inconsistency across the measures of military participation, criminal justice outcomes, and methodologies has produced mixed findings (Bouffard, 2003). For this reason, the impact of service on criminal justice outcomes remain unclear.

Overall, the military experience varies among individuals, due to their level of participation in the armed forces. The state of the current research provides a platform from which to build. It has identified gaps within the literature, such as the need to expand the concept of service participation by introducing additional service variables and the inclusion of an institutional misconduct variable to gauge future behaviors.

Summary of the Present Study

The present study aims to add to the body of knowledge about the impact of military service by taking a closer look at the association between service participation and the number of lifetime arrests, current offense type, and institutional misconduct among incarcerated veterans.

This research will address the gaps identified within the prior literature, such as the use of inconsistent criminal justice and service measures and methodologies (Bouffard, 2003). Addressing these empirical voids will improve the understanding of the association between military participation and criminal justice outcomes. The study will use the Bureau of Justice Statistics' 2004 Survey of Inmates in State and Federal Correctional Facilities (SISFCF), a nationally representative study of inmates in U.S. state and federal prisons. It contains information on veteran status, service history, criminal history, institutional activities, mental health, and substance use.

This research differs from previous research in that it will examine the potential criminal impact of military service across a variety of measures such as age of entry, length of service, branch type, discharge status, and combat exposure. Since the institutional behavior of incarcerated veterans has been ignored in prior criminal justice and criminology literature, a prison misconduct dependent variable is also included. Accordingly, this study will address the following three research questions:

1) Is military service related to the number of arrests among incarcerated veterans?

    a) What components of military service are related to the number of arrests?

2) Is military service related to the current offense type among incarcerated veterans?

    a) What components of military service are related to the current offense type?

3) Is military service related to inmate institutional misconduct among incarcerated veterans?

a) What components of military service are related to institutional misconduct?

Several theoretical and policy implications will emerge from this study. This research will be able to identify which elements of the military service experience (i.e., length of service, age of entry, discharge status, branch type, and combat exposure) have a relationship with the criminal justice outcomes of lifetime arrests, current offense type, and institutional misconduct. This will enhance the understanding of this unique population among the criminal justice community. The findings can also provide guidance for the expansion veteran reintegration programs that address additional needs of service members other than combat experience. Ultimately, the study aims to contribute to the existing body of knowledge by further exploring the association between components of military participation and criminal justice outcomes.

Plan of the Dissertation

Chapter 2 reviews the current literature on military service, focusing on its impact on post-service outcomes such as mental health, substance abuse, family stability, as well as criminal and deviant behaviors. This section lays out the research questions and provides a description of the current study. Chapter 3 describes the study methods. The participants of this research include inmates from the Survey of Inmates in State Correctional Faculties. Chapter 4 features the results of the study. The findings reveal which components of service play a role in specific criminal and deviant behavior. Finally, Chapter 5 presents a discussion of the results, along with the implications of the study, and describes study limitations and directions for future research.

CHAPTER 2: LITERATURE REVIEW

The U.S. military is a paternalistic organization regimented with a strict hierarchy. Emphasis is placed on group cohesion and collaboration rather than individual achievement. Military recruits undergo intense physical and mental discipline to transform them into competent service members (Petrovich, 2012). However, military service is not a uniform experience for all of the men and women who serve. Elements such as branch type, service era, and combat exposure are not universal experiences shared by all members, and individuals may react to these differences in a variety of ways.

The military comprises five main service branches: Army, Navy, Marines, Coast Guard (now part of the Department of Homeland Security), and Air Force. Petrovich (2012) compared joining an armed forces branch to becoming a part of a new family with a distinct subculture. Service branches are unique from one another in terms of overall mission, traditions, vocabularies, and practices (Petrovich, 2012). Therefore, the military experience can be shaped by the branch in which one participates.

Additionally, the impact of military service can differ by the historical era in which one participates. Researchers have suggested a few possible explanations as to why a variation exits: (1) fluctuations in selection processes, (2) military training and experiences that are era specific, and (3) differences in post-service opportunities (MacLean & Elder, 2010). Selection processes have fluctuated over time and across service eras, as a result of changing draft policies and the use of an all-volunteer force (AVF). The variation in recruitment is institutionally driven by the

manpower needs of the service. Likewise, military training and experiences are influenced not only by branch participation, but by whether an individual serves during peacetime or during a time of military conflict. The conflict's style and tactics (i.e., jungle warfare versus urban combat), along with the perception of public support for the military, also plays a role. Finally, the post-service opportunities available, such as education or employment, also help to shape the service experience.

Comparatively, not all service members share combat participation. Exposure to combat is institutionally determined by occupational assignment in the military. Individuals assigned to jobs with high levels of combat exposure have an increased likelihood of experiencing imminent danger or death as compared to others who receive lower risk assignments (Kriner & Shen, 2010). Milam (2013) noted that, among Vietnam War veterans, the military experience varied across individuals due to differences in where they served, when they served, and their particular military occupational assignments. Higher combat survival rates are often associated with more mental health injuries. That is, service members return home with more invisible scars than external wounds. If left unresolved, these conditions can lead to substantially larger problems, such as entrance into the criminal justice system or, in some cases, death.

Overall, participation in the military affects the lives of the men and women who serve. It is a turning point in the lives of these individuals (Sampson & Laub, 1996). The military provides a highly disciplined and structured environment for individuals. Brown (2008) observed that participants undergo an intense socialization process in which they are transformed into competent service members, thus acquiring new skills that may not be easily transferable into to

the civilian world. Individuals are not de-programmed after their discharge, and hence, their service experience can influence the social landscape (Brown, 2008). Ultimately, military participation can cause problems for some veterans as they attempt to function in society after service.

Post Military Outcomes: Transitioning Back into Society after Service

A substantial amount of research is available on the impact of military service on an individual's quality of life. These studies span multiple disciplines and investigate a variety of outcomes. The findings remain mixed across the various domains, as the literature has illustrated both positive and negative impact of participation on those who have served. While the military remains a positive experience for most, for others it can produce detrimental effects, including death (Elder, 1986).

Though the majority of literature centers on health related outcomes (Dirkwager, Bramson, & Van Der Ploeg, 2001; Fontana & Rosenheck, 1994; Settersten, 2006), the social sciences have contributed significantly to the knowledge base. Researchers have referred to service as the "bridging environment" for future outcomes (Browning, Lopreato, & Poston, 1973; Xie, 1992). That is, military participation offers exposure to opportunities such as education, job training, leadership skills, social independence, and discipline that individuals may not have been afforded without military experience (Browning, et al., 1973; Elder, 1986; Elder & Caspi, 1990; Elder & Hareven, 1993; Sampson & Laub, 1996; Xie, 1992). Researchers have shown that military service, especially during the World War II era, substantially benefited

the lives of individuals from disadvantaged environments or marginalized social groups. In contrast, service during later eras has been viewed as a disruption to veterans' lives because of the educational (Teachman, 2007) and socioeconomic (Angrist, 1998; MacLean & Elder, 2007) setbacks faced upon discharge. The time consuming nature of military service, coupled with changes to the GI Bill benefits system in the mid-1970s, generated an educational gap among service members and their civilian counterparts which, in turn, affected post-service employment for veterans (Teachman, 2007).

The stability of the family structure of service members remains unclear. Rentz and colleagues (2006) could not substantiate a link between military families and family violence. They explained that the inconsistent findings likely resulted from the reporting differences among military and civilian agencies. Comparatively, Bradley (2007) found male veterans were less likely to engage in domestic violence than their civilian counterparts. On the other hand, additional studies have reported the opposite, stating higher rates of domestic violence among military families when compared to non-military ones (Marshall, Panuzio, & Taft, 2005; McCarroll et al., 2000).

Participation in combat presents different experiences from those generated by general military service. Service members deployed to hostile environments are actively involved in a war. Thus, the degrees of combat exposure vary from being simply stationed in a war zone to witnessing and participating in combat actions (Brown et al., 2013). Close to eight million service members have been deployed to war zones since the Korean War; some served multiple tours (U.S. Census, 2014). Combat exposure has been associated with a variety of negative

outcomes such as substance abuse, mental health issues, criminal activity, and deviant behaviors (Brown, 2011; Brown et al., 2013; White et al., 2012). Additionally, combat exposure has a negative influence on family stability (Gimbel & Booth, 1994; MacLean & Elder, 2007; Pavalko & Elder, 1990; Ruger, Wilson, & Waddoups, 2002). More specifically, combat exposure has been linked to a higher incidence of marital problems and interpersonal violence among families of combat veterans than those of non-combat veterans and civilians (Basham, 2008; Taft et al., 2007).

Research into the substance abuse patterns of service members has revealed that the use of illicit drugs during service were more commonly reported among Vietnam War veterans (Browne, 1974; Wright et al., 2005), whereas post-Vietnam era service members in general are more likely to have engaged in heavy alcohol use over illicit drugs (Bachman et al., 1999; Bray et al., 1991). Tsai, Rosenheck, Kasprow, & McGuire (2013) found alcohol abuse or dependence to be the most common diagnosis among incarcerated veterans of all service eras. Researchers have explained the shift in substance use across service eras as a result of the implementation of aggressive Department of Defense policies prohibiting the use of illicit drugs during service and requiring random drug testing of service members. In addition, research reports that heavy alcohol use could reflect ineffective policies targeting alcohol use (Bachman et al., 1999; Bray et al., 1991). Participation in combat operations correlates with both alcohol and drug use after discharge (Brown, 2011; Brown et al. 2013; Wright et al., 2005). Studies have revealed that the use of illicit drugs and excessive alcohol consumption among combat veterans is associated with their combat experience, often as coping mechanisms (Brown, 2011; Brown et al. 2013).

Similarly, military experience significantly affects an individual's mental health (Anderson & Mitchell, 1992). Mental disorders among veterans are more commonly associated with combat exposure (Basham, 2008; Hoge, Terhakopian, Castro, Messer, & Engel, 2007; Tsai et al., 2013). Higher rates of diagnoses for depression and post-traumatic stress disorder (PTSD) were reported among Vietnam War and later-service eras veterans, as compared to their civilian counterparts (MacLean & Elder, 2007; Tsai, et al., 2103). Symptoms of PTSD and traumatic brain injury(TBI), hypervigilance, anger, violence, and agitation, have been associated with criminal behavior, but veterans are often reluctant to access mental health services due to the stigma attached to them (Pajak, 2014) and the inadequate care offered (Tanielian & Jaycox, 2008). For example, Tanielian and Jaycox (2008) conducted a study of veterans (N=1,965) and found that 20 percent of veterans reported suffering from symptoms of PTSD or major depression. A little over half (53%) sought help for their symptoms. The total cost to society for these conditions that go untreated was estimated at $4 billion to $6.5 billion.

In sum, participation in the military influences an individual's life in both positive and negative ways. Although regarded as a beneficial experience for individuals from disadvantaged environments or marginalized social groups in terms of educational attainment and socioeconomic status, some components of armed forces participation (e.g., combat exposure) damage other people. Combat exposure has been associated with negative outcomes such as family problems, substance abuse, and mental health issues, all of which share an association with crime. The overall sentiment of military service remains conflicted.

Military Service and Criminality: Conflicting Perspectives

Military participation can positively or negatively impact criminal trajectories. Bouffard (2005) explained that the directional influence of participation is individually based. In other words, the effects of the military vary across members due to the differences in individual service experience. Though the general body of research lacks consistency and volume, and contains methodologies of varying levels of quality, it provides a foundation from which to build further research.

Military Service as a Crime Facilitator

A handful of studies have examined the relationship between service experience and crime, finding that military participation has a negative impact on one's life in terms of criminal and deviant behavior. Participation in the military also has been linked to a variety of negative outcomes including drug use, alcohol abuse, antisocial behaviors, and violence. Such outcomes are all associated with criminal and deviant behavior.

Researchers have tried to establish a link between military service and criminal and deviant behavior through substance abuse. Heavy alcohol use has been a common trend among service members (Bachman et al, 1999; Bray et al., 1991; Brown, 2011; Brown et al., 2013), and researchers have found alcohol abuse to be the most common disorder among incarcerated veterans (Tsai et al., 2013). Among the military population, alcohol abuse is a risk factor for criminal behavior (Brown, 2011). Similarly, high rates of drug use have been associated with military service (Landolfi & LeClair, 1976; Wright et al., 2005; Yager et al., 1984). Wright et al.

(2005) found that service in the Vietnam War was directly related to illicit drug use and indirectly related to arrest rates. The authors concluded that participation in the Vietnam War produced a negative effect for those included in their study sample. At this point, only an indirect link has been illustrated between military service, substance abuse and crime.

In addition, the literature has tried to associate armed forces participation and criminality through the types of offenses veterans commit. Several studies have reported that incarcerated veterans in general are serving time at higher rates for violent offenses (Greenberg & Rosenheck, 2012; Moses, 2009; Mumola, 2000; Noonan & Mumola, 2007) and sex crimes (Culp et al., 2013; Noonan & Mumola, 2007) compared to incarcerated non-veterans. Researchers have used these findings to illustrate the criminal propensity of veterans (Beckerman & Fontana, 1989).

Also, events experienced during combat service have been associated with antisocial behaviors (Resnick et al., 1989), violence (Rohlfs, 2010), arrests, and convictions (Yager et al., 1984). For instance, Resnick et al. (1989) discovered a significant link between combat exposure and adult antisocial behavior driven by the level of trauma experienced by the veteran. The social cost of the Vietnam War, in terms of veterans' postwar violence, has been estimated at $65 billion (Rohlfs, 2010).

Authors have also used theoretical applications and conceptual works to illustrate the negative influence of military service. Grossman (1996), Castle and Hensley (2002), and Lankford (2009) have suggested that the military fosters an environment that cultivates violent and aggressive behavior through its training and conditioning techniques. Similarly, Archer and

Gartner (1976) proposed the violent veteran model, in which veterans continue violence post-combat, as an explanation for post-Vietnam War homicide rates. Therefore, the authors argue that common strategies used during the training process (e.g., classical conditioning, operant conditioning, role modeling, and dehumanization techniques) to instill discipline and conformity reinforce these behaviors.

Military Service as a Protective Factor against Crime

Military participation can also steer individuals away from criminal activity. Sampson and Laub (1996, 2003) have viewed participation in the military as a turning point in an individual's life, because it provides a structured lifestyle, supervision, and exposure to prosocial bonds. Bouffard (2003, 2010) and Bouffard and Laub (2004) failed to find an association between service experience and the beginning of criminal behavior. By comparison, in a cross-national study of the military and crime relationship, Sun et al. (2007) found that countries with larger militaries and no conscription policies (e.g., drafts) had lower homicide rates. This result was tied to the total institution environment of the military in which individuals are separated from the wider community.

Research has also revealed that service has a positive influence for those with a prior criminal history. Shattuck (1945) discovered that men who entered the military with prior criminal records performed in the armed forces as well as those entering without records. Similarly, men paroled into the Army recidivated less, compared to men paroled into the community, 5.2 percent versus 22.6 percent, respectively (N=6,279). These findings remained

constant through the five-year follow up period as well, at 10.5 percent and 66.6 percent, respectively (Mattick, 1960). Card (1983) discovered that Vietnam War veterans who entered the service with prior criminal histories were less likely to be arrested upon discharge, whereas individuals without records were more likely to be arrested upon completion of service, especially for a violent offense. Bouffard (2003, 2010) and Bouffard and Laub (2004) found that, for Vietnam era veterans with prior criminal histories, participation in the military assisted in the desistance from crime for individuals. (It is important to note that role of criminal history within the military selection process is fluid and based on the contemporary issues of the service era.)

For those who enter the criminal justice system, veterans have different characteristics than non-veterans. Mumola (2000) and Noonan and Mumola (2007) reported that military service inmates had shorter criminal histories and were older, more educated, and incarcerated less frequently than inmates without military experience; only a small percentage of these inmates reported combat experience. As mentioned previously, research has linked combat exposure to negative outcomes, most notably substance abuse, mental illness, and criminal behavior, but only a limited portion (i.e., 20%) of military service inmates stated combat experience (Mumola, 2000; Noonan & Mumola, 2007). In addition, some literature has found that PTSD and mental illness did not increase the likelihood of incarceration (Erickson, Rosenheck, Trestman, Ford, & Desai, 2008; Shaw, Churchill, Noyes, & Loeffelholz, 1987). Despite the observation that higher rates of mental illness and PTSD exist among today's veterans, contemporary veterans are less likely to be incarcerated (Tsai et al., 2013).

The overall viewpoint of military participation and crime within the criminological and criminal justice literature is mixed. That is, the research remains divided on whether service experience has ultimately a positive or negative effect on an individual's life. These works have demonstrated that, for some, the military provides a structured, disciplined environment that encourages desistance from crime, and for others it has provided an avenue for entry into or continuation of criminal and deviant behaviors. While combat exposure has been shown to impact the lives of veterans, they are incarcerated at a lower rate than non-combat veterans and non-veterans. The next section explores studies examining the relationship between military service and criminal justice outcomes such as arrests, offense type, and institutional misconduct.

Military Service and Criminal Justice Outcomes

The previous pages provided a general overview of the conflicting perspectives of the impact of military service on criminality across multiple disciplines. This section describes the available research that has investigated the connection between military participation and the specific criminal justice outcomes of arrests, offense type, and institutional misconduct. A limited number of studies have examined the direct association between service experience and criminal justice outcomes (i.e., arrests and offense type) using multiple variables, methodologies, and criminal justice outcomes. Most studies have established indirect linkages. The outcome of institutional misconduct remains untouched within the research. This section highlights the current literature.

Arrests

Researchers have explored the nexus between military service and criminal behavior via arrests. Studies have demonstrated both indirect and direct links between arrest likelihood and service participation. First, Willbach (1948) explored the association between crime and military experience through an examination of official data (N=16,861) across a decade (1936 to 1946) from the New York Police Department. After performing frequency analyses on the data, which included both pre- and post-war years, he found that in 1946, men between the ages of 21 and 30 years old (the probable age range of World War II veterans during this year) had fewer arrests compared to the previous years, despite the rise in post-war crime. He further identified that men under the age of 20 years old were responsible for the rise in crime, not veterans. Thus, age appeared to supersede military status in terms of post-war crime. However, this test was indirect and did not allow for an examination of the link between military service and arrest at the individual level.

Another group of works has indicated that the era in which one participates is important to individual military experience (Maclean & Elder, 2007). A service era comprises the social conditions and historical context under which one participated (Cartwright, 2011; Elder & Caspi, 1990; Walls, 2011). Research in other domains has identified that era elements such as draft policies, an all-volunteer force, and public support influence post-military outcomes (Bachman et al., 1999; Bray et al., 1991; Browne, 1974; MacLean & Elder, 2007; Teachman, 2005, 2007; Tsai et al., 2013; Wright et al., 2005). Bouffard (2003) also noted that differences in the selection processes during service eras may affect outcomes. She emphasized the importance of

considering the selection process (i.e., recruitment strategies for those accepted into the service) when interpreting findings. The service member selection process varies and depends upon the manpower needs of the military. The transition from a conscription period to an AVF has changed recruitment strategies (Johnson & Kaplan, 1991). However, the impact of service era on criminal justice outcomes remains unclear.

Bouffard (2003) examined whether general military participation changed offending patterns among a Vietnam-era sample, using longitudinal data from Wolfgang's 1945 Philadelphia birth cohort (N=565) and Lyle Shannon's 1949 Racine, Wisconsin birth cohort (N=243). Offending was measured by official police contact (excluding traffic offenses) and the frequency of contact, from the age of 18 to the end of the follow-up period. Controlling for pre-military police contact, to include juvenile offenses and background demographics (i.e., race, education, and socioeconomic status), she found an overall reduction in later criminal offending among those who served when compared to those who did not. Military service was statistically significant in reducing arrest likelihood and arrest frequency across both cohorts, except for the Racine cohort, where the decrease in arrest likelihood was not statistically significant. Though Bouffard (2003) attempted to address military selection bias within this study by running additional analyses, the inclusion of the extra variables (e.g., IQ score, attitudes toward school, and draft status) did not change the findings. Ultimately, she found that armed forces participation in general provides a benefit for most men who served.

Researchers have also explored the timing of events, as in the historical context in which one served, to further understand the military service and crime association (Bouffard, 2010;

Bouffard & Laub, 2004; Tsai et al., 2013). Tsai et al. (2013) pulled data from the Health Care for Re-entry Veterans (HCRV) program (N=30,698) and the 2010 National Survey of Veterans (N=8,710) to assess the risk of incarceration among modern day veterans (i.e., those that have participated in the Operation Enduring Freedom [OEF], Operation Iraqi Freedom [OIF], and Operation New Dawn [OND])[1] compared to other veteran cohorts. After controlling for demographics, homelessness history, clinical status, and criminal history, the results showed that OEF/OIF/OND veterans are at a lower risk of incarceration compared to other groups of veterans and are more likely to report combat exposure. Testing arrest likelihood as an incarceration predictor, the findings revealed a difference in percentage of arrests and a statistically significant difference in lifetime arrests between the two groups at the bivariate level. Analyzing the incarceration predictors at the multivariate level among OEF/OIF/OND veterans yielded a finding that the number of lifetime arrests was not significant with that service era. In sum, service era may influence the engagement in criminal behavior. However, the study did not control for all crime related variables (i.e., socioeconomic status, educational level and juvenile delinquency) nor consider the amount of time since service discharge, which may impact these results across cohorts.

Similarly, Bouffard and Laub (2004) studied four different cohorts of men with juvenile records to determine whether participation in the military facilitated a desistance from crime over different service periods. They analyzed data from Lyle Shannon's 1942 (N=65) and 1949

[1]These conflicts were a part of the Global War on Terror initiative: Operation Enduring Freedom: The War in Afghanistan—2001-present; Operation Iraqi Freedom: The War in Iraq—2003-2011; Operation New Dawn: The U.S. withdraw from Iraq—2010-2011.

(N=125) Racine, Wisconsin birth cohorts, Wolfgang's 1945 Philadelphia birth cohort (N=173), and the National Longitudinal Survey of Youth (NLSY) (N=924), which captured the pre-Vietnam War to the early AVF service eras. Desistance from crime was measured two different ways: (1) by official police contact from the age of 18 to the end of the follow-up period, and (2) by the age of last offense (i.e., NLSY data was excluded from this analysis), both excluding traffic offenses. Controlling for pre-military police contact, to include juvenile offenses, and background demographics (i.e., race, education and socioeconomic status), the authors found that armed forces participation reduced arrest likelihood for delinquents and serious offenders compared to delinquents who did not enlist, but only a few models reported a statistically significant difference. In addition, the authors did not find the influence of military experience to be historically confined (i.e., restricted to a specific service era), as previous literature suggested, within their sample. Overall, they reported participation to be a marginally positive experience for delinquents in terms of arrest likelihood, due to the lack of significance within their models. However, it was unclear which specific component(s) of military service produced a desistance effect.

Next, focusing on one service era, Bouffard (2010) examined patterns of offending among those who served in the military during various periods of the Vietnam era (prior to 1964, between 1964, and 1968 and during or after 1968) with longitudinal data from Wolfgang's 1945 Philadelphia birth cohort (N=565) and Lyle Shannon's 1942 (N=155) and 1949 (N=243) Racine, Wisconsin birth cohorts. Offending was measured by official police contact, excluding traffic offenses, from the age of 18 to the end of the follow-up period. She controlled for pre-military

police contact, to include juvenile offenses, and background demographics (i.e., race, education and socioeconomic status), and found that, across all three cohorts, service members were more likely to have a juvenile police contact than their civilian counterparts. This trend continued when examining adult police contacts, but this finding was statistically significant with only one cohort. Hierarchical linear modeling was then employed to capture the influence of military service on arrest likelihood over the life course, which showed that service was not uniform across the three cohorts.

When broken down by military entrance period, Bouffard (2010) discovered differences in offending trajectories based on the year of joining. Again, veterans were more likely to have juvenile police contacts than non-veterans, specifically those that entered in later years. Despite this, individuals who entered during the later years of the Vietnam War (post-1968) experienced lower offending rates as compared to other service members and non-veterans. To confirm the findings and account for selection bias, the author performed a supplemental analysis across the Wolfgang's 1945 Philadelphia birth cohort matching (i.e., due to the availability of selection related variables) using propensity score matching and found strong results, which confirmed her research findings. Ultimately, military service has an impact on arrest likelihood, but it was the historical period of service that determined the specific direction.

A small number of studies have expanded upon a dichotomous measure of military experience to incorporate additional service elements like combat exposure or age of service entry to gain a better understanding of the influence of military participation on criminal behavior. For example, in an examination of the emotional and behavioral effects of service,

Card (1983) and Yager et al. (1984) discovered a link between arrest rates, service participation, and combat exposure. Analyzing Vietnam-era longitudinal data (N=1,500), Card (1983) explored the impact of military experience across multiple domains, to include criminal behavior among Vietnam War veterans, and non-Vietnam veterans, and non-veterans. She found that, among Vietnam War veterans, high PTSD scores were associated with greater arrest frequency. While Vietnam War veterans in general displayed more antisocial behaviors, including arrests, than the other groups, the three groups exhibited no statistically significant difference in arrest likelihood. In sum, combat exposure appears to affect individuals differently. However, the exclusion of control variables from the analyses may account for the mixed findings.

Similarly, Yager et al. (1984) investigated the association among military service, combat exposure, and arrest likelihood for veterans and non-veterans in a sample of randomly selected American men that were draft-eligible during the Vietnam War era (N=1,342). The authors controlled for background characteristics and criminal history and found no significant difference in arrest likelihood between non-veterans and Vietnam-era veterans. However, when the authors explored combat exposure the forecast changed. Combat exposure was examined in two ways: (1) by combat experiences, and (2) by participation in abusive violence (e.g., abuse against prisoners of war or civilians). The degree of combat exposure was measured through the use of a 14-point checklist, known as the combat scale, of possible violent incidents experienced by service members such as being wounded, seeing Americans or Vietnamese killed, and encountering mines or booby traps. Yager and colleagues (1984) discovered that for each point increase on the combat scale, the percentage of arrests increased by 1.23 percent for individuals

who served in Vietnam. Service members that reported experiencing heavy combat (i.e., 10 to 13 on the combat scale) had a 23 percent increase in arrest likelihood compared to those who reported relatively little or no combat. Though heavy-combat veterans experienced higher arrest rates in contrast to other Vietnam War veterans, three-fourths of heavy-combat veterans were not arrested post-service. Furthermore, individuals that participated in abusive violence had a 14 percent increase in arrests than those who did not, but this finding fell shy of statistical significance. Conversely, service members stationed in Vietnam during the war who did not encounter violence (i.e., combat experiences or participation in abusive violence) had fewer arrests than veterans who did not serve in Vietnam at all (Yager et al., 1984). Different levels of combat exposure seem to influence the individual participation in criminal behavior variably.

Finally, Wright et al. (2005) explored the connection between military service in the Vietnam War with later drug use and with arrest rates over a 15-year period using the Marion County Youth Study (N=667), a panel study of high-schoolers from Marion County, Oregon. They examined arrest likelihood during service, adulthood and cumulative arrests using official data, along with controlling for selection bias (i.e., socioeconomic status, education, juvenile criminal history, low self-control, and plans to enlist). The study revealed that lower class youths with prior histories of delinquency were more likely to have reported military service in the Vietnam War. Also, service in Vietnam strongly contributed to the increase of individual drug use. The authors stated that drug use is often linked to offending and prior histories of delinquency can often illustrate an established criminal propensity, but ultimately drug use was responsible for the increase in arrest rates, not participation in the armed forces (Wright et al.,

2005). Drug use affected arrest likelihood during service, post-discharge, and cumulative arrests. Similarly, the authors investigated the impact of age of service entry on the drug use and arrest likelihood, and found age of entry to be a significant predictor of drug use as it accelerated drug use for older entrants. Overall, none of the service variables predicted the variation in arrest likelihood to include age of entry.

The studies above have illustrated diverse methodologies to capture the direct and indirect effects of service on arrest likelihood. In assessing this association as a whole, the literature has shown that military participation serves as an insulator from crime in terms of arrest likelihood. However, a common limitation within the research, except for a few works, is that a dichotomous measure of military participation is utilized. Therefore, it remains unclear what aspect of the military serves as a crime-desistance mechanism. Studies that have included additional service variables lack volume and consistency in measurement. The same criticism applies to the use of control variables within these works as well. Furthermore, the literature did not examine behavior during military service. Wright and colleagues (2005) did examine arrests received during service, but they did not assess not service behavior. Service performance is an important variable because it enables researchers to better determine if criminality is a product of military experience or a continuation of previous behavior. Finally, the research was not demonstrated across other locales. Ultimately, future research on the association between armed forces participation and the likelihood of arrest would benefit from including additional components of service such as age of entry, length of service, branch type, discharge status, and combat exposure, along with a nationally representative sample.

Offense Type

Researchers have expressed concern that military participation facilitates post-service violence. That is, veterans undergo training that includes violent and aggressive tactics and other behaviors that are not unlearned once discharged. Consequently, veterans could continue this conduct in the civilian world (Castle & Hensley, 2002; Lankford, 2009). The literature has also shown that combat exposure, a component of military service, is associated with higher rates of PTSD (MacLean & Elder, 2007; Tsai, et al., 2103). Symptoms of PTSD are linked to criminal and deviant behaviors such as irritability, violence, aggression, and hypervigilance (Pajak, 2014). However, studies remain divided on whether veterans are more likely to perpetuate violence than non-veterans.

Researchers have examined the types of offenses veterans commit to explain the criminal propensity of veterans (Beckerman & Fontana; Willbach, 1948). In addition to arrests, Willbach (1948) examined the types of offenses committed among veterans using New York Police Department official data (N=16,861). He found that men between the ages of 21 to 30 (age range of ex-service men in year 1946) had fewer arrests than men aged 20 and younger for crimes of burglary, robbery, and larceny. However, they had more arrests for offenses against the person than any other age group. Willbach (1948) emphasized that this finding was not necessarily tied to effects of military service and has been consistent with this age group over the years among non-veterans. As stated in the previous section, this illustrates that age plays a role in crime, but the relationship between military and crime is unknown.

In 1989, Beckerman and Fontana investigated the connection between Vietnam veterans and the criminal justice system through a systematic review of both published and unpublished studies. They found no difference between arrest likelihood for Vietnam era veterans and non-veterans. However, when the authors included combat exposure, combat veterans reported greater arrest rates for primarily non-violent offenses than non-veterans and non-combat veterans.

More recently, using the data from the U.S. Bureau of Justice Statistics' official surveys, 1997 Survey of Inmates in State and Federal Correctional Facilities (SISFCF) and the 1996 Survey of Inmates in Local Jails, Mumola (2000) reported that, in comparison to non-veterans, veteran inmates were most commonly incarcerated for violent and sexual assault offenses and less frequently for drug offenses. Similarly, within the SISFCF 2004 survey wave, Noonan and Mumola (2007) found that veteran inmates were more commonly engaged in violent, public-disorder, and sexual assault offenses and were less likely to commit drug or property offenses as compared to non-veteran inmates. Though this research is informative, it establishes only an indirect link between armed forces participation and criminality.

Few studies have explored a direct link between service experience and offense type. There is a void in the research regarding whether military participation directly influences different offense types and what components of service are linked to specific criminal offenses. The few works available demonstrate what is known and provide a foundation on which to build.

Tsai et al. (2013) also explored offense type as a predictor of incarceration among modern day veterans and veterans of other cohorts utilizing data from the Health Care for Re-entry Veterans (HCRV) program (N=30,698) and the 2010 National Survey of Veterans (N=8,710). Offense types included: violent, property, drug, public order, probation or parole violation, and other. Results showed differences in frequencies of offense type. For instance, the most common offenses committed among incarcerated veterans overall were violent, property and/or drug offenses. Bivariate analyses revealed no statistically significant differences between offense types, expect "other" between the OEF/OIF/OND veterans and other veteran groups. However, the "other" offense type was not significant with OEF/OIF/OND service. Thus, service era may influence engagement in certain types of criminal behaviors across different cohort of veterans; but, it is unclear what offenses are associated with older service cohorts.

Within her early work, Bouffard (2003), using longitudinal data (N= 808), found that participation in military service facilitated a desistance from crime for veterans post-service in terms of arrest likelihood. She also explored violent offending, which was measured by police contact for the following offenses: murder, rape and other sexual offenses, robbery, and assault. After controlling for pre-military police contact, to include juvenile offenses, and background demographics (i.e., race, education, and socioeconomic status), Bouffard (2003) discovered that participation in the armed forces had no significant impact on later violent offenses, including their frequency. While, the findings may suggest that military experience reduces violent offending, the lack of statistical significance cannot definitively illustrate that expectation. Nonetheless, it is unclear what mechanisms of service are responsible for the results.

Likewise, Bouffard (2005) utilized the National Longitudinal Survey of Youth (N=5,406; all volunteer era) to investigate how individual characteristics (i.e., racial groups, social classes, and juvenile delinquents) interact with military participation and violent offending once in service. Violent offending was measured by the response to whether they had attacked someone with the intent to injure or kill that person. Service in general was related to an increase in later violent behavior, but only for certain groups. When the author analyzed this phenomenon by individual characteristics, she discovered that military experience facilitated participation of violent offending for Hispanics, delinquents, and individuals who reported a low socioeconomic status. The lack of knowledge of the individual armed forces experience, makes it difficult to explain why service participation affects individuals differently.

Since the individual military experience is unknown for the participants in the above studies, researchers have tried to explore additional service elements as a way to better understand the influence of military service on criminal behavior. Wilson and Zigelbaum (1983) explored the link between PTSD and criminal behavior among a national sample of Vietnam War combat veterans participating in a U.S. Department of Veterans Affairs community-based readjustment counseling service (N=114). Using the Vietnam-Era Stress Inventory to examine to assess the severity of PTSD, the authors found an association between combat factors, exposure to stressors in Vietnam, and legal outcomes. Specifically, they revealed that the level of combat participation correlated with offense types that most resemble combat actions such as manslaughter, assault, weapons charge, and disorderly conduct. For example, the number of weeks spent in Vietnam was statistically significant for manslaughter crimes. While, specific

combat roles (i.e., infantry, demolition, and grave registration) and homecoming factors (i.e., seeking counseling, drug use, and psychological isolation) were not statistically significant in terms of legal outcomes, PTSD, however, was associated with the engagement in such specific offense types as disorderly conduct, assault, weapons charge and driving under the influence. This illustrates that only certain aspects of combat experience influence the type of offenses in which veterans engage.

More recently, Culp et al. (2013) found that analyzing the components of military service, along with offense type, increased the accuracy of statistical models in terms of explanatory power. The authors explored the likelihood of incarceration across offense types (i.e., violent, property, drug, and sex) and included additional participation variables (i.e., wartime participation, draft era versus AVF) using the SISFCF data from the 1985 to 2004 survey waves and the Current Population Survey from 1985 to 2003 (N=446,218). In general, veterans were incarcerated more commonly for violent and sex crimes and less frequently for drug offenses than non-veterans were. Property crime rates remained the same for both groups. After controlling for demographics (i.e., age, race, ethnicity and gender), and social integration (i.e., education and socioeconomic status) factors, Culp and colleagues (2013) discovered that military service in general did not predict the odds of incarceration, yet it increased the incarceration likelihood for violent offenses and decreased it for drug crimes. Additionally, era of service was a predictor of incarceration. Individuals who participated during the draft-era in general were less likely (50%), and service members of the AVF were twice as likely to be in prison as non-veterans. Those who participated in combat also were less likely to serve time in

prison than those without combat experience. As a result, the odds of incarceration decreased across all offense types among combat veterans who were drafted, while AVF combat veterans experienced an increased likelihood of incarceration for drug offenses and sex crimes. Overall, the study provides explanatory power for criminal offending across specific crime types. However, the researchers did not control for criminal history, and the combat variable was not limited to those who served in combat, but also included individuals who served during an era of conflict, both of which may impact the findings.

In assessing military participation and arrest likelihood as a whole, while informative, the above literature highlights the need to explore further the association between various components of service and offense type. Of the studies that analyzed the association between military experience and criminal behavior beyond frequencies, most tended to focus on violent offending, and only a few have included other offense types (Culp et al., 2013; Tsai et al., 2013; Wilson & Zigelbaum, 1983). This should be expanded to include multiple offense categories to better capture a wide range of criminal behavior. Again, military service is measured with a dichotomous variable that masks the desistance mechanism of service. The few works that have teased out additional service components lack consistency in measures and fail to control for criminal history. Finally, most studies utilized data with small sample sizes that were not generalizable to all veterans. This makes it difficult to relate the study conclusions to the larger military population.

Inmate Institutional Misconduct

Research on the institutional behavior of inmates with military experience is virtually nonexistent. Most research has provided a profile of military service inmates through both quantitative and qualitative methods in terms of demographics, sociodemographics, offense type, criminal history, substance abuse, and mental health status over the years, but nothing to date has targeted institutional behavior or prison misconduct (Browne, 1974; Landolfi & LeClair, 1976; Lunden, 1952; Moses, 2009; Mumola, 2000; Noonan & Mumola, 2007). Institutional misconduct has been viewed as a continuity of behavior (Gendreau, Goggin, & Law, 1997; Sorenson & Davis, 2011) and has implications for community adjustment post-release (Walters & Crawford, 2013). Exploring institutional misconduct among offenders with armed forces experience provides insight into what aspects of military service influence the perpetuation of criminal and deviant acts in another institution—prison.

Inmate Behavior: Theoretical Perspectives. Within the fields of criminal justice and criminology, literature exists that focuses on the behavior and activities of incarcerated inmates. Institutional behavior is often explained by the theories of inmate adaptation to incarceration, such as importation and deprivation. Importation theory accounts for individual characteristics of inmates that are brought into the correctional facility, whereas deprivation theory focuses on institutional influences.

Importation theory asserts that individual level causes of crime are responsible for inmate adjustment in facilities (Irwin & Cressey, 1962). That is, individual norms, values, and beliefs

from the free world are brought into the institution and as a result help to guide the prison adjustment process. On the other hand, Sykes (1958) argued that inmate adjustment to confinement is shaped by the amount of deprivation they experience while being incarcerated. The pains of imprisonment characterize deprivation theory. Inmates experience a "loss of liberty, loss of goods and services, loss of hetero-sexual relationships, loss of autonomy and loss of security" (p.65) and therefore are forced to create their own code based on these losses. These competing philosophies provide the theoretical framework for the study of institutional behavior and outlines that both individual-level factors and facility characteristics influence the behavior of inmates.

Given this framework, several studies have illustrated that pre-prison behavior predicts institutional misconduct (Gendreau et al., 1997), and that certain types of prison misconduct forecasts community recidivism. Olson and Nadadur (2013), using the Survey of Inmates in State and Federal Correctional Facilities (SISFCF) 2004 survey wave data (N=13,888), found that criminal history (number of arrests, violent offense and total number of incarcerations) gender, education level, age, and marital status were all significantly predictive of write ups, whereas age was the only variable related to disciplinary action. Thus, a range of characteristics determines whether an individual receives a misconduct write up or disciplinary action.

Another consideration is that predictors are not universal across offense type (Leigey & Hodge, 2013; Steiner & Wooldredge, 2009). That is, different factors were important among different misconduct categories. Through a recent exploration of pre-incarceration predictors on prison misconduct and future recidivism among male inmates (N=3,039), Walters and Crawford

(2013) found that the significance of pre-prison characteristics was not uniform across all offense types. Age, criminal history and criminal thinking were the strongest predictors of high severity misconduct (i.e., assault against staff or inmates, escape, fighting with inmates, and possessing intoxicants) and recidivism offenses (i.e., assault and robbery). This indicates value in continuing to examine importation variables and their correlation with prison and community adjustment.

Prison adaptation also matters in the perpetuation of institutional misconduct. An examination of the SISFCF 1991 and 1997 survey waves Steiner and Wooldredge (2009) assessed whether certain predictor variables, including both pre-prison behaviors and prison adaption, of inmate misconduct varied by conduct type. They found that age, prior incarcerations, drug use, security level housed, and, in most cases, time served were all consistent predictors throughout all types of misconduct. The other variables varied on significance, depending on conduct type. It is important to investigate misconduct offenses separately, rather than lump them into one category, when exploring this phenomenon.

Again, with data from the 2004 SISFCF survey (N=14,499; state inmates only), Solinas-Saunders and Stacer (2012) discovered that inmates who received phone calls from the outside world, or who had work assignments were less likely to engage in verbal or physical assaults against prison staff or other inmates, whereas visitation from the outside world or participation in religious programming were not predictors of this misconduct. Both male and female inmates housed at higher security level prisons were more likely to participate in institutional misconduct due to the higher proportion of violent offenders, despite their personal prison experience. In essence, prison activities that most relate to military experiences (i.e., working assignment and

receiving phone calls while institutionalized) reduced the likelihood of misconduct. Inmates adapt to prison differently, and how they adapt impacts institutional misconduct.

Most importantly, Trulson, Haerle, DeLisi, and Marquart (2011) found among a sample of serious and violent delinquents released from a juvenile state correctional jurisdiction (N=1,804) that participation in assaultive conduct in prison predicted the perpetuation of similar conduct after incarceration. Therefore, it is important to explore institutional misconduct as it relates to post-incarceration community adjustment. Since 10.4 percent of inmates report to serving in the military, it would be worthwhile to investigate how military service affects institutional misconduct (Noonan & Mumola, 2007).

Military Total Institution. Military total institution (MTI) theory provides a framework by which to explain the institutional behavior of inmates with military experience. MTI is a concept coined by William Brown and constructed from Erving Goffman's (1961) total institution model (Brown, 2008, 2011; Brown et al., 2013). Though Goffman (1961) referenced life in the military barracks when originally proposing this model, his total institution model was not set out to explain the behaviors of service members. Brown (2008) built upon Goffman's (1961) model by applying military perspectives to its foundation. He explained that the military total institution process starts from recruitment. Through the five components of MTI, obedience, discipline, survival, sacrifice, and the establishment of benchmarks, veterans transform and become institutionalized (Brown, 2008, 2011). During this process, service members forgo their civilian values, norms, and beliefs and acquire new skills and behaviors that are not often transferable to the civilian world. They become entrenched into the military culture

and are not de-programmed from the MTI when discharged. As a result, veterans are found to carry over both their positive and negative military experiences into the civilian world (Brown, 2008, 2011; Brown et al., 2013).

Military service is an institutional environment similar to prison. From this theory, two conclusions can be proposed regarding the institutional behavior of veterans. First, as mentioned previously, pre-prison behaviors and characteristics, along with the adaption to prison guides participation in institutional misconduct. Since service members have already been exposed to elements such as isolation, strict surveillance, informal and formal social control, discipline, and similar elements in correctional facilities, adaptation to prison should be easier for service members then for non-veterans.

Second, the lack of military de-programming may tap into the institutional behavior of service members, as prison is another form institutionalization similar to military. That is, behavior while incarcerated could provide some context for service behavior. For these reasons, further exploration into the association between service participation and institutional misconduct is needed.

In summary, this chapter has so far presented a review of the current works across multiple domains and contexts, emphasizing criminal justice outcomes. This research is informative and provides a foundation from which to build further study. It has also highlighted gaps in the literature, including a lack of research, and the inconsistencies in the use of study variables and methodologies. While studies of military experience and criminality have been

explored through arrest rates and offense types, they have ignored variables of institutional misconduct and failed to adequately capture the various components of service (i.e., age of entry, length of service, branch type, discharge type and combat exposure). When examining the relationship between military participation and criminal justice outcomes, studies should pay attention to other aspects of service as well. Criminological theory provides a framework in which to construct additional service mechanisms that may be most related to criminal behavior.

Additional Considerations of Military Service

There is no specific criminological theory devoted to the impact of service on criminal activity. Within the available literature, however, arguments have been developed under three major theoretical frameworks: Laub and Sampson's (2003, 2006) developmental life-course theory, Akers' (1996, 1999) social learning theory, and Agnew's (1992) general strain theory. These theories, along with their application to military participation, are described below.

Life-Course Theory and Military Service

While there is stability in human behavior, there are also important changes that occur over time. Sampson and Laub (1996, 2005) state that life offers multiple trajectories. Environmental factors and human agency, as opposed to individual characteristics, are responsible for producing turning points in an individual's life. Turning points are processes, not events, which can facilitate either positive or negative change (Laub & Sampson, 2003, 2006; Sampson & Laub, 2005).

Under life-course theory, the stability and changes in an individual's life are responsible for guiding criminal trajectories. In other words, "life does not simply unfold but rather is constructed as situations and offenders' reactions to them emerge at unexpected times and indeterminate ways" (Laub & Sampson, 2006, p. 523). Changes in criminal behavior are illustrated through four different stages: (1) a structural turning point (e.g., marriage or a job); (2) an increase in informal control (e.g., monitored and punished for deviant behavior); (3) a change in routine activities (e.g., structured and prosocial responsibilities); and (4) a commitment to a new life (Laub & Sampson, 2006; Sampson & Laub, 1993, 1996, 2003). The establishment of social bonds during these junctures describes the variation of crime during adulthood. Individuals who develop stable, positive social bonds are less likely to head in a criminal trajectory.

Job stability has been identified as a valuable turning point. The stronger the bonds developed from this turning point, the less likely individuals are to engage in crime and delinquency. Military service is regarded as a positive turning point in the literature. The short-term effects of armed forces participation can produce long-term effects, such as desistance from crime (Sampson & Laub, 2005).

Elements of this theory can be applied to the military experience (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Sampson & Laub, 1993, 1996, 2003). An assumption of life-course theory explains that different points in time equal different effects. In other words, the timing of events is important. Therefore, the age at which one enters military service (age of

entry) and how long an individual serves (length of service) influences the impact of this turning point.

Furthermore, Sampson and Laub (1996, 2005) argue that behavioral changes are a response to social conditions. Social conditions of service such as supervision, isolation, loss of autonomy, discipline, and the introduction to a new peer group, result in behavioral changes among service members. Variations in behavioral change can be illustrated by the differences across social conditions experienced during service participation. Military branch and combat exposure are socialization elements of military participation where branch type influences the types of behaviors learned and reinforced during service, and combat exposure is not experienced by all service members. The variation across post-military conduct can reflect the socialization experience.

Finally, the authors stress that the event itself is not important, but the bonds formed from the participation in the event are key (Sampson & Laub, 1993, 1996, 2003). Whether or not the bonds developed from military service are prosocial or antisocial can positively or negatively influence the life trajectory. Along the same lines, as social bonds develop, the interaction between social control and learning mechanisms can reinforce conventionality or delinquency or encourage a desistance from deviant behaviors (Thornberry, 1987). That is, the military can help individuals without stable criminal careers to get out of crime. Some factors that impact the quality of these bonds are branch affiliation, length of service, and combat experience, because these elements are not uniform across service members.

Altogether, life-course theory provides a foundation in criminological theory in which to examine components of military service (i.e., age of entry, length of service, branch type, combat exposure, and discharge status) that can affect criminal behavior. Researchers have found that military participation does impact the life-course in terms of post-service opportunities (Elder, 1986), and have utilized this theory as a framework for the study of military participation and criminal outcomes in which they found no direct link between service and future crime (Bouffard, 2003, 2010; Bouffard & Laub, 2004; Wright et al., 2005).

Social Learning Theory and Military Service

Social learning theory is an extension of Sutherland's differential association theory (Akers, 1996, 1998; Akers & Sellers, 2004), which assumes that all behavior, whether antisocial or prosocial, is learned from the association with others. Social learning theory expands the mechanisms of learning via operant conditioning, where individuals are encouraged or discouraged from behavior, through reinforcements and punishments. The same learning processes exists for both positive and negative behaviors.

Social learning theory is centered on four concepts that explain crime participation: (1) associations, (2) definitions, (3) differential reinforcement, and (4) imitation. People first associate with like-minded individuals from whom they learn new behaviors, and the anticipated reinforcement of this conduct drives behavior imitation. Therefore, exposure to and reinforcement of deviant actions will allow individuals to adopt the deviant conduct as their own (Akers, 1996, 1998; Akers & Sellers, 2004).

The military relies on traditional conditioning techniques (i.e., classical conditioning and operant conditioning) to train service members (Castle & Hensley, 2002). Individuals adapt to the military environment through observation and behavioral reinforcement. During basic training, service members associate with new peer groups and are taught new values, norms and beliefs that are reinforced and imitated throughout their service experience. Group punishments are enforced as a mechanism to both teach and reinforce these behaviors. Therefore, in accordance with social learning theory, how much the individual takes away and/or learns from the group instruction is what influences crime.

Some literature has suggested that criminal behavior results from military participation through the social learning process (Castle & Hensley, 2002; Grossman, 1996; Lankford, 2009). Certain behaviors taught during service, including violence and aggression, are not untaught when discharged. However, military experience also instills important values within individuals such as duty, loyalty, respect, and discipline. In essence, service can produce both positive and negative effects. The degree, duration, and reinforcement of antisocial behavior to which individuals are exposed during participation can provide a possible explanation for the participation in criminality. That is, the amount of time spent immersed within the military culture, to include branch affiliation and participation in combat situations, can influence the effect of service on post-service outcomes.

Strain Theory and Military Service

General strain theory is an expansion of Emile Durkheim's (1893) anomie theory and Robert Merton's (1957) strain theory, according to which individuals are steered toward criminal activity when expectations are not met. Agnew (1992) takes a micro-level approach and broadens the sources of strain. He explains that three types of strain produce crime: (1) failure to achieve goals, (2) removal of positively valued stimuli, and (3) confrontation with negative stimuli. Strain is created through blocked opportunities and individual shortcomings, the loss of relationships, relocation, or an illness; and by negative actions of others, victimization, negative school or work experiences, and so on (Akers & Sellers, 2004). The crux of this theory is not the strain itself but, more importantly, how one copes with the strain. The negative feelings produced by the strain lead to criminal activity. The type of response, whether conforming or deviant, relies on both internal and external constraints such as peer associations, self-control, and beliefs (Agnew, 1992; Akers & Sellers, 2004).

For some, military service can be a source of strain, as service members suffer a loss of civilian freedom and autonomy, relocation, and isolation. They also experience strict discipline and are exposed to aggressive behavior. These are all elements linked to the aforementioned three types of strain that produce crime. The degree of strain experienced through participation in the armed forces can vary by branch affiliation as a result of the differences among training and missions, as well as combat participation and pre-service characteristics. Grand combat-related branches such as the Army and the Marine Corps can produce higher amounts of strain than other branches, due to their intense training and missions. The type of discharge received from

service completion can illustrate how an individual responded to the strain produced by service participation, positively or negatively.

The application of life-course theory, social learning theory, and strain theory to a military service perspective has teased out additional components of service that need to be included in future research (Agnew, 1992; Akers, 1996, 1998; Akers & Sellers, 2004; Sampson & Laub, 1996). Some of these components are: (a) age of entry, (b) length of service, (c) discharge status, (d) branch type, and (e) combat exposure. Each element contributes to the individual variation across the service experience. They are further described below.

Age of Entry. The literature has indicated that military participation has the ability to impact the life course of individuals (Sampson & Laub, 1996, 2003). According to life-course theory, the introduction to, and desistance from crime, are contingent upon the turning points in one's life, and the timing of events is significant. The age at which an individual enters the military could determine whether service steers people away from crime or facilitates criminal activity. Age of entry can also influence the perception of strain experienced by military participation. Maturity can play a role in how individuals perceive certain aspects of military participation, such as relocation, isolation and discipline.

Some research has identified age of entry as an important influence (Elder 1986; Elder, Shanahan, & Clipp, 1994; Sampson & Laub 1996, Wright et al. 2005). More specifically, Wright et al. (2005) using a life-course framework, found that those who entered the service at an older age had higher rate of drug use compared to those who entered young. Coupled with the

theoretical perspective of life-course theory, in which service is a turning point, and strain theory, in which the perception of military strain varies across individuals, age of entry into the armed forces should be included when analyzing the phenomenon of military service and criminal outcomes.

Length of Service. The amount of time spent in the military can aid in the determination of whether military participation is a crime inducer or a crime insulator. Sampson and Laub (1996, 2003) suggest that bonds formulated from military participation can affect criminal trajectories. The longer in duration that bonds, antisocial or prosocial, are in place the more influential they are. In addition, the length of service is important when assessing the social learning and strain producing components of military service. The stronger or more intense the conditioning is, the higher the rewards for service are. If service members are exposed to antisocial behavior during military participation, then the length of service can be associated with greater risk of post-service problem behaviors. For these reasons, researchers should also consider an individual's length of time spent in the armed forces when examining military service.

Discharge Status. Some studies have incorporated the concept of prior criminal history into the analyses of armed forces participation and criminal behavior to determine whether or not service is a protective factor (Bouffard 2003, 2005, 2010; Bouffard & Laub, 2004; Culp et al., 2013; Wright et al., 2005). A common criticism within the literature is that these studies contain no indicator of an individual's behavior during his or her military participation (Bouffard, 2010). An individual's discharge status from the military is an assessment of behavior and performance

during that person's time in the armed forces. That assessment can illustrate whether an individual was able to conform to the structure of military and, for those who received negative discharge statuses, can indicate that the aspects of service (e.g., constant surveillance, isolation, routine activities, and discipline) are a source strain for some. Additionally, the examination into discharge status could reveal that post-service participation in crime may result from re-integration difficulty rather than military service itself. Therefore, discharge status should be included in future research.

Branch Type. A look into the type of military branch in which one served could be significant in examining the relationship between military service and criminal behavior (Bouffard, 2003). Each branch of the military operates differently, because training methods and conditioning strategies vary widely across branches (Brown, 2008). Training techniques and duty assignments have the ability to create violent individuals (Castle & Hensley, 2002; Grossman, 1996; Lankford, 2009). Therefore, the differences among branches could contribute to the variation in the military experience among service members, because they are socialized differently.

Research on military branches has focused primarily on Marine Corps and Army populations (Brown, 2011; Tanielian & Jaycox, 2008). These branches are commonly referred to as the combat branches (MacLean & Elder, 2007), because they have higher rates of ground troops (Rohlfs, 2010) and are more likely to operate in combat areas (Walls, 2011). Tanielian and Jaycox, (2008) also found higher rates of PTSD and major depression in these two branches than in the other branches. Unfortunately, little is known about other branches of service.

During the training process, service members learn behaviors such as discipline, aggression, and respect. They observe this conduct through their leaders and peers and then experience behavioral reinforcement through group reward and punishment. This is also a time when veterans swap their civilian values and norms for those accepted by the military culture. The severity of the socialization process differs by branch type, so different branches may produce different outcomes. Military service branches experience a variation in training, organization structure, and behavior reinforcement. The combat branches of Army and Marine Corps emphasize ground infantry skills, whereas the Navy and Air Force focus on sea and air operations, respectively. This contributes to the difference in social learning processes and the exposure to strain across branches. For that reason, studies should consider branch type when analyzing the relationship between military service and criminality.

Combat Exposure. The literature remains divided on whether combat exposure influences the life-course positively or negatively. Researchers have found linkages between combat exposure and a host of subsequent issues such as drug and alcohol abuse, violence, arrests, and mental health issues (Brown, 2008; Rohlfs, 2010; White et al., 2012; Wright et al., 2005). On the other hand, Culp et al. (2013) reported that service during wartime did not affect subsequent incarcerations. While literature within the criminal justice and criminological fields has examined the relationship between combat exposure and criminal outcomes, it is still in its infancy.

Not all service members participate in combat. The behaviors and skills developed and reinforced through combat participation, coupled with the perception of the service member's

overall experience, may explain the mixed results. The discrepancies among the research findings and this theoretical backing illustrate the need to include the variable of combat exposure when assessing this relationship.

Current Study

The current study attempts to fill the gaps in extant research. This will be accomplished primarily through the incorporation of additional factors to expand upon the concept of military service, as well as the addition of an institutional misconduct dependent variable. The research questions and additional variables are derived from the aforementioned studies.

RQ 1: Is military service related to the number of arrests among incarcerated veterans?

The studies described above have provided a foundation for the current research in examining the number of lifetime arrests among this population. These works have established a need to incorporate additional service variables to better gauge the impact of military participation on future arrests. Most of the literature has found that armed forces experience produced desistance from crime for individuals with an allotted criminal record but were unable to determine which service mechanisms were responsible for that. Extending service beyond a dichotomous measure and including proper controls related to the crime allows for better assessment of military experience.

This literature has already identified some service elements of interest for further exploration. For example, Wright et al. (2005) highlighted the importance of age of service entrance as it relates to outcomes associated with criminal behavior. Other research has found

mixed results regarding combat experience and arrest likelihood (Card, 1983; Yager et al., 1984). The research remains contradictory, and it is important to identify which elements of military service are responsible for the deterrence or continuation of crime.

RQ 2: Is military service related to the current offense type among incarcerated veterans?

Several works have examined the types of offenses veterans engaged in, as compared to the general population, and have reported mixed findings. Most studies have relied on frequencies to illustrate this relationship, and few have explored the association between military service and offense type (Bouffard, 2003, 2005; Culp et al., 2013). Most of these works have focused primarily on violent offending, yet none identified the characteristics of armed forces participation that are associated with violent offending. Examining a singular offense type fails to accurately capture the concept of criminal behavior.

Researchers have established an indirect link between violent offending and combat related PTSD. However, other elements of service have not been incorporated into the research examining offense type. Exploring the branch type, discharge status, age of entry, and length of service among incarcerated veterans could reveal the types of offenses that are influenced by an individual's service experience.

RQ 3: Is military service related to inmate institutional misconduct among incarcerated veterans?

Since no research exists on the relationship between military service and prison misconduct, a framework for the examination into the institutional misconduct of armed forces

inmates emerges from the general study of institutional behavior. Institutional misconduct is regarded as a display of behavior continuity in terms of pre-prison behavior and post-prison conduct. Importation theory and deprivation theory have illustrated the complexity of the prison adjustment process for inmates. MTI explains that service members are institutionalized through the duration of service and are often not de-programmed after discharge, resulting in the incorporation of military experience in their social landscape. A combination of importation and deprivation theories, along with MTI, may explain the institutional misconduct of veteran inmates. That is, their military experience will influence the frequency and institutional misconduct type.

Overall, this chapter's review of the literature has shaped the research questions of the current study. This study will build on empirical voids and address previous studies by introducing more military service variables and exploring institutional misconduct among incarcerated veterans. The following chapter on the methodology will detail the variables to be used in the current study, along with a description of the data, and statistical analyses.

CHAPTER 3: METHODOLOGY

This chapter outlines the methodology for the present study. The goal of this research is to explore the association between various components of military service (i.e., age of entry, length of service, branch type, discharge type, and combat exposure) and the criminal justice outcomes of lifetime arrests, offense type, and institutional misconduct using a nationally representative sample of incarcerated inmates. Secondary data is used to address the research questions outlined in the previous chapter. A description of the data source, study variables and analytical strategy follows.

Data

The data for this study come from the 2004 Survey of Inmates in State and Federal Correctional Facilities (SISFCF). The SISFCF is a Bureau of Justice Statistics sponsored survey collected by the U.S. Bureau of the Census. The survey provides a nationally representative snapshot of inmates in American state and federal prisons by collecting information through personal interviews across multiple domains such as criminal history, current offense and sentence, personal characteristics, family background, health and mental health history, prior drug and alcohol use, and prison activities (United States Department of Justice, 2004). The survey's history extends back to the mid-1970s and traditionally included interviews with only state inmates. Within this study, only state inmates are examined due to the heterogeneity of the sample.

Data collection for the 2004 SISFCF occurred between October 2003 and May 2004. Responses were collected through computer-assisted personal interviews, which lasted about an hour each. The response rates were 89.10 percent for state inmates (United States Department of Justice, 2004).

Multistage Sampling

The survey employed a two-stage sampling design. In the first stage, the correctional facilities were chosen, and in the second stage, the participants were randomly selected. State prisons were chosen from two universe files that included prisons recorded on the 2000 U.S. Census and correctional facilities opened between the time of the census and June 2003. Institutions with populations that exceeded the national inmate sampling interval of 75 (i.e., male populations over 6,445 inmates and female populations over 1,808 inmates), as well as those who reported medical, mental health and geriatric care functions to more than 1,500 male or 750 female inmates were automatically included in the sample.

The remaining state facilities were stratified by census region (i.e., Northwest except New York, New York, Midwest, South except Florida and Texas, Florida, Texas, West except California, and California). Once stratified, prisons were organized by population size and, finally, selected by the probability proportional to size approach (United States Department of Justice, 2004). Two hundred ninety-seven state facilities (231 male prisons, and 66 female prisons) with a reserve sample of 20 additional institutions (16 male prisons, and 4 female prisons) were included in the initial first-stage sample selection. However, some facilities were excluded due to non-interviews or being deemed out of scope, which eliminated of 14 state

prisons, and added four female state reserve prisons to compensate for the loss of female state institutions. Thus, a total of 287 state prisons were included in the sample (United States Department of Justice, 2004).

The second stage of the sampling method involved the selection of inmates. For state inmates, researchers were provided a list of those who used a bed the previous night by the facility, and they assigned them individual numbers. After the numbers were entered into the computer, a software program that randomly chose a starting point and skip interval selected the participants for the survey. A total of 13,098 male inmates (i.e., approximately 1 in 85 male state inmates) and 3,054 female inmates (i.e., approximately 1 in 24 female state inmates) from state facilities were initially chosen. Ultimately, 14,499 interviews for the state survey were completed (United States Department of Justice, 2004). Due to the data's complex nature, a weighting variable will be added into the analyses, and survey-data methods in STATA will be employed to account for the cluster-sampling design.

Variables

Dependent Variables

The dependent variables of interest for this study tap into different types of criminal and deviant acts. They are: (a) *number of lifetime arrests*, (b) *current offense type*, (c) *number of institutional disciplinary infractions and write-ups*, and (d) *institutional misconduct offense type*. The prior literature has used number of arrests and offense types (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Culp et al., 2013) as dependent variables, but an institutional

misconduct variable is added to the present study to explore behavior continuity among this population.

Lifetime Arrests. The criminology and criminal justice literature has commonly used arrest records to measure criminal behavior. More importantly, arrests have also been utilized as a dependent variable within works to examine the association between military participation and criminality (Bouffard, 2003, 2010; Bouffard & Laub, 2004; Card, 1983; Tsai et al., 2013; Willbach, 1948; Wright et al., 2005; Yager et al., 1984). Researchers have consulted arrest records to make inferences about the connection between military service and arrest likelihood, but very little research has explored the impact of participation in the military on future arrests (Bouffard, 2003, 2010; Bouffard & Laub, 2004; Wright et al., 2005). For this reason, the current study includes the number of lifetime arrests as a dependent variable.

The number of *lifetime arrests* is measured by inmates' responses to the question, "How many times have you ever been arrested, as an adult or a juvenile, before your [current] arrest?" (United States Department of Justice, 2004). This is a count variable and responses ranged from 0 to 99 arrests (responses over 40 were re-verified within the survey to ensure response accuracy). The use of this variable addresses the following research question: "Is military service related to the number of arrests among incarcerated veterans?"

Based on the previous research and the assumptions of life-course theory, a negative relationship is expected between lifetime arrests and general service participation, because both have illustrated a crime desistance effect. However, when military service components (i.e., age

of entry, length of service, branch type, discharge status and combat exposure) are teased out, the forecast changes. Combat exposure is predicted to have a positive relationship with the number of lifetime arrests, as the previous research indicates (Card, 1983; Yager et al., 1984). Conversely, individuals who receive a satisfactory performance discharge are expected to have a lower number of previous arrests as compared to other discharge statuses. This conclusion is drawn from the literature illustrating that the majority of incarcerated veterans have shorter criminal histories and honorable discharges (Brown, 2011; Mumola, 2000; Noonan & Mumola, 2007).

Army service members are predicted to have a higher number of lifetime arrests compared to other military branches, because the Army is the largest branch and attracts a wide array of individuals with diverse backgrounds due to its open recruitment standards. In addition, studies have revealed that most veteran inmates served in the Army (Brown, 2011; Mumola, 2000; Noonan & Mumola, 2007). The relationship among lifetime arrests, age of entry, and length of service is less clear. Sampson and Laub (1996) stated that the timing of events is important and that the variables, age of entry, and length of service are time related. Previous research has demonstrated both the positive and negative effects on later arrest rates associated with the age at which one enters the military (Bouffard, 2003; Wright et al., 2005). Similarly, the length of time a service member is exposed to positive or negative social conditions can cause different behavioral changes.

Current Offense Type. Some research has investigated whether an association exists between participation in the military and post-service violence (Archer & Gartner, 1976;

Beckerman & Fontana, 1989; Bouffard, 2003, 2005; Rohlfs, 2010). To demonstrate the criminal propensity of veterans post-discharge, a majority of studies examined the types of offenses service members commit (Beckerman & Fontana, 1989; Browne, 1974; Culp et al., 2013; Landolfi & LeClair, 1976; Moses, 2009; Mumola, 2000; Noonan & Mumola, 2007; Tsai et al., 2013). This approach is misleading, because it fails to explore the influence of military experience on certain offenses. This can be corrected by examining the relationship between service elements and specific crime types. Therefore, this study uses the dependent variable *current offense type*.

The survey inquires about current offense type through the following question: "For what offenses are you now in prison?" To respond, inmates could choose from a possible 78 categories of crimes (United States Department of Justice, 2004). This is a hierarchical measure, and responses for the most serious offense are recoded into five different categories: (a) violent offenses (e.g., murder, kidnapping, armed robbery), (b) property offenses (e.g., burglary, auto theft, forgery/fraud), (c) drug offenses (e.g., trafficking, possession, use), (d) sex offenses (e.g., rape, sexual assault, lewd acts with children), and (e) other offenses (e.g., driving while under the influence, weapon offenses).[2] *Violent offense* is the reference category. This was chosen because little is known about the participation in other crime types among the veteran population.

[2] Offenses included are: (a) *violent offenses*: murder, unspecified homicide, voluntary/non-negligent manslaughter, manslaughter-vehicular, manslaughter-non-vehicular, kidnapping, armed robbery, unarmed robbery, aggravated assault, simple assault, assault public officer, blackmail/extortion/intimidation, hit and run driving, child abuse, and violent offenses-other, (b) *property offenses*: burglary, arson, auto theft, forgery/fraud, grand larceny-theft over $200, petty larceny-theft under $200, larceny/theft-value unknown, embezzlement, stolen property-receiving, stolen property-trafficking, destruction of property, hit/run driving-property damage, unauthorized use of vehicle, trespassing, and property offenses-other, (c) *drug offenses*: trafficking: heroin, cocaine or crack, other controlled substances, marijuana/hashish, drug unspecified, possession/use: heroin, cocaine or crack, other controlled substances, marijuana/hashish, drug unspecified, heroin violation-offense unspecified, cocaine or crack violation-offense

This variable addresses the research question, "Is military service related to the current offense type among incarcerated veterans?" Based on the assumptions of life-course theory, social learning theory and strain theory, it is predicted that branch type, discharge status, length of service, age of entry and combat exposure will impact crime type. Military service facilitates the adoption of new behaviors through the reinforcement of training. Social conditions can also influence conduct changes. Within this group, individuals who report combat exposure are expected to commit violent offenses or offenses related to reintegration struggles such as "other" offenses (e.g., driving under the influence). Army and Marine Corps service members are predicted to be more likely to engage in violent crimes and sex offenses due to their specialized training focusing on ground infantry skills, their frequent operation in war zones, and their high rates of mental illness (i.e., PTSD, TBI, major depression), which include symptoms of violence, anger and agitation reported among these groups as compared to other branches. Additionally, sexual assaults and violent crimes were the most common offenses committed among active duty personnel between the years 1994 to 2004, primarily among the Army and Marine Corps branches (Mumola & Noonan, 2007). Likewise, service members who receive a satisfactory performance discharge (i.e., released under honorable or general conditions) are expected to be more likely incarcerated for a violent crime. Previous research has found that incarcerated veterans with honorable discharges are more likely to have shorter criminal histories, but commit

unspecified, other controlled substance violation-offense unspecified, marijuana/hashish violation-offense unspecified, and drug offenses- violation/drug unspecified, (d) *sex offenses*: rape-force, rape-statutory-no force, sexual assault-other, lewd act with children, forcible sodomy, and (e) *other offenses*: escape from custody, weapons offense, parole violation, probation violation, rioting, habitual offender, contempt of court, offenses against courts/ legislatures/commissions, traffic offenses-minor, driving while intoxicated, driving under the influence, driving under the influence-drugs, family related offenses, drunkenness/vagrancy/disorderly conduct, morals/decency-offense, immigration violation, obstruction-law enforcement, invasion of privacy, commercialized vice, contributing to the delinquency of a minor, liquor law violations, public order offenses-other, bribery and conflict of interest, felony-unspecified, and misdemeanor-unspecified.

higher rates of violent offenses compared to other offense types and non-military inmates (Mumola, 2000; Noonan & Mumola, 2007). The direction of impact for age of entry and length of service is less clear.

Institutional Misconduct. Researchers have yet to investigate institutional misconduct among offenders with military experience, which may indicate future compliance with the law. The research on general institutional misconduct has illustrated a continuity of behavior for both pre-prison behaviors and community adjustment (Walters & Crawford, 2013). Brown (2008) explained that individuals are exposed to Military Total Institution (MTI) throughout the duration of service. Individuals become institutionalized and acquire new skills and behaviors often not transferable in the civilian world. He argues that service members are not de-programmed from the military when discharged, thereby influencing reintegration back into society. It is predicted that inmates with military experience in general are less likely to engage in institutional misconduct while in prison due to their previous exposure to institutionalization while in the service.

Following the tenets of life-course theory, it is predicted that length of service and age of entry will have a negative association with institutional misconduct. The type of discharge an individual receives from the military could predict their institutional behavior; that is, those who received a satisfactory performance discharge status are less likely to participate in misconduct compared to those who received unsatisfactory discharges. Also, individuals who report combat exposure are more likely to engage in institutional misconduct, as these individuals are more readily exposed to violence and aggression. Finally, inmates with Army or Marine Corps service

are predicted to have a lower frequency of disciplinary infractions, but to engage in more violent misconduct due to the strict discipline that these branches are subjected to.

The variables *number of disciplinary write-ups* and *infractions* and *infraction type* are compiled through a series of survey questions. These two variables address the following research question: "Is military service related to inmate institutional misconduct among incarcerated veterans?" The survey asks inmates: "Since your admission, have you been written up or found guilty of [infraction type]?" The survey asks separate questions regarding 14 possible types of institutional misconduct offenses: (a) drug violation, (b) alcohol violation, (c) possession of a weapon, (d) possession of an unauthorized substance or item, (e) verbal assault on a staff member, (f) physical assault on a staff member, (g) physical assault on another inmate, (h) verbal assault on another inmate, (i) escape or attempted escape, (j) being out of place, (k) disobeying orders, (l) any other major violation, (m) any minor violation, and (n) any other violation. After each type of offense, a supplemental question follows: "How many times?" (United States Department of Justice, 2004). The measure *number of disciplinary infractions* is a sum of all of the times an individual has been written up or found guilty across all types of infractions. This is a count variable and responses ranged from 0 to 597 times.[3]

Infraction type includes the types of misconduct for which the inmate was written up or found guilty. This is a hierarchical measure, and responses are recoded into the following categories: (a) *physical assault* (i.e., physical assault on staff or physical assault on another inmate), (b) *major violations* (i.e., possession of an unauthorized substance or item, escape or

[3] Removal of outliers were contemplated, however, among this group, they may provide value.

attempted escape, drug violation, alcohol violation, possession of a weapon, verbal assault on a staff member, verbal assault on another inmate, and any other major violation), (c) *minor violations* (i.e., being out of place, disobeying orders, any minor violation, and any other violation), and (d) *no misconduct*. *Major violations* include misconduct types in which inmates could receive additional charges, whereas *minor violations* include rule-breaking infractions. *No misconduct* will serve as the reference category, due to the exploratory nature of this dependent variable.

Independent Variables

The independent variables employed within the present study will expand upon the association between service experience and criminal justice outcomes. Traditionally, participation has been operationalized as whether or not one has served in the military (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004). Additional elements of service such as combat exposure (Culp et al., 2013; Wright et al., 2005), age of entry (Wright et al., 2005), and the time period in which an individual has served (Bouffard, 2010; Bouffard & Laub, 2004; Culp et al., 2013) have been included in the research, but has not had a consistent presence in the literature. Nevertheless, these measures are informative and have provided important information about the relationship between service participation and various outcomes. However, they do not capture the full range of military experience.

Bouffard (2003) noted that while the existing research has provided insight into the relationship of military participation and criminality, researchers have been unable to identify

which mechanisms of service create the desistance from or continuation of crime. Using prior research and a theoretical framework grounded in life-course theory, social learning theory, and general strain theory, the present study adds more components of service to provide a clearer picture of the association between military experience and criminal justice outcomes. These variables are: (a) *military participation,* (b) *combat exposure,* (c) *age of entry,* (d) *length of service,* (e) *discharge type,* and (f) *branch type.*

Military Participation. As stated previously, prior studies have examined the association between military service and crime through a dichotomous measure of participation (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004). To align with the existing research, this measure is included. Service participation is captured by the following question: "Did you ever serve in the U.S. Armed Forces?" (United States Department of Justice, 2004). Within the full sample, 10.4 percent of inmates reported having served in the military.

Combat Exposure. As mentioned in Chapter 2, an entire body of literature is dedicated to examining the links between combat exposure and various outcomes related to criminogenic factors. This research has illustrated that combat exposure can have a negative impact post-service on family stability, substance abuse, and mental health (Basham, 2008; Browne, 1974; Hoge et al., 2007; Taft et al., 2007; Wright et al., 2005). High rates of PTSD have been associated with combat exposure, and PTSD has been found to produce symptoms related to criminal behavior such as aggression, hypervigilance, and violence (Pajak, 2014; Resnick et al. 1989; Rohlfs, 2010). Additionally, Yager et al. (1984) reported higher rates of arrests and

convictions among combat veterans, compared to veterans without combat experience and non-veterans.

The state of the current research supports the argument for the inclusion of *combat exposure* as an independent variable within this analysis. The survey addresses the measure of combat exposure through the question, "During this time [in the military] did you see combat in a combat or line unit?" (United States Department of Justice, 2004). The *combat exposure* variable is coded as *(0) = no*, (*1) = yes.* Veterans without combat experience will serve as the reference category. This variable will be employed in statistical models examining veterans only.

Age of Entry. Prior research has observed that participation in social institutions such as the military can influence crime trajectories (Sampson & Laub, 1996, 2003; Sun et al., 2007). Sampson and Laub (1996, 2003) explained that it is the timing of events, not the event itself, makes a difference. Whether an individual entered the military at a young age (e.g., 18 years old) as opposed to an older one (e.g., 30 years old) can have a different effect for the individual.

Research across multiple domains has identified age of entry as an important influence (Elder 1986; Elder et al., 1994; Sampson & Laub 1996; Wright et al. 2005). Elder (1986) found that the age of service entry impacted the timing of other life events for service members such as marriage, education and employment, but did not alter the sequence or order of these events. In other words, the age of entry affects the life course. More pertinent, Bouffard (2010) found that participation in the armed forces was more beneficial for serious delinquents as an insulator from crime, whereas Wright et al. (2005) discovered that service was more harmful for those who entered the service at an older age in terms of increased drug use.

Age of entry captures the age at which veteran inmates entered the military. The survey does not specifically capture this question. Therefore, this variable is created by compiling the following three factors: (1) current age of inmate in years, (2) year of entry into the military, and (3) year of the interview. The inmate's age is subtracted from the year of the interview to establish the participant's birth year. From there, the birth year is subtracted from the year of entry. This is a continuous variable and found in statistical models examining veterans only.

Length of Military Service. Life-course theory (Sampson & Laub, 1996; Sampson & Laub, 2003) and, to a lesser extent, social learning theory and strain theory (Agnew, 1992; Akers, 1996, 1999; Akers & Sellers, 2004), provide a foundation for an argument about the amount of time spent in the military and its influence on criminal outcomes. The time spent in the military can help to identify the short-term and long-term effects of service. The amount of time spent socialized within the military environment and the length of time spent connected to social bonds, prosocial or antisocial, can affect criminal outcomes. Whether the social bonds of military participation are positive or negative will determine the direction of influence. Therefore, a *length of service* variable is included in this analysis.

A survey question inquires about how much time an individual spent in the military in terms of years, months, and days. In response, participants must recall and calculate their exact length of service, which prompts concerns of accuracy in the answers. To account for this potential limitation, a *length of service* variable is created through two additional survey questions that ask participants to recall year of service entry and discharge rather than calculate military duration to ensure better accuracy in reporting participation length. These are continuous

measures and responses ranged from 1941 to 2003.[4] The entry year is then subtracted from the last discharge year to generate the *length of service* variable. This is a continuous variable and utilized in statistical models examining veterans only.

Discharge Status. The type of discharge individuals receive upon exiting the armed forces reflects their military performance. This is commonly known as a characterization of service. An individual's behavior during military participation can indicate the onset of, or continued, delinquent behavior. Lunden (1952) found that close to one-third of 156 inmates admitted to having serious trouble during their time in the armed forces before their discharge from the military. However, most veterans who come into contact with the criminal justice system have reported receiving an honorable discharge from the military (Brown, 2011; Lunden, 1952; Mumola, 2000; Mumola & Noonan, 2007). The inclusion of a *discharge status* variable may shed some light on its impact on criminal outcomes. The prediction is that the type of discharge will link past behavior with current behavior.

In the survey, inmates are asked, "What type of [military service] discharge did you receive?" Possible responses included: (a) honorable, (b) general with honorable conditions, (c) general without honorable conditions, (d) other than honorable, (e) bad conduct, (f) dishonorable, and (g) other (U.S. Department of Justice, 2004). For the present study, the variable *discharge status* is recoded in four different categories: (1) *satisfactory performance*; (2) *less than*

[4] Individuals who reported they were not discharged (e.g., still in the military) were excluded from the data set (N = 1,532; n = 4) as their current military status was unclear.

satisfactory performance; (3) *unsatisfactory performance*; and (4) *other*.[5] *Satisfactory performance* includes discharges of honorable and general conditions, while *less than satisfactory performance* consists of other than honorable conditions. *Unsatisfactory performance* contains characterizations of service deemed bad conduct or dishonorable, and the category *other performance* includes all other types of discharges. This measure is coded as a series of dummy variables, with *satisfactory performance* as the reference category. This selection was made for the reason that the majority of military inmates were discharged honorably. This variable will be employed in statistical models examining veterans only.

Branch Type. Previous research has recommended examining the effect of military branch type on criminal outcomes (Bouffard, 2003, 2010). Grossman (1996), Castle and Hensley (2002), and Lankford (2009) have raised concerns about military socialization, expressing that the conditioning and reinforcement tactics employed during training encourage violence. Each branch of the military undergoes different training relating to their diverse missions. Therefore, individuals from different branches experience military service differently (Brown, 2008). Through a social learning approach, where new behaviors are learned and reinforced, the

[5] These categories were formulated on the description of discharge types. Administrative discharges include honorable, general and other than honorable discharges. Honorable discharges are awarded to those who served satisfactorily without incident, whereas general discharges are granted to individuals who for the most part served satisfactorily and the positive aspects of their performance outweigh the negative aspects. Persons receiving these types of discharges are eligible for veteran benefits unless otherwise noted. An other than honorable discharge is given to those who have established a pattern of unsatisfactory behavior that warrants discharge from the military and are commonly ineligible to receive veteran benefits. Bad conduct and dishonorable discharges are referred to as punitive discharges and are dispensed to service members that are court-martialed for a violation of military law. These individuals are ineligible to receive veteran benefits, and may receive additional restrictions such as the ability to own a firearms and have issues with finding civilian employment (Military Justice 101, n.d.). Tully (2008) explained that the majority of service members receive an administrative discharge; therefore if the categories were restricted to administrative versus punitive discharge, the effect of performance may be disguised.

differences in socialization among the branches relating to such influences as discipline, surveillance, exposure to violence, danger, and combat likelihood can produce different post-service outcomes for different individuals.

As mentioned in the previous chapter, the Army and Marine branches are considered the combat branches of the military (MacLean & Elder, 2007; Walls, 2011) and are found to suffer from mental health issues (e.g., PTSD, major depression, and TBIs) at higher rates than in other branches (Tanielian & Jaycox, 2008). The symptoms of PTSD and TBI are associated with criminal and deviant behavior. Including *branch type* in the study can identify whether certain military branches are related to criminal outcomes.

Branch type is measured in the survey by the following question: "In what branch(es) of the Armed Forces did you serve?" Possible responses included: (1) Army, including Army National Guard or Reserve; (2) Air Force, including Air National Guard or Reserve; (3) Navy, including Reserve; (4) Marines, including Reserve; (5) Coast Guard, including Reserve; and (6) other (U.S. Department of Justice, 2004). For inmates citing participation in two or more branches, responses will be included in a dual branch category. The Coast Guard, dual branch and other categories are combined into one category titled "other" due to the small number of responses among this group.[6] These are entered into the models as a series of dummy variables. Army affiliation will be the reference category, as it is the most frequently served branch among incarcerated veterans. This variable is captured in statistical models examining veterans only.

[6] Due to the small number of responses within these groups, they were combined into one category (Dual branches: N = 2,233; n = 23. Coast Guard and "other" branch: N = 2,209; n = 22).

Control Variables

The control variables included in this analysis are: (a) *age,* (b) *gender,* (c) *race and ethnicity,* (d) *juvenile arrest history,* (e) *employment status,* (f) *education level,* (g) *substance abuse treatment,* and (h) *mental health diagnosis.* In accordance with previous research, a measure of age is included. Lunden (1952) concluded that offenders' ages superseded their military service experience in terms of participation in criminal activity. This aligns with the bulk of criminology literature that proposes the age-crime curve (Sampson & Laub, 1996). Participants were asked about their current age in years in the survey; responses ranged from 18 years old to 84 years old. *Age* appears as a continuous variable in the present study.

Gender is incorporated as a variable in this analysis. Previous research has generally excluded females, due in large part to the limited role that women played in the military and the limited availability of female participation within samples (Bouffard, 2003, 2005, 2010; Culp et al., 2013). The *gender* variable is coded as *(0) = female, (1) = male. Females* will serve as the reference category.

A variable measuring *race and ethnicity* is also contained in the present study. Bouffard (2005) found that military experience has different effects on certain social groups, so the present study will control for race and ethnicity. Within the survey, participants are asked separately to identify their race and ethnicity. The data set offers a variable in which answers from both questions are combined into a single measure that is used in the present study. The categories for *race and ethnicity* are: (1) *White, non-Hispanic*; (2) *Black, non-Hispanic;* (3) *Hispanic*; and (4)

other.[7] Racial groups included in the "*other"* category were individuals who reported that they were of a non-Hispanic ethnicity and either American Indian, Alaska Native, Asian, Pacific Islander, Native Hawaiian, or multiple races. These measures are coded as a series of dummy variables, and *White, non-Hispanic* will serve as the reference category.

The variable *juvenile arrest history* is also in the current study, because a juvenile criminal history measure has been included in earlier research (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004). This variable will account for pre-service behaviors. In the survey, inmates were asked, "How old were you the first time you were arrested for a crime?" (United States Department of Justice, 2004). Responses ranging from eight years old to 17 years old[8] are coded as "yes," while those arrested after 18 years old are coded as "no." The *juvenile arrest history* variable is coded as *(0) = no, (1) = yes.*[9] Those without a juvenile arrest history will appear as the reference category.

Measures of socioeconomic status (SES) are considered crime-related among the criminological and criminal justice research. SES variables such as employment status and educational level have also been included in the previous literature examining military service and criminal behavior (Bouffard, 2003, 2005, 2010; Culp et al., 2013). Therefore, they are

[7] Responses included in the "other, uncharacterized-missing" category were excluded from the data set (N = 2,006; n = 22).

[8] Juvenile jurisdiction varies across states. For some states, the cap is at 15 or 16 years of age, while others include the age of 17 (Griffin & King, 2006). For the purposes of this study, individuals who report their first arrest at age 17 years old or younger were considered to have a juvenile arrest history. It does not take into consideration whether or not the juvenile was charged as a juvenile or adult.

[9] Individuals who were excluded from answering this question due to a survey skip command were categorized as "no." Those who answered "0" to number of previous arrests were exempt from responding to the question of interest. For further explanation, see Appendix C.

included in the present study. *Employment* was developed as a variable from a survey question that asked inmates whether they had a job or business in the month before their arrest for their current offense. It is coded as *(0) = no, (1) = yes*. Next, inmates were asked upon admission, "What was the highest grade of school that you had attended?" (United States Department of Justice, 2004). Responses for *education level* varied from the first grade to two or more years of graduate school. This is a continuous measure.[10]

The literature has identified an indirect link between military service and criminality through substance abuse and mental health problems (Brown, 2008; Brown et al., 2013; Wright et al., 2005; Yager et al., 1984). Thus, the present study incorporates the control variables of *substance abuse treatment* and *mental health diagnosis*. *Substance abuse treatment* is measured by the question, "Have you ever attended an alcohol or drug treatment?" (United States Department of Justice, 2004). The *substance abuse treatment* variable is coded as a series of dummy variables: (a) *did attend*, (b) *did not attend*, and (c) *no reported substance abuse*.[11]

Mental health diagnosis was derived from the survey questions, "Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had [insert disorder]?" Possible disorders include: (a) a depressive disorder, (b) manic-depression, (c) bipolar disorder, or mania, (d) schizophrenia or another psychotic disorder, (e) post-traumatic

[10] Respondents who reported an education level that was not equitable to U.S. education standards (i.e., from a foreign school system) were excluded from the data set (N = 4,072; n = 45).

[11] The no reported substance abuse category was created for the substance abuse treatment variable to include those who were excluded from answering this question due to a survey skip command. Individuals who answered "no" to both of the precursor questions about any alcohol use or illicit drug use were exempt from responding to the question of interest. For further explanation, see Appendix C.

stress disorder, (f) another anxiety disorder, such as a panic disorder, (g) a personality disorder, and (h) any other mental or emotional condition (United States Department of Justice, 2004).

Responses were recoded into a scale as a hierarchical measure into five categories: (a) *serious mental illness* (e.g., schizophrenia or another psychotic disorder), (b) *depressive disorder* (e.g., a depressive disorder, manic-depression, bipolar disorder, or mania), (c) *PTSD*, (d) *anxiety cluster* (e.g., another anxiety disorder, such as a panic disorder, or a personality disorder), (e) *other* (e.g., any other mental or emotional condition), and (f) *no diagnosis.* [12] *No diagnosis* is the reference category.

Analytic Strategy

The analyses will use SPSS and STATA statistical software in two stages. The first stage will compare veteran inmates to non-veteran inmates, and the second stage will narrow the sample to only those inmates with military experience. The additional participation variables (combat exposure, age of entry, length of service, branch type, and discharge status) are included in the second stage models only. The study will feature only state inmates. The analytical strategy employed will consist of different regression techniques. The specific regression technique used will be a function of the types of dependent variables analyzed.

[12] The development of these general categories were based off of recommendations of the DSM-5 and the collaboration with subject matter experts. However, as a general guideline, severity and specificity of a mental illness can be identified only through an in-depth mental health diagnosis (American Psychiatric Association, 2013; M. Bermes, personal communication, May 19, 2015; R. Hinojosa, personal communication, January 22, 2015).

RQ 1: Is military service related to the number of arrests among incarcerated veterans?

The dependent variable *lifetime arrests* measured this research question, "Is military service related to the number of arrests among incarcerated veterans?" This variable is included in both of the aforementioned stages of analyses: the models containing both the full sample, and the veterans-only subsample. Because *lifetime arrests* is a count variable, a regression technique suitable for count measures is used. The data is bounded at zero and severely non-normally distributed; therefore, the regression method of ordinary least squares is not ideal. Poison regression was initially chosen, but a closer review of the data reveals that it is over-dispersed. Data is considered over-dispersed when the variance exceeds the mean. As a result, the negative binominal regression model is chosen, because it is a technique designed to work with count data, and it adjusts for over-dispersion, unlike the standard Poisson regression model (Long & Freese, 2006).

RQ 2: Is military service related to the current offense type among incarcerated veterans?

The dependent variable *offense type* is used to explore this research question: "Is military service related to the current offense type among incarcerated veterans?" *Offense type* is incorporated into both stages of the study to establish differences among inmates with military experience and inmates without armed forces participation. Typically, the method of binary logistic regression would be employed when examining a dichotomous dependent variable. However, *offense type* contains an unordered series of dichotomous measures, so the tool of multinomial regression is used instead. This method is chosen because it is frequently used and

allows simultaneous testing for a range of offense types in the same model. This technique creates an individual binary logit for each offense type, which will ensure a much clearer picture of the findings (Long & Freese, 2006). *Violent offense* is used as the reference category for this variable.

RQ 3: Is military service related to inmate institutional misconduct among incarcerated veterans?

Finally, two dependent variables, *number of disciplinary infractions and write-ups* and *infraction type*, address this third research question: "Is military service related to inmate institutional misconduct among incarcerated veterans?" Both dependent variables are included in the two stages of the analytical strategies. *Number of disciplinary infractions and write-ups* is a count measure. Again, Poisson regression was initially selected. However, the data is over-dispersed, and, as explained previously, the negative binominal regression model is an appropriate method to use with these types of data. On the other hand, *infraction type* is similar to the dependent variable *current offense type*. *Infraction type* is nominal and, for this reason, multinomial regression is used. *No misconduct* will serve as the reference category for this variable.

CHAPTER 4: RESULTS

The results of the analyses are presented in this chapter. Several analytic models were run to examine the study's three primary research questions. The overarching purpose of this research was to explore components of military service (age of entry, length of service, branch type, discharge type, and combat exposure) and their association with criminal justice outcomes (lifetime arrests, offense type, and institutional misconduct) using a nationally representative sample of persons incarcerated in state prisons.

Sample Demographics

The study sample, which included inmates from state correctional facilities, reflects the overall state prisoner population in the U.S. This section and the subsequent pages will discuss the full sample and military subsample results separately. Table 1 displays the characteristics of both the full sample and the military subsample, along with their respective weighted values.

Table 1

Descriptive statistics for the full sample and military subsample

Study Variables	Full sample			Military subsample		
	Mean (SD)	Percentage	Weighted N	Mean (SD)	Percentage	Weighted N
Age	35.38(10.50)		1,224,613	45.36(10.67)		127,509
Male		93.20%	1,143,093		99.00%	126,186
Race/Ethnicity						
White Non-Hispanic		35.20%	431,482		54.00%	68,634
Black Non-Hispanic		40.60%	496,936		32.20%	40,867
Hispanic		18.20%	222,694		6.20%	7,862
Other Races Non-Hispanic		6.00%	73,053		7.60%	9,719
Juvenile Arrest History (Yes)		45.60%	558,782		22.70%	28,471
Mental Health Diagnosis						
Schizophrenia		4.50%	54,300		6.10%	7,579
Depressive Disorder		16.90%	202,274		20.10%	25,173
PTSD		1.10%	13,396		3.70%	4,573
Anxiety Cluster		2.20%	25,928		2.30%	2,823
Other Mental Illness		.07%	8,785		1.00%	1,296
None		74.6%	893,999		66.90%	83,637
Substance Abuse Treatment (Yes)		56.60%	693,790		55.40%	70,095
No Substance Use		6.40%	77,877		6.80%	70,095
Employment (Yes)		70.20%	860,650		78.00%	99,012
Education	10.80(2.34)		1,211428	12.27(2.27)		126,812
Military Service (Yes)		10.40%	127,509	---	---	---
Service Variables						
Age of Entry	---	---	---	18.10(2.41)		126,896
Service Length	---	---	---	3.71(4.03)		124,415
Combat (Yes)	---	---	---		19.90%	25,269
Branch Type						
Army	---	---	---		54.00%	68,858
Navy	---	---	---		20.90%	26,696
Marines	---	---	---		13.70%	17,456
Air Force	---	---	---		7.90%	10,058
Other Branches	---	---	---		3.50%	4,441
Discharge Type						
Satisfactory	---	---	---		80.90%	101,132
Less Than Satisfactory	---	---	---		7.40%	9,274
Unsatisfactory	---	---	---		5.70%	7,166
Other Performance	---	---	---		5.90%	7,376

Note. Total number of possible unweighted observations = 14,449. Weighted totals may vary due to a small percentage of missing cases.

Within the full sample, the inmates were overwhelmingly male (93.20%), the mean age was 35.38 years old, and slightly less than half reported a juvenile arrest history (45.60%). Forty percent of state inmates described themselves as Black, 35.20 percent as White, 18.20 percent as Hispanic, and 6 percent as "other" races. Inmates' average education level was slightly over a 10^{th} grade education (10.80 years), and most were employed in the month prior to arrest (70.20%). Close to 75 percent of inmates revealed they had not received a mental health diagnosis; for those who did, depressive disorders (66.39%) and schizophrenia (17.82%) were most common, followed by an anxiety cluster (8.51%), PTSD (4.40%), and "other" mental or emotional issues (2.88%). More than half of the inmates who admitted to drug and alcohol use reported that they had received substance abuse treatment (56.60%), while 6.40 percent reported no drug or alcohol use. A little over 10 percent of the sample noted military service experience.

The military subsample, when compared to the full sample, was older (mean age 45.36 years), more educated (average 12.27 years), and less likely to have a juvenile arrest history (22.70%). The racial composition varied slightly across samples. The majority of inmates with military experience were White (54%), followed by Black (32.20%), "other" races (7.60%), and Hispanic (6.20%). Seventy-eight percent reported that they had a job or business in the month prior to arrest. As with the full sample, veteran inmates were mostly male (99%), over half who admitted to drug and alcohol use had sought substance abuse treatment (55.40%) and a small percentage reported no drug or alcohol use (6.80%). Mental health diagnoses were higher among the military subsample; however, the trends remained relatively the same across both samples, except for PTSD (11.03%), which had a higher rate among this group.

Armed forces branch membership varied across veteran inmates. The most commonly served branch was the Army (54%), followed by the Navy (20.90%), the Marine Corps (13.70%), the Air Force (7.90%), and "other" branches (3.50%). Less than a quarter (19.90%) reported combat experience. The average age of entry was 18.10 years old, while the mean service length was 3.71 years.[13] The majority of military inmates were discharged with a satisfactory performance (80.90%). Some received a less than satisfactory performance discharge (7.40%), and an even smaller portion received an "other" performance discharge (5.90%) or an unsatisfactory performance discharge (5.70%).

Table 2 displays the prevalence of different criminal justice outcomes across the full sample and the military subsample. The full sample and military subsample differ minimally. For the full sample, the mean number of lifetime arrests was 5.08, and the breakdown of current offense type was: 37.20 percent violent, 10.70 percent sex, 18.70 percent property, 21.30 percent drug, and 12 percent "other" offenses. A little less than half of inmates (44.40%) indicated participation in institutional misconduct. The most common offense was major violations (17.80%), then minor misconduct violations (14.10%), and physical assaults (12.60%). Of those who engaged in institutional misconduct, the average number of infractions was 3.21 per inmate.

The military subsample experienced a smaller number of lifetime arrests (4.53). The trends in offense types remained the same across both groups, except for sex offenses (22.40%), which doubled in the military subsample, and drug offenses which were less frequent (15%) in

[13] Mean entry year was 1976 (median 1977; mode 1979), and mean discharge year was 1980 (median 1980; mode 1983).

this group. About 40 percent of the inmates stated that they had been written up or found guilty of a disciplinary infraction. Again, major violations (18%) were the most common misconduct type (minor violations, 15.10%, and physical assaults, 8.60%). The average number of infractions committed among the military subsample was 2.13 per inmate.

Table 2

Criminal behavior patterns for the full sample and military subsample

	Full Sample			Military Subsample		
Dependent Variables	Mean (SD)	Percentage	Weighted N	Mean (SD)	Percentage	Weighted N
Lifetime Arrests	5.08(7.86)		1,160,449	4.53(8.33)		121,890
Offense Type						
Violent		37.20%	449,228		35.00%	43,473
Sex		10.70%	129,376		22.40%	27,875
Property		18.70%	226,518		15.70%	19,486
Drug		21.30%	257,907		15.00%	18,622
Other		12.00%	145,216		11.90%	14,839
Misconduct Type						
Physical Assault		12.60%	181,030		8.60%	10,823
Major Violations		17.80%	213,887		18.00%	22,629
Minor Violations		14.10%	169,431		15.10%	18,952
No Violations		55.60%	668,893		58.30%	73,332
Number of Infractions	3.21(11.96)		1,182,486	2.13(6.88)		124,045

Note. Total number of unweighted observations = 14,449. Weighted totals may vary due to a small percentage of missing cases.

Bivariate Analyses

The association between military participation and criminal justice outcomes (lifetime arrests, offenses type, number of disciplinary infractions, and misconduct type) was first tested at the bivariate level. The results presented and discussed in this section will include only the findings for the service variables.[14] For the categorical dependent variables, *offense type* and *misconduct type,* a chi-square test was conducted with the dichotomous independent variables,

[14] Additional bivariate results for the control variables are located in Appendix B.

whereas a Kruskal-Wallis test was performed with continuous independent variables, because the dependent variables contained three or more categories. The Kruskal-Wallis test, which is the non-parametric version of an analysis of variance (ANOVA) test, compares continuous variable scores across groups. This test was selected because the data is skewed and not normally distributed, which violates the assumptions for ANOVA (Pallant, 2007).

Table 3 shows the findings from the chi-square test. For the dependent variables, *offense type* and *misconduct type*, all service variables reached statistical significance. Next, Table 4 displays the results for the Kruskal-Wallis test, which determines significance through a chi-square and p-value. In terms of *offense type* and *misconduct type*, again, all military participation variables were statistically significant.

Table 3

Chi-square results for the military subsample and offense type and misconduct type[a]

	Offense Type		Misconduct Type	
Variable	Chi square value	p-value	Chi square value	p-value
Military Service (Yes)	21,275.842	.000	2024.454	.000
Combat (Yes)	347.499	.000	270.928	.000
Army	274.988	.000	209.748	.000
Navy	97.580	.000	342.609	.000
Marines	445.070	.000	418.974	.000
Air Force	1922.407	.000	168.959	.000
Other Branches	360.412	.000	170.494	.000
Satisfactory Performance	546.113	.000	1136.302	.000
Less Than Satisfactory Performance	399.337	.000	520.774	.000
Unsatisfactory Performance	395.970	.000	49.472	.000
Other Performance	250.681	.000	1102.338	.000

Note. [a] Reflects weighted cases.

Table 4

Kruskal-Wallis test results for the military subsample and offense type and misconduct type[a]

	Offense Type		Misconduct Type	
Variable	Chi square value	p-value	Chi square value	p-value
Age of Entry	985.420	.000	2,258.615	.000
Service Length	1,598.884	.000	1,729.737	.000

Note. [a] Reflects weighted cases.

On the other hand, for the interval level or continuous dependent variables of *lifetime arrests* and *number of disciplinary infractions*, a Mann-Whitney U test was performed with dichotomous independent variables and a correlation matrix was conducted with continuous independent variables. A Mann-Whitney U test is the non-parametric version of a t-test. Since the data is skewed, the selection of this test was appropriate, as a non-normal distribution violates the assumptions of a t-test. It compares medians instead of means and converts them in rankings for analysis (Pallant, 2007).

Table 5 shows the findings for both Mann-Whitney U tests with the dependent variables. Regarding *lifetime arrests*, all service variables other than Marines and "other" performance discharge showed statistical significance; Navy was marginally significant. For *number of infractions*, all military participation variables, except for "other" branches were statistically significant.

Table 5

Mann-Whitney U test results for the military subsample and lifetime arrests and the number of disciplinary infractions[a]

	Lifetime Arrests		Number of Infractions	
Variable	Z-value	p-value	Z-value	p-value
Military Service	-70.706	.000	-38.267	.000
Combat	-38.224	.00	-14.681	.000
Army	19.200	.000	-4.114	.000
Navy	2.630	.009	12.549	.000
Marines	1.924	.054	4.778	.000
Air Force	-30.562	.000	-16.932	.000
Other Branches	-16.407	.000	-.657	.511
Satisfactory Performance	-29.352	.000	-26.155	.000
Less Than Satisfactory Performance	19.763	.000	18.176	.000
Unsatisfactory Performance	26.370	.000	-2.563	.010
Other Performance	1.221	.222	25.802	.000

Note. [a] Reflects weighted cases.

Finally, Table 6 features the findings from the correlation matrix performed with the dependent variables *lifetime arrests* and *number of infractions*. All variables were found to be statistically significant.

Table 6

Correlation matrix for the military subsample and lifetime arrests and the number of disciplinary infractions[a]

Variable	Lifetime Arrests	Number of Infractions	Service Length	Age of Entry
Lifetime Arrests	1			
Number of Infractions	.009*	1		
Service Length	-.115*	-.076*	1	
Age of Entry	-.039*	-.040*	-.013*	1

Note. [a]Reflects weighted cases.
*$p \leq .001$.

Once bivariate analyses were complete, additional multicollinearity diagnostics were performed in SPSS. Using the methods of ordinary least squares, each proposed model was checked. None of the models displayed a variance inflation factor above 4 or tolerances greater than .25, the recommended thresholds for multicollinearity (Walker & Madden, 2013); therefore, it was safe to forward with the multivariate analyses.

Multivariate Analyses

Multivariate analyses were conducted across the four different dependent variables to tap into the study's three research questions. The models set out to examine the validity of the predictions made about service elements and their association with specific criminal and deviant behaviors. The findings are presented along with a brief discussion of the results.

RQ 1: Is military service related to the number of arrests among incarcerated veterans?

Lifetime arrests was the first dependent variable explored across both the full sample and the military subsample. Table 7 presents the findings.

Table 7

Negative binomial regression results for the full sample and military subsample on lifetime arrests among state inmates[15]

	Full sample[a]			Military subsample[b]		
Variable	*b*	*SE*	*t-ratio*	*b*	*SE*	*t-ratio*
Age	.117	.001***	11.50	.000	.001	0.03
Male	.003	.043	0.06	-.328	.274	-1.20
Black	-.086	.032**	-2.74	.104	.112	0.93
Hispanic	-.145	.040***	-3.60	.159	.178	0.89
Other Races	.027	.056	0.48	-.180	.155	-1.16
Juvenile Arrest History (Yes)	.912	.028***	32.78	.904	.093***	9.69
Schizophrenia	.232	.070***	3.33	.108	.205	0.53
Depressive Disorder	.109	.035**	3.15	.006	.123	0.05
PTSD	-.138	.128	-1.07	-.645	.224**	-2.88
Anxiety Cluster	.122	.097	1.25	.145	.296	0.49
Other Mental Illness	.105	.117	0.90	.124	.230	0.54
Substance Abuse Treatment (Yes)	.302	.003***	10.49	.595	.101***	5.88
No Substance Use	-.608	.006***	-9.38	-.695	.188***	-3.69
Employment (Yes)	-.153	.030***	-5.16	-.330	.134*	-2.46
Education	.008	.006	1.28	.017	.023	0.73
Military Service (Yes)	-.110	.056*	-1.96	---	---	---
Age of Entry	---	---	---	-.002	.023	-0.80
Service Length	---	---	---	-.050	.014***	-3.70
Combat (Yes)	---	---	---	.108	.129	0.83
Navy	---	---	---	-.083	.106	-0.79
Marines	---	---	---	.147	.166	0.74
Air Force	---	---	---	-.281	.020†	-1.70
Other Branches	---	---	---	-.155	.209	-0.74
Less Than Satisfactory	---	---	---	-.135	.142	-0.95
Unsatisfactory	---	---	---	.207	.016	1.27
Other Performance	---	---	---	.068	.211	0.32
Constant	.403	.010***	4.05	1.684	.643**	2.62

Note. [a] Weighted N = 1,123,641 (n = 13,330). [b] Weighted N = 115,012 (n = 1,191).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

[15] Model was re-run excluding inmates (N = 5,697; n = 57) who reported unrealistic military service entrance ages (i.e., under 17 years old) and the results were substantially the same. A slight variation existed with participation in the Air Force branch (b = -.256, p = .131) not being significant in the model.

Within the full sample, several significant findings emerged. As expected, race and age played a role in the number of lifetime arrests. Black (b = -.086, p = .006) and Hispanic (b = -.145, p = .000) inmates had fewer lifetime arrests compared to White inmates. On the other hand, older inmates (b = .117, p = .000) had more lifetime arrests. Similarly, inmates reporting a juvenile arrest history (b = .912, p = .000) or a diagnosis of a serious mental illness such as schizophrenia (b = .232, p = .001) or a depressive disorder (b = .109, p = .002) had elevated lifetime arrests.

On the contrary, those who reported to being employed one month prior to arrest (b = -.153, p = .000) had fewer arrests. Inmates who participated in substance abuse treatment (b = .302, p = .000) had more lifetime arrests, while individuals who reported no substance use (b = -.608, p = .000) had fewer lifetime arrests. Most importantly, military participation was found to significantly reduce the number of lifetime arrests among the full sample (b = -.110, p = .050). This supported the initial prediction that inmates with service experience would have a lower number of lifetime arrests.

The military subsample yielded similar significant results to the full sample. For this population, employment (b = -.330, p = .014), a PTSD diagnosis (b = -.645, p = .004), and no reported substance use (b = -.695, p = .000) lowered the number of lifetime arrests. In contrast, a juvenile arrest history (b = .904, p = .000) and those who received substance abuse treatment (b = .595, p = .000) had more lifetime arrests.

Though military participation was found to be significant within the full sample, when explored further in the military subsample, only a few elements were statistically significant.

Individuals who participated longer (b = -.050, p = .000) tended to have fewer lifetime arrests. This finding for the service length variable is in line with life-course theory and social learning theory in that the timing of events, the time spent connected to social bonds, and the amount of time immersed in military culture may have positive effects on criminal behavior. Similarly, older entrants also had fewer arrests. Both of these findings provided clarity on the relationship between length of service and age of entry with lifetime arrests.

Combat exposure was found to raise the number of lifetime arrests, but not significantly. This supported the original expectation that combat exposure would elevate the number of lifetime arrests, but also corresponded with previous literature reporting no significant difference in arrest likelihood between combat and non-combat veterans (Card, 1983; Yager et al., 1984). In contrast to the Army, participation in the other service branches, except the Marine Corps had fewer lifetime arrests. However, only membership in the Air Force (b = -.281, p = .090) was approaching significance. This aligned with the previously stated prediction that membership in the Army would elevate lifetime arrests. However, when compared to the Army, the Marine Corps challenged the original expectation.

Despite not reaching statistical significance, the findings showed that individuals who received an unsatisfactory or an "other" performance discharge had more lifetime arrests, and inmates with a less than satisfactory discharge had fewer lifetime arrests compared to military inmates who received a satisfactory performance discharge. Again, these results coincided with the prior prediction that those who received satisfactory performance discharges would have fewer lifetime arrests.

RQ 2: Is military service related to the current offense type among incarcerated veterans?

Multivariate analyses were conducted to determine whether specific military service components influence the perpetuation of certain crime types. *Violent crime* was used as the reference category for these analyses. Therefore, each offense type was individually compared to violent crimes. The results for each individual crime type are presented, and then a brief discussion of findings follows.

In Table 8, several significant findings surface from the sex offense model for the full sample when compared to violent offenses. First, older inmates (b = .035, p = .000) had an increased incarceration likelihood for sex offenses over violent crimes, and males (b = 1.846, p = .000) were also more likely to engage in sex offenses than females. Inmates with depressive disorders (b = .200, p = .023) or "other" mental illnesses (b = .579, p = .047) had an increased chance of committing a sex offense compared to a violent offense (when compared to inmates who did not have a mental health diagnosis). Employed individuals (b = .565, p = .000) were also more likely to engage in sex offenses than in violent offenses (in contrast to unemployed inmates).

On the other hand, Blacks (b = -1.080, p = .000), Hispanics (b = -.825, p = .000), and "other" races (b = -.032, p = .016) were less likely to commit sex offenses over violent offenses (when compared to Whites). Likewise, those who had a juvenile arrest history (b = -.526, p = .000) or received substance abuse treatment (b = -.258, p = .000) had a reduced chance of incarceration for a sex offense rather than for a violent crime (when compared to inmates without

a juvenile arrest history or inmates who did not seek substance treatment, respectively). Most importantly, military service (b = .216, p = .027) significantly increased incarceration likelihood for sex offenses rather than for violent offenses (when compared to inmates without military experience). This result aligned with prior research finding a higher prevalence of sex offenses among active duty service members, relative to the civilian population (Noonan & Mumola, 2007).

Within the military subsample, again, several inmate characteristics were found to be significant. As age (b = .026, p = .005) increased, so did the likelihood of participation in sex offenses when compared to violent crimes. Males (b = 3.231, p = .002) and inmates who were employed prior to arrest (b = .742, p = .001) were more likely to engage in sex offenses than in violent offenses (in contrast to females or unemployed inmates, respectively). Hispanics (b = -1.112, p = .005) and Blacks (b = -1.128, p = .000) were less likely to commit sex offenses than violent offenses (when compared to Whites). Likewise, inmates who received substance abuse treatment (b = -.454, p = .011) were less likely to be incarcerated for a sex offense than for a violent crime (when compared to individuals who did not receive treatment). Finally, diagnoses of schizophrenia (b = -.887, p = .062) or a depressive disorder (b = .380, p = .079) were suggestive of increasing and reducing incarceration likelihood for a sex offense, respectively (in contrast to individuals without a mental health diagnosis).

In terms of service features, some elements were statistically significant. For example, the longer one stays in the armed forces (b = .060, p = .006) significantly increased the likelihood of being incarcerated for a sex offense compared to a violent crime. This finding

supports the assumption of life-course theory that the timing of events impacts criminal behavior. In addition, the importance of socialization, as explained by social learning theory, is also shown by the service length result. Similarly, age of entry (b = .067, p = .081) was approaching statistical significance within the sex offense model. That is, the older age at which an individual enters the military the more likely they were to engage in a sex offense over a violent offense. Overall, these findings provided clarity for the effects of age of entry and length of service on offense type.

Those reporting combat exposure (b = -.514, p = .031) were less likely to commit a sex offense than a violent offense (as compared to military inmates without combat experience). This corresponded to the original expectation that inmates with combat experience would be incarcerated more likely for a violent offense. The influence of branch participation varied. Service in the Navy, Marine Corps, and "other" branches decreased the incarceration likelihood for a sex offense as opposed to a violent offense (in contrast to Army inmates). However, only Air Force membership (b = .550, p = .065) was approaching statistical significance. The results supported the previous expectation that inmates with Army experience would be more likely to engage in sex offenses, but challenged this prediction for Marine Corps service. It also revealed an unexpected finding for inmates with Air Force affiliation.

Those who received a less than satisfactory discharge or an "other" performance discharge were more likely to engage in a sex offense relative to a violent crime. Recipients of unsatisfactory discharges were less likely to engage in sex offenses than military inmates with satisfactory performance discharges. This supported the earlier prediction that inmates with

satisfactory performance discharges have an increased incarceration likelihood for a violent offense than other types of offenses when compared to other discharge statuses.

Table 8

Multinomial regression results for the full sample and military subsample on sex offenses and property offenses when compared to violent offenses among state inmates[16]

	Sex Offense				Property Offenses			
	Full sample[a]		Military subsample[b]		Full sample[a]		Military subsample[b]	
Variable	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Age	.035	.003***	.026	.009**	-.007	.003*	-.004	.010***
Male	1.846	.177***	3.231	1.024**	-.625	.067***	.485	.517
Black	-1.080	.080***	-1.128	.206***	-.688	.062***	-.274	.203
Hispanic	-.825	.103***	-1.112	.394**	-.553	.080***	-.049	.347
Other Races	-.032	.133*	-.104	.316	-.580	.119***	-.831	.439†
Juvenile Arrest History (Yes)	-.526	.072***	-.302	.219	-.014	.056	.119	.208
Schizophrenia	-.144	.165	-.887	.474†	-.136	.124	-.341	.391
Depressive Disorder	.200	.088*	.380	.216†	.002	.070	.321	.237
PTSD	-.338	.284	.112	.474	-.030	.238	-.010	.046
Anxiety Cluster	.263	.203	-.053	.515	-.129	.173	-.105	.629
Other Mental Illness	.579	.291*	.097	.890	-.521	.325	.824	.097
Substance Abuse Treatment (Yes)	-.258	.070***	-.454	.179*	.360	.056***	.043	.201*
No Substance Use	.104	.130	-.258	.352	-.138	.121	.075	.004
Employment (Yes)	.565	.084	.742	.231***	.007	.058	-.160	.217
Education	.002	.014	-.016	.401	.050	.012***	-.026	.043
Military Service (Yes)	.216	.098*	---	---	-.019	.101†	---	---
Age of Entry	---	---	.067	.038†	---	---	-.029	.048
Service Length	---	---	.060	.022**	---	---	.019	.028
Combat (Yes)	---	---	-.514	.238*	---	---	.361	.232
Navy	---	---	-.019	.221	---	---	.036	.235
Marines	---	---	-.240	.275	---	---	-.255	.286
Air Force	---	---	.550	.298†	---	---	.150	.004
Other Branches	---	---	-.545	.483	---	---	.184	.479
Less Than Satisfactory	---	---	.156	.342	---	---	-.546	.037
Unsatisfactory	---	---	-.010	.386	---	---	-.349	.437
Other	---	---	.328	.352	---	---	-.224	.043
Constant	-3.978	.286***	-6.046	1.451***	-.174	.193	1.146	1.387

Note. [a] Weighted N = 1,157,227 (n = 13,707). [b] Weighted N = 115,826 (n = 1,200).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

[16] Models were re-run excluding inmates (N = 5,868; n = 59) who reported unrealistic military service entrance ages (i.e., under 17 years old) and were substantially the same. A slight variation existed with age of entry (b = .057, p = .152) not being significant in the sex offense model and "other" races (b = -.661, p = .137) not being significant in the property offense model.

Table 8 also illustrates the significant findings for property crimes versus violent crimes within the full sample. These findings include the following: older inmates (b = -.007, p = .015) were less likely to be incarcerated for a property offense than for a violent offense, and males (b = -.625, p = .000) were less likely to engage in a property crime than females. In addition, Blacks (b = -.688, p = .000), Hispanics (b = -.553, p = .000), and "other" races (b = -.580, p = .000) were less likely to commit a property offense over a violent crime than Whites. However, higher-educated inmates (b = .050, p = .000) and those who received substance abuse treatment (b = .360, p = .000) have an increased likelihood of incarceration for a property crime rather than for a violent offense, compared to lower-educated inmates or those who did not seek substance abuse treatment, respectively. Finally, military service (b = -.019, p = .065) was marginally significant in the property offense model. This result aligned with the original expectation that military inmates are more likely to engage in violent offenses than non-military inmates.

Similarly, among the military subsample, significant demographic findings include age, substance abuse treatment, and race. Older inmates (b = -.004, p = .000) were less likely to commit a property offense than a violent crime. On the other hand, individuals who reported receiving substance abuse treatment (b = .043, p = .032) were more likely to be incarcerated for a property crime than for a violent offense (as compared to those military inmates who did not seek treatment). Lastly, "other" races (b = -.831, p = .058) was approaching statistical significance among the military subsample.

Military experience marginally decreased the likelihood of participation in a property crime in contrast to violent crime, yet none of the participation elements emerged as statistically

significant. However, these findings were suggestive of directional relationships. For example, as the age of entry increased, the likelihood of participation in a property crime decreased when compared to a violent crime. On the other hand, the longer the individual served in the military, the more likely that person was to be incarcerated for a property crime, in contrast to a violent crime.

The same pattern is also seen in combat exposure. The result did not support the initial prediction that inmates with combat experience would more likely be incarcerated for a violent offense. Marines were less likely to commit a property crime over a violent offense compared to Army Soldiers; in contrast, all other service branches had an increased likelihood of property offenses over Army Soldiers. These results coincided with the previous expectation that inmates with Army and Marine Corps affiliation would more likely engage in violent offenses. Finally, when compared to those who received satisfactory performance discharges, inmates of all other discharge categories were less likely to commit a property crime over a violent offense. This refuted the initial prediction that those with a satisfactory performance discharge are more likely to be incarcerated for a violent offense relative to other crime types.

Table 9 displays the findings for drug offenses and “other” offenses.

Table 9

Multinomial regression results for the full sample and military subsample on drug offenses and other offenses when compared to violent offenses among state inmates[17]

	Drug Offense				Other Offense			
	Full sample[a]		Military subsample[b]		Full sample[a]		Military subsample	
Variable	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Age	-.007	.003**	-.010	.010	.003	.003	.003	.010
Male	-.679	.064***	-.455	.440	-.114	.086	.080	.539
Black	.181	.061**	.062	.210	-.642	.074***	-1.192	.256***
Hispanic	.113	.077	-.021	.041	-.126	.087	-.473	.398
Other Races	-.234	.123†	-.467	.423	-.211	.130	-.320	.385
Juvenile Arrest History (Yes)	-.397	.054***	-.049	.239*	-.263	.066***	-.104	.253
Schizophrenia	-.733	.135***	-.053	.038	-.032	.154*	-.404	.434
Depressive Disorder	-.367	.072***	-.050	.256	-.242	.086**	-.053	.269
PTSD	-1.291	.300***	-1.569	.739*	-.110	.249	-.151	.498
Anxiety Cluster	-.553	.193**	-.628	.702	-.449	.223*	-1.281	.877
Other Mental Illness	-.428	.308	.680	.963	-1.067	.498*	-17.537	.671***
Substance Abuse Treatment (Yes)	.058	.055***	.613	.021**	.446	.007***	.507	.233*
No Substance Use	-.278	.118*	-.519	.491	-.169	.149	-.516	.546
Employment (Yes)	-.175	.054***	-.377	.219†	.192	.071**	-.020	.243
Education	.032	.011**	.056	.044	.004	.014**	.011	.045
Military Service (Yes)	-.276	.100**	---	---	-.199	.112†	---	---
Age of Entry	---	---	.040	.045	---	---	.090	.042*
Service Length	---	---	-.041	.032	---	---	.036	.031
Combat (Yes)	---	---	.137	.258	---	---	-.282	.282
Navy	---	---	-.330	.025	---	---	-.067	.279
Marines	---	---	-.177	.272	---	---	.178	.295
Air Force	---	---	-.002	.413	---	---	-.282	.445
Other Branches	---	---	-1.351	.748†	---	---	-.013	.512
Less Than Satisfactory	---	---	.271	.344	---	---	-.762	.524
Unsatisfactory	---	---	.523	.377	---	---	-.001	.447
Other Performance	---	---	.342	.039	---	---	.103	.457
Constant	-.010	.178	-1.063	1.237	-1.417	.226***	-2.805	1.270*

Note. [a] Weighted N = 1,157,227 (n = 13,707). [b] Weighted N = 115,826 (n = 1,200).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

[17] Models were re-run excluding inmates (N = 5,868; n = 59) who reported unrealistic military service entrance ages (i.e., under 17 years old) and were substantially the same. A slight variation existed with employment (b = -.351, p = .116) not being significant, but a PTSD diagnosis (b = -1.472, p = .050) was significant in the drug offense model. A less than satisfactory discharge status (b = -1.000, p = .071) was approaching significance, but age of entry (b = .060, p = .205) was not significant in the "other" offense model.

In Table 9, significant findings for the drug model for the full sample were: age (b = -.007, p = .007) decreased the incarceration likelihood for drug offenses when compared to violent offenses, and males (b = -.679, p = .000) were less likely to engage in a drug offense than females. In addition, higher-educated individuals (b = .032, p = .003) had an increased likelihood, while employed individuals (b = -.175, p = .001) had a reduced likelihood of committing a drug offense than a violent offense when compared to lower-educated and unemployed inmates, respectively. A mental health diagnosis of schizophrenia (b = -.733, p = .000), a depressive disorder (b = -.367, p = .000), PTSD (b = -1.291, p = .000), or an anxiety cluster (b = -.553, p = .004) significantly decreased the likelihood of being incarcerated for a drug crime over a violent offense (when compared to inmates without a mental health diagnosis). Likewise, a juvenile arrest history (b = -.397, p = .000) reduced the chances of engaging in a drug offense rather than a violent crime (in contrast to inmates without a juvenile arrest history). Inmates who received substance abuse treatment (b = .058, p = .000) were more likely to be incarcerated for a drug offense than for a violent crime (when compared to those who did not receive treatment), whereas individuals who reported no substance use (b = -.278, p = .019) were less likely in contrast to inmates who reported substance use. Blacks (b = .181, p = .003) were more likely to engage in a drug offense over a violent crime than Whites. "Other" races (b = -.234, p = .056) was approaching statistical significance in the drug offense model. Finally, those who reported military experience (b = -.276, p = .006) were less likely to commit a drug crime than a violent offense (when compared to non-military inmates). This substantiated the original prediction that service members are more likely to engage in violent offenses.

Some significant findings in the military subsample pertained to a PTSD diagnosis, a juvenile arrest history, substance abuse treatment, and employment. Military inmates diagnosed with PTSD (b = -1.569, p = .034) had a decreased incarceration likelihood for a drug offense over a violent crime (in contrast to inmates without a mental health diagnosis). A juvenile arrest history (b = -.049, p = .040) also reduced the chances of engaging in a drug crime as opposed to a violent offense (when compared to military inmates without a juvenile arrest history). On the other hand, individuals who received substance abuse treatment (b = .613, p = .003) were more likely to commit a drug crime than a violent crime (as compared to inmates who did not seek treatment). Finally, employment (b = -.377, p = .086) was approaching significance in the drug offense model.

While military experience as a whole reduced the incarceration likelihood for drug offenses over violent offenses, most participation components lacked significance. Again, the longer one served in the military, the less likely the person was to engage in a drug related offense over a violent one. As the age of entry increased, so did the incarceration likelihood for a drug crime rather than a violent offense.

Inmates with combat experience were more likely to commit a drug crime than a violent crime (in contrast to military inmates without combat experience). This refuted the expectation that inmates with combat experience are more likely to be incarcerated for a violent offense. In addition, when compared to Army service, participants in all of the other military branches were less likely to participate in a drug crime than in a violent crime; only the “other” branches category (b = -1.351, p = .071) was approaching significance. This mostly refuted support for the

original expectation that inmates with Army and Marine Corps experience are more likely to engage in violent offenses. Finally, all discharge statuses had an increased chance of engaging in a drug offense over a violent offense (in contrast to satisfactory performers). These findings supported the initial prediction that those with a satisfactory performance discharge are more likely to be incarcerated for violent offenses than for other offense types.

Table 9 also reports several significant findings that emerged from the full sample for the "other" offense model. First, Blacks (b = -.642, p = .006) were less likely to be incarcerated for "other" offenses than for violent crimes (as compared to Whites). On the other hand, higher-educated (b = .004, p = .000) and employed inmates (b = .192, p = .007) were more likely to engage in an "other" type of offense than in a violent offense (in contrast to lower-educated and unemployed inmates, respectively). Inmates who reported a mental health diagnosis of schizophrenia (b = -.032, p = .039), a depressive disorder (b = -.242, p = .005), an anxiety cluster (b = -.499, p = .044), or an "other" mental illness (b = -1.067, p = .032) had a decreased incarceration likelihood for an "other" offense than for a violent crime (when compared to inmates who did not have a mental health diagnosis). Similarly, those with a juvenile arrest record (b = -.263, p = .006) were less likely to commit an "other" offense compared to a violent crime (in contrast to inmates without a juvenile arrest history). Inmates who received substance abuse treatment (b = .446, p = .000) were more likely to commit an "other" offense than a violent offense (as opposed to inmates who did not seek substance abuse treatment). Most importantly, military participation (b = -.199, p = .077) was suggestive of reducing the likelihood of perpetrating an "other" offense in contrast to violent offending (when compared to non-military

inmates). This finding supported the previous expectation that service members are more likely to engage in violent offenses.

Within the military subsample a few significant findings surface. Black military inmates (b = -1.192, p = .000) were less likely to engage in "other" offenses than in violent crimes (when compared to Whites). Individuals who received a diagnosis for an "other" mental or emotional illness (b = -17.537, p = .000) had a decreased incarceration likelihood for "other" offenses rather than violent offenses (when compared to military inmates without a mental health diagnosis). On the contrary, those who received substance abuse treatment (b = .507, p = .029) had an increased likelihood of committing an "other" offense over a violent offense (when compared to military inmates who did not seek substance abuse treatment).

While service was approaching statistical significance among the full sample, within the military subsample only one participation element was significant when comparing "other" offenses to violent crimes. Older entrants (b = .090, p = .034) were significantly more likely to engage in "other" offenses than in violent crimes. Here, the assumption of life-course theory, the timing of events impacts criminal behavior, is demonstrated by the age of entry result. Those who served for longer periods of times also had an increased incarceration likelihood for "other" offenses than for violent offenses. These findings provided insight into the effect of age of entry and length of service on offense type.

Inmates with combat experience were less likely to commit "other" offenses than those without combat exposure (when compared to violent offenses). This was not in line with the

initial prediction that inmates with combat exposure are more likely incarcerated for an "other" offense. Marines were more likely to commit an "other" offense relative to a violent crime, whereas inmates of Navy, Air Force, and "other" branches membership were less likely to engage an "other" type of offense (when compared to the Army inmates). This, again, supported the previous prediction that inmates with Army and Marine Corps are more likely to engage in violent offenses, but only for Army service.

Finally, inmates with military experience who received a less than satisfactory or an unsatisfactory discharge had a decreased incarceration likelihood for "other" offenses over violent offenses, while "other" performance discharge recipients were more likely to participate in an "other" offense when compared to satisfactory performers. The results refuted the initial prediction that individuals who a received satisfactory performance discharge are more likely to be incarcerated for a violent offenses than other types of crimes.

In summary, when compared to violent offenses, military participation reduced the incarceration likelihood for drug crimes, while increasing the likelihood for sex offenses. These results were in line with previous findings that military members are more likely to commit violent offenses and sex offenses (Culp et al., 2013; Mumola, 2000; Noonan & Mumola, 2007). While the results for age of entry and service length were mixed, they provided clarity for their influence on offense type. Older entrants were less likely to engage in a violent crime when compared to all offenses categories (sex, drug, and "other"), except property offenses. In addition, for each year an inmate was in the military, that person's chances of committing a

violent offense increased in comparison to a drug crime, but decreased the odds of committing a sex, property or "other" offense.

Combat exposure increased incarceration likelihood for property and drug offenses over violent offenses, and decreased incarceration likelihood for sex offenses and "other" offenses when compared to violent offending, though this was statistically significant in only the sex offense model. This finding also challenged the earlier expectation that, while inmates with combat experience were more likely to commit "other" offenses compared to violent offenses, they engaged in violent offenses only half of the time compared to other types of crime.

Moreover, when compared to the other military branches, Army Soldiers had an increased incarceration likelihood for sex offenses, drug crimes, and "other" offenses, and all branches had a similar incarceration likelihood for violent offenses when compared to Army service members. This illustrates that violent offending is not restricted to select branches such as the Army and Marine Corps, as originally predicted. Finally, the influence of discharge status varied across offense type. However, individuals with satisfactory performance discharges were overall more likely to engage in some violent offending when compared to less than satisfactory or "other" performance discharge statuses, and less likely when compared to those who received a less than unsatisfactory discharge status. Satisfactory performers committed violent crimes only half of the time, which does not support the previous literature or the original prediction that satisfactory performers have a higher rate of violent crimes. These results provided clarity into the association between service components and offense type.

RQ 3: Is military service related to inmate institutional misconduct among incarcerated veterans?

Institutional misconduct among veteran populations has not previously been studied. For that reason, prison misconduct is examined in two different ways. This provides insight into the type and frequency at which misconduct is committed among this population. The findings are presented first with the results and discussion of disciplinary infraction frequency, followed by misconduct type.

Table 10 displays the results of exploring infraction frequency. The significant findings for the full sample are discussed first. As age (b = -.015, p = .000) rose, the number of infractions lessened. Similarly, inmates who reported higher education (b = -.032, p = .025) and employment (b = -.186, p = .008) had fewer infractions, in contrast to lower-educated inmates or unemployed individuals, respectively. Receiving a mental health diagnosis significantly elevated misconduct infractions across all types of diagnosis, most notably for those with schizophrenia (b = .617, p = .000), depressive disorders (b = .502, p = .006) and an anxiety cluster (b = .062, p = .000), followed by inmates with an "other" mental illness (b = .769, p = .008) and PTSD (b = .426, p = .009), as compared to inmates without a mental health diagnosis. Inmates with a juvenile arrest history (b = .699, p = .000) had more disciplinary infractions, while inmates who did not report substance use (b = -.037, p = .000) had fewer infractions (in contrast to inmates with no juvenile arrest history or those who reported substance use, respectively). Blacks (b = .280, p = .000) had more disciplinary infractions, while Hispanics (b = -.187, p = .052) had fewer compared to Whites; though, the finding for Hispanics was marginally significance. Finally,

individuals with service experience had more infractions; however, this finding was not statistically significant. This challenges the original prediction that military inmates would adjust better to prison due to their previous exposure to institutionalization.

Within the military subsample, significant results appear. For instance, older inmates (b = -.014, p = .025) had fewer infractions than younger inmates. On the other hand, employment prior to arrest (b = .370, p = .022) and some mental illnesses such as depressive disorders (b = .422 p = .017), PTSD (b = 1.046, p = .000) and "other" mental illnesses (b = 1.382, p = .010) significantly elevated infractions. Inmates who had a juvenile arrest history (b = .367, p = .014), had more infractions, as did inmates of "other" races (b = .502, p = .027), in contrast to those without a juvenile arrest history or Whites, respectively. Lastly, Black (b = .276, p = .078) was approaching statistical significance in the infraction frequency model.

Despite service showing no significance within full sample, when elements of participation were teased out in the subsample, some components did matter. Age of entrance (b = -.060, p = .027) and length of service (b = -.048, p = .003) significantly affected the number of disciplinary infractions. Those who entered the military later and those who stayed in the armed forces longer had fewer disciplinary infractions. These results are in line with the previous expectations that inmates who entered the armed forces at an older age or served longer would have fewer disciplinary infractions, which demonstrates the significance of the components of life-course theory and social learning theory that argue that the timing of events and socialization matter, respectively.

Combat exposure lowered infractions, but not significantly. This finding refutes the original belief that combat exposure would elevate prison misconduct, due to being readily exposed to violence and aggression. Branch participation also made a difference in the frequency of institutional misconduct. Compared to the Army, participation in the Marine Corps lessened infraction occurrence, while service in the other types of branches had more misconduct infractions. However, only membership in the Navy (b = .348, p = .035) and "other" branches (b = .996, p = .019) were statistically significant in generating an increase. This supports the previous prediction that Marine Corps and Army members would have fewer disciplinary infractions due to exposure to strict rules in an institutional environment.

When compared to satisfactory performance, the remaining discharge status categories had more infractions, while "other" performance discharges had fewer (when compared to inmates who received a satisfactory performance discharge). However, only other" performance discharges (b = .487, p = .077) was approaching statistical significance. These results lend support to the original expectation that inmates with satisfactory discharges would have fewer infractions, compared to other discharge statuses.

Table 10

Negative binomial regression results for the full sample and military subsample on the number of disciplinary infractions among state inmates[18]

	Full sample[a]			Military subsample[b]		
Variable	*b*	*SE*	*t-ratio*	*b*	*SE*	*t-ratio*
Age	-.015	.003***	-4.85	-.014	.006*	-2.25
Male	.029	.111	0.26	.286	.347	0.82
Black	.280	.007***	3.92	.276	.016†	1.76
Hispanic	-.187	.096†	-1.94	.062	.315	0.20
Other Races	.095	.107	0.88	.502	.227*	2.21
Juvenile Arrest History (Yes)	.699	.070***	10.03	.367	.149*	2.46
Schizophrenia	.617	.125***	4.94	.458	.288	1.59
Depressive Disorder	.502	.089***	5.65	.422	.177*	2.39
PTSD	.426	.164**	2.60	1.046	.290***	3.61
Anxiety Cluster	.062	.144***	4.33	.409	.034	1.21
Other Mental Illness	.769	.029**	2.67	1.382	.054**	2.58
Substance Abuse Treatment (Yes)	-.036	.069	-0.52	-.209	.136	-1.53
No Substance Use	-.037	.010***	-3.66	-.212	.241	-0.88
Employment (Yes)	-.186	.071***	-2.64	.370	.162*	2.29
Education	-.032	.014*	-2.24	-.017	.029	-0.58
Military Service (Yes)	.009	.010	0.09	---	---	---
Age of Entry	---	---	---	-.060	.027*	-2.99
Service Length	---	---	---	-.048	.016**	-2.22
Combat (Yes)	---	---	---	-.030	.192	-0.16
Navy	---	---	---	.348	.165*	2.11
Marines	---	---	---	-.041	.172	-0.24
Air Force	---	---	---	.065	.025	0.26
Other Branches	---	---	---	.996	.425*	2.34
Less Than Satisfactory	---	---	---	.506	.333	1.52
Unsatisfactory	---	---	---	.001	.297	0.49
Other Performance	---	---	---	.488	.276†	1.77
Constant	1.507	.221***	7.14	1.687	.867†	1.95

Note. [a] Weighted N = 1,144,533 (n = 13,553). [b] Weighted N = 117,024 (n = 1,210).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

Tables 11 and 12 present the findings from an examination of the types of institutional misconduct in which state inmates engage. No misconduct served as the reference category for

[18] Model was re-run excluding inmates (N = 6,075; n = 61) who reported unrealistic military service entrance ages (i.e., under 17 years old) and were substantially the same. A slight variation existed within the model where Black (b = .248, p = .126) and age of entry (b = -.036, p = .255) were not significant, but substance abuse treatment (b = -.288, p = .036) was significant, and a schizophrenia (b = .582, p = .055) diagnosis was approaching statistical significance.

these analyses. Therefore, each misconduct type is individually compared to no misconduct. The results for each misconduct type (physical assault, major violations, and minor violations) are presented, and a brief discussion of findings follows.

Table 11

Multinomial regression results for the full sample and military subsample on physical assaults and major violations when compared to no misconduct among state inmates[19]

	Physical Assault				Major Violations			
	Full sample[a]		Military subsample[b]		Full sample[a]		Military subsample[b]	
Variable	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Age	-.013	.033***	-.023	.011*	-.000	.002	.010	.008
Male	.585	.086***	.529	.750	.319	.070***	.661	.699
Black	.312	.071***	.344	.255	.003	.058	-.060	.189
Hispanic	.100	.089	.597	.407	-.331	.077***	-.322	.390
Other Races	-.002	.142	.063	.505	.031	.109	.697	.293*
Juvenile Arrest History (Yes)	.929	.006***	.171	.262	.557	.053***	.266	.193
Schizophrenia	.803	.126***	.552	.451	.431	.119***	.487	.317
Depressive Disorder	.489	.079***	.247	.287	.312	.067***	.166	.205
PTSD	.809	.269**	1.647	.466***	.578	.022**	.432	.462
Anxiety Cluster	.868	.176***	.875	.604	.537	.159***	-.041	.563
Other Mental Illness	.814	.297**	1.337	1.018	.204	.309	-.420	1.175
Substance Abuse Treatment (Yes)	-.035	.063	.064	.230	.138	.054*	.034	.175
No Substance Use	-.035	.130	-.213	.570	-.299	.124*	.409	.329
Employment (Yes)	-.266	.062***	.457	.028	.001	.057	.751	.223***
Education	-.065	.001***	-.082	.057	-.020	.011†	.024	.037
Military Service (Yes)	.035	.119	---	---	.045	.900	---	---
Age of Entry	---	---	-.085	.052	---	---	-.159	.049**
Service Length	---	---	-.047	.037	---	---	-.047	.025†
Combat (Yes)	---	---	-.052	.316	---	---	-.286	.220
Navy	---	---	.381	.290	---	---	.135	.207
Marines	---	---	.368	.306	---	---	-.254	.255
Air Force	---	---	-.121	.475	---	---	.016	.030
Other Branches	---	---	.990	.561†	---	---	-.102	.529
Less Than Satisfactory	---	---	.043	.411	---	---	.601	.313†
Unsatisfactory	---	---	-.154	.507	---	---	.109	.342
Other Performance	---	---	.929	.364*	---	---	.358	.003
Constant	-1.485	.215***	.238	1.556	-1.519	.183***	-.273	1.295

Note. [a] Weighted N = 1,163,501 (n = 13,776). [b] Weighted N = 118,361 (n = 1,224).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

[19]Models were re-run excluding inmates (N = 6,074; n = 61) who reported unrealistic military service entrance ages (i.e., under 17 years old) and were notably the same. Within the major violations model, a less than satisfactory discharge (b = .065, p = .042) was significant and a schizophrenia (b = .580, p = .069) diagnosis was approaching significance, but Black (b = -.137, p = .496) was not significant.

Several significant findings surface from the physical model for the full sample when compared to no misconduct in Table 11. First, older inmates (b = -.013, p = .010) had a decreased misconduct likelihood for physical assaults when compared to no misconduct. Higher-educated (b = -.065, p = .000) and employed inmates (b = -.266, p = .000) had a reduced likelihood of committing physical assaults relative to no misconduct (when compared to lower-educated and unemployed inmates, respectively). On the other hand, Blacks (b = .312, p = .000) were more likely to engage in physical assaults versus no misconduct (in contrast to Whites), and males (b = .585, p = .000) followed this pattern compared to females. Likewise, those who had a juvenile arrest history (b = .929 p = .000) had a greater likelihood of committing physical assaults than no misconduct (when compared to inmates without a juvenile arrest history). Receiving a mental health diagnosis significantly increased the likelihood of participating in physical assault rather than no misconduct across all types of diagnoses: schizophrenia (b = .803, p = .000), depressive disorders (b = .489, p = .000), PTSD (b = .809, p = .003), anxiety cluster (b = .868, p = .000) and an "other" mental illness (b = .814, p = .006) (as compared to inmates with no mental health diagnosis). Inmates with military experience were more likely to engage in physical assaults over no misconduct (when compared to inmates without military experience). However, this finding was not significantly significant. This result refuted the initial expectation that military inmates are less likely to engage in institutional misconduct.

Among the military subsample, a few significant factors emerged. As age (b = -.023, p = .031) increased, the likelihood of committing physical assault decreased when compared to no misconduct. On the other hand, inmates with PTSD (b = 1.647, p = .000) were more likely to

engage in physical assault relative to misconduct (when compared to inmates with no mental health diagnosis).

Even though, military experience was not significant throughout the full sample, a few service elements reached statistical significance when teased out. The older an individual entered the military and the longer one stayed in the armed forces decreased the likelihood of that person participating in a physical assault rather than engaging in no misconduct compared to younger recruits and short-timers. These results are in line with the previous expectations that inmates who entered service at an older age or stayed in longer are less likely to take part in institutional misconduct.

Similarly, individuals reporting combat exposure were more likely to not engage in institutional misconduct over physical assaults (in contrast to military inmates without combat experience). This challenges the initial prediction that inmates who reported combat experience are more likely to participate in institutional misconduct, because they were more readily exposed to violence and aggression through combat participation. Also, the influence of branch affiliation varied within the physical assault model. Air Force service inmates were less likely to engage in physical assaults, whereas those with Navy, Marine Corps or "other" branches affiliation had an increased likelihood of committing in a physical assault compared to Army inmates (in contrast to not participating in misconduct). However, only the "other" branches category ($b = .990$, $p = .078$) was approaching statistical significance. This lends some support to the original expectation that inmates with Army and Marine Corps affiliation are more likely to

engage in more types of misconduct, but only for Marine Corps service. However, the findings revealed an unexpected outcome for inmates with Navy and "other" branch affiliation.

Finally, inmates who received a less than satisfactory discharge or an "other" performance discharge were more likely to engage in physical assaults over not participating in prison misconduct, whereas recipients of unsatisfactory discharges were less likely to participate in physical assaults than military inmates with satisfactory performance discharges. Only "other" performance discharges (b = .929, p = .011) were statistically significant in this model such results contradict the initial expectation that individuals with satisfactory performance discharges are less likely to participate in institutional misconduct than unsatisfactory discharge recipients. Again, under a MTI framework, this could illustrate a continuation of service behavior into another institutional environment; that is, further the assumption that the military facilitates a culture of violence as suggested in previous research (Castle & Hensley, 2002; Lankford, 2009).

Table 11 also illustrates the significant findings for major violations versus no misconduct within the entire sample. Males (b = .391, p = .000) and inmates who had a juvenile arrest history (b = .557, p = .000) were more likely to engage in major violations relative to no misconduct (in contrast to females or inmates without a juvenile arrest history, respectively). In addition, Hispanics (b = -.331, p = .000) were less likely to commit a major violation than to engage in no misconduct (when compared to Whites). Inmates who stated a mental health diagnosis of schizophrenia (b = .431, p = .000), a depressive disorder (b = .312, p = .000), PTSD (b = .584, p = .009), or an anxiety cluster (b = .537, p = .001) were significantly more likely to engage in a major violation versus no misconduct (when compared to inmates without mental

health diagnoses). However, the findings for education (b = -.020, p = .076) and no substance use (b = -.029, p = .076) were approaching significance. Finally, inmates with military service was not significant within the major violations model. Again, this result challenges the initial prediction in which military inmates would adjust better to prison, because it is another institutionalized environment.

Similarly, among the military subsample, significant demographic findings include race and employment. “Other” races (b = .697, p = .017) were more likely to engage in major violations over no misconduct (when compared to Whites). In addition, employed individuals (b = .751, p = .001) had an increased likelihood of committing major violations versus no misconduct (when compared to unemployed inmates).

Though general military experience was not significant in the full sample, some service elements showed statistically significant differences. As the age of entry (b = -.159, p = .001) increased, the likelihood of participation in a major violation, compared to no misconduct, decreased. This demonstrated the life-course theory assumption that participation in criminal and deviant behaviors is time-related. Likewise, service length (b = -.047, p = .058) was approaching statistical significance in the major violations model. Both variables supported the initial prediction.

Those who reported combat exposure were less likely to commit a major violation in contrast to no misconduct. Again, this contradicted the original expectation that military inmates with combat experience are more likely to commit institutional misconduct than military inmates

with no combat experience. Inmates with Marine Corps and "other" branches affiliation were less likely to commit a major violation than no misconduct (when compared to Army soldiers). In contrast, Air Force and Navy inmates had an increased likelihood for engaging in major violations than Army Soldiers did. This result supported the original belief that inmates with Army or Marine Corps service are more prone to engage in only violent types of misconduct, compared to all other military branches; however, Navy participation was a surprising finding.

Finally, when compared to those who received satisfactory performance discharges, inmates of all other discharge categories were more likely to commit a major violation over no misconduct; only a less than satisfactory discharge (b = .601, p = .055) was approaching statistical significance. These findings did support the initial prediction that satisfactory performers are less likely to engage in misconduct.

In Table 12, significant findings for the minor violations model among the full sample are displayed. Older inmates (b = -.012, p = .000) had a decreased misconduct likelihood for minor violations when compared to no misconduct. Hispanics (b = -.208, p = .016) also followed this pattern, whereas Blacks (b = .175, p = .006) were more likely to engage in a minor violation over no misconduct, compared to Whites. Similarly, a juvenile arrest history (b = .380, p = .000) increased the chances of engaging in a minor violation over no misconduct (in contrast to inmates without a juvenile arrest history). Likewise, inmates diagnosed with a depressive disorder (b = .222, p = .003) or an "other" mental illness (b = .733, p = .009) were more likely to commit a minor violation versus no misconduct (when compared to inmates with no mental health diagnosis). Also, a PTSD diagnosis (b = .437, p = .073) was approaching statistical

significance. Most importantly, military service (b = .201, p = .038) significantly increased misconduct likelihood for minor violations over no misconduct (when compared to inmates without military experience). Once again, this challenges the original prediction that military inmates are less likely to participate in institutional misconduct.

Some significant findings in the military subsample were regarding a juvenile arrest history, and race. Inmates with a juvenile arrest history (b = .481, p = .020) were also more likely to commit minor violations relative to no misconduct (in contrast to inmates without a juvenile arrest history). "Other" races (b = .779, p = .017) were more likely to participate in minor violations versus no misconduct (when compared to Whites). The findings for Blacks (b = .344, p = .087) and employment (b = .038, p = .080) were approaching statistical significance as well. Finally, a diagnosis of an anxiety cluster (b = .844, p = .066) or an "other" mental or emotional illness (b = 1.230, p = .068) was suggestive of an increase in misconduct likelihood for minor violations over no misconduct.

While service as a whole increased misconduct likelihood for minor violations over no misconduct, all participation components lacked significance. However, the results do provide insight into the directional relationship between service components and institutional misconduct. First, the longer an individual served in the armed forces, the less likely that person was to engage in minor violations when compared to no misconduct. This pattern was also seen with age of entry. Both findings are in accordance with the initial prediction that length of service and age of entry are to have a negative association with institutional misconduct.

Those with combat experience had a decreased misconduct likelihood for minor violations versus no misconduct. The finding challenged the previous expectation that inmates with combat experience are more likely to participate in institutional misconduct. Next, inmates from the Marine Corps were less likely to commit a minor violation than to engage in no misconduct, whereas inmates from the Navy, Air Force, and "other" branches were more likely to engage in minor violations (when compared to the Army inmates). This aligns with the original expectation that inmates with Army or Marine Corps service are less likely to engage in institutional misconduct due to the strict discipline to which these branches are subjected, compared to other branches.

Finally, inmates with military experience who received an "other" performance discharge or an unsatisfactory discharge had a decreased misconduct likelihood for minor violations over no misconduct, while less than satisfactory performance discharge recipients were more likely to participate in minor violations when compared to satisfactory performers. The results refuted the original prediction that inmates with satisfactory performance discharges are less likely to participate in institutional misconduct than individuals who had unsatisfactory performance discharges.

Table 12

Multinomial regression results for the full sample and military subsample on minor violations when compared to no misconduct among state inmates[20]

	Minor Violations			
	Full sample[a]		Military subsample[b]	
Variable	*b*	*SE*	*b*	*SE*
Age	-.012	.003***	-.001	.009
Male	.112	.072	-.004	.457
Black	.175	.064**	.334	.195†
Hispanic	-.208	.086*	-.048	.405
Other Races	.102	.121	.779	.325*
Juvenile Arrest History (Yes)	.380	.058***	.481	.207*
Schizophrenia	.021	.137	-.015	.386
Depressive Disorder	.222	.075**	-.200	.247
PTSD	.437	.243†	.433	.500
Anxiety Cluster	.203	.196	.884	.481†
Other Mental Illness	.733	.028**	1.230	.673†
Substance Abuse Treatment (Yes)	.020	.058	-.081	.190
No Substance Use	-.165	.121	-.140	.389
Employment (Yes)	-.014	.061	.038	.219†
Education	.007	.012	.050	.042
Military Service (Yes)	.201	.097*	---	---
Age of Entry	---	---	-.017	.033
Service Length	---	---	-.037	.029
Combat (Yes)	---	---	-.083	.233
Navy	---	---	.315	.214
Marines	---	---	-.112	.029
Air Force	---	---	.141	.332
Other Branches	---	---	.038	.454
Less Than Satisfactory	---	---	.419	.337
Unsatisfactory	---	---	-.152	.393
Other Performance	---	---	-.307	.046
Constant	-1.406	.020***	-1.742	1.061

Note. [a] Weighted N = 1,163,501 (n = 13,776). [b] Weighted N = 118,361 (n = 1,224).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

Overall, military service was found to increase misconduct likelihood across all types when compared to no misconduct. However, this was statistically significant in only the minor violations model. This contradicts the initial prediction in which inmates with military

[20] Model was re-run excluding inmates (N = 6,074; n = 61) who reported unrealistic military service entrance ages (i.e., under 17 years old) and were notably the same. Within the minor violations model, an anxiety cluster diagnosis (b = .819, p = .107) and employment (b = .366, p = .104) were not significant.

experience would conform more easily to institutionalization (e.g., prison). Age of entry and service length were both related to lesser misconduct. This aligns with the original expectation that age of entry and length of service would have a negative relationship with institutional misconduct. An element of life-course theory, in which the participation in criminal or deviant behavior is time-related, was displayed by the finding for age of entry in the major violations model.

Inmates with combat exposure were previously expected to engage in more misconduct than those who did not have combat experience, but the results showed that combat lowered misconduct across all models. This could be suggestive of combat experience as a protective factor in deviant behavior. Initially, it was estimated that inmates who reported Army or Marine Corps membership would participate in less misconduct overall, but in more violent misconduct types, than military inmates of other service branches. The results did support these predictions, as well as reveal an unexpected finding, in which Navy inmates had an increased misconduct likelihood across all models.

Finally, these findings lend some support to the original prediction that satisfactory performers are less likely to participate in misconduct than unsatisfactory performers. While inmates with satisfactory performance discharges had a lower number of disciplinary infractions than all other discharge statuses, they were more likely to engage in physical assaults and minor violations versus no misconduct, compared to inmates with unsatisfactory discharges. Overall, inmates with satisfactory performance discharges participated in institutional misconduct only one-third of the time when compared to those with all other discharge statuses.

CHAPTER 5: DISCUSSION

This study sheds light on several implications of service experience. Expanding the concept of armed forces participation to include additional military elements yielded a clearer picture of the association between service and criminal and deviant behavior. As mentioned in chapter 2, the literature is divided on whether or not military participation facilitates or steers individuals away from crime. However, researchers have struggled with identifying the elements responsible for their respective position (Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Culp et al., 2013). The present study explored the impact of service participation across three sources of criminal and deviant behavior: (1) lifetime arrests, (2) offense type, and (3) institutional misconduct. A summary of the findings is initially provided, followed by a discussion of theoretical and policy implications, and then directions for future research.

Summary

The study yielded multiple key findings that contribute to the literature. Table 13 presents a summary of results across all models. A discussion is prepared by research question.

Table 13

Summary of findings for the military subsample across models

Variable	Dependent Variable (DV) Models								
	Lifetime arrests	Sex crime	Property crime	Drug crime	Other crime	# of infractions	Physical assault	Major violation	Minor violation
Military (Yes)	-	+		-					+
Age of Entry					+	-		-	
Service Length	-	+				-			
Combat (Yes)		-							
Navy						+			
Marines									
Air Force									
Other Branch						+			
Less Than Sat									
Unsatisfactory									
Other Perform							+		

Note. Only statistically significant ($p \leq .05$) findings are included from the models.

RQ 1: Is military service related to the number of arrests among incarcerated veterans?

The first research question tapped into whether service experience influenced the number of lifetime arrests, and what components were responsible for generating such an outcome. Military participation, as a dichotomous measure, was related to fewer lifetime arrests, which reinforces the previous research that has found a similar association between service participation and arrests (Bouffard, 2003, 2010; Bouffard & Laub, 2004). The results also supported the original expectation that inmates with military experience would have fewer lifetime arrests than those without military experience.

When service elements were teased out, the results showed that the amount of time an inmate spent in the armed forces significantly matters. Thus, inmates who participated in the military longer had fewer arrests than inmates who served less time. In keeping with life-course

theory, the time spent committed to the social bonds formed through the military benefited this group in terms of overall criminal history by the lowered number of lifetime arrests. Most importantly, the finding provides insight into the relationship between service length and lifetime arrests, which was previously unclear.

Additionally, the study revealed that inmates with Air Force branch affiliation had fewer arrests than those with Army experience, though the finding only marginally significant. The result suggests an effect, but since it did not reach a significance level of .05 firm conclusions cannot be drawn about branch affiliation. This also substantiated the original prediction, in terms of a directional relationship, where Army inmates would have more lifetime arrests than other branches. Ultimately, this study yields a clearer picture of the association between military service and lifetime arrests.

RQ 2: Is military service related to the current offense type among incarcerated veterans?

Because prior research has focused mostly on the association between military participation and violent offending, this study sought to explore the effects of service on other crime types. Therefore, the research examined whether armed forces experience influenced other types of offenses when compared to violent crimes. General military participation was statistically significant across two models—sex-based and drug. That is, inmates who served in the military were less likely to be incarcerated for drug offenses relative to violent crimes, but more likely for sex offenses. Military service was also marginally significant in the property and "other" offenses models. These results not only support the prediction that military inmates

would engage more commonly in violent or sex-based crimes, but also align with previous research that has found military inmates commit more violent and sex crimes than non-military ones (Culp et al., 2013; Noonan & Mumola, 2007). More importantly, these results support the literature that view military service as a crime facilitator, while providing some theoretical implications for Military Total Institution (MTI) due to veterans learning some behaviors (e.g., violence) that are not unlearned post-discharge, but carried over into the civilian world (Brown, 2008, 2011; Castle & Hensley, 2002; Lankford, 2009).

Further exploration into additional service components revealed that among inmates with military experience, the longer an individual participated in the armed forces, the more likely that person was to engage in sex offenses relative to violent crimes. In accordance with life-course theory, the timing of events matter, but so does the connection to social bonds. This corresponds with research that has shown that veterans tend to commit sex crimes more often than non-veteran inmates (Noonan & Mumola, 2007). The result provides clearer insight into association between service length and offense type, more specifically sexually-motivated crimes.

Moreover, inmates with combat experience were significantly less likely to commit a sex offense than a violent offense, relative to inmates without combat experience. This finding coincides with the initial expectation that combat experienced inmates would be more to likely engage in a violent crime than other crime types, compared to non-combat inmates, but partially supports the research that had shown an indirect link between violent offending and combat related factors (Wilson & Zigelbaum, 1983). However more information on the inmates' combat role is necessary to fully substantiate the prior literature.

Those who entered earlier were less likely to be incarcerated for sex and "other" offenses relative to violent crime; age of entry was statistically significant in the "other" offense model, and approaching significance in the sex offense model. Thus, older recruits were more likely to "other" offenses than their younger counterparts were. In agreement with life-course theory, the timing of entrance influenced offense type, but also suggests that older and younger recruits may cope with military strain differently. While age of entry in the sex offense model suggests an effect, it did not reach a significance level of .05 and therefore, firm conclusions cannot be drawn about this result. Nonetheless, this helped to clarify the relationship between service entrance age and offense type.

Finally, branch affiliation was marginally significantly for offense types. When compared to inmates with Army membership, those from the Air Force were more likely to engage in sex offenses than in violent offenses, whereas inmates from the "other" branch category were less likely to commit drug offenses. These findings challenge the original prediction that inmates with Army or Marines Corps membership were more likely to engage in violent and sexual offending. The results suggest an effect, but since it did not reach a significance level of .05 firm conclusions cannot be drawn about branch affiliation. Overall, military service elements impacted different crimes in different ways.

RQ 3: Is military service related to inmate institutional misconduct among incarcerated veterans?

Examining institutional misconduct involved a twofold approach. First, the frequency of disciplinary write-ups was explored, followed by a look at the different types of misconduct

military inmates perpetrated: physical assault, major violations, and minor violations. This study found that military experience, as a dichotomous measure, did not significantly impact infraction frequency or misconduct type other than minor violations. Thus, military inmates were more likely to commit minor violations (rule breaking infractions) versus no misconduct. These results contradict the original prediction that inmates would adapt more easily to prison than non-military inmates, and also challenge MTI, which explains that individuals are institutionalized through the duration of service and often not de-programmed after discharge, resulting in the incorporation of military experience in their social landscape. However, the average service length was 3.71 years which may suggest that this was not enough time to be fully indoctrinated into the military culture.

Though, when military experience was broken down into various service elements, statistical significance was reached for some components. For the number of disciplinary infractions, age of entry and service length significantly mattered. Those who entered earlier had more infractions, while military inmates who participated longer had fewer. These findings support the original prediction of a negative association between the variables age of entry and service length, and institutional misconduct. The timing of events and connection to social bonds were important for the participation in institutional misconduct.

On the other hand, military inmates with Navy or "other" branch affiliation had significantly more disciplinary infractions than Army service members did. The results coincide with the original prediction that inmates with Army affiliation would have fewer disciplinary infractions compared to other military branches. By way of social learning theory, it also

suggests that social environments and interaction vary across service branches. Finally, inmates who received an "other" performance discharge had more infractions than satisfactory performers, though this finding was only marginally significant. The result suggests an effect, but since it did not reach a significance level of .05 firm conclusions cannot be drawn about discharge status and the number of disciplinary infractions.

In terms of the types of prison misconduct military inmates perpetrate, service components were statistically significant only in the physical assault and major violations models. Across certain models, age of entry and discharge status mattered. Those who entered into the service at a younger age were more likely to commit a major violation over no misconduct. That is, older recruits less commonly engaged in major violations. The findings supports the initial expectation that age of entry would share a negative relationship with prison misconduct. This demonstrates that the timing of events does matter and suggest that younger and older entrants cope with military strain differently.

Inmates who had an "other" performance discharge (e.g., individuals that classified their discharge as "other") were significantly more likely to participate in physical assaults over no misconduct, compared to military inmates who received a satisfactory performance discharge. Similarly, those who received a less than satisfactory discharge status significantly increased misconduct likelihood for major violations versus no misconduct. Again, this coincides with the previous prediction that inmates with a satisfactory performance discharge were less likely to engage in misconduct when compared other discharge statuses. This provides more support for MTI, as these findings may suggest a continuation of service behavior for some, as these statuses

are suggestive of individuals who struggled to follow the rules while in the armed forces or were not exposed to the military long enough.

Also, inmates who reported longer durations of service were also less likely to participate in major violations relative to no misconduct; however, this result was only marginally significant. This, too, substantiated the original prediction that military experience would have a negative association with misconduct.

Finally, those with "other" branches affiliation were marginally more likely to engage in physical assaults rather over no misconduct, when compared to Army inmates. This refutes the initial expectation, in which inmates with Army or Marine Corps service would be more likely to commit violent types of misconduct. The result suggests an effect, but since it did not reach a significance level of .05 firm conclusions cannot be drawn about branch affiliation. Ultimately, from these findings, a better understanding of the association between military service and institutional misconduct has emerged.

Theoretical Implications

The results of this study have implications for theorizing about criminal and deviant behavior. The primary one is the application of traditional criminological theory to military culture competency; that is, the role of service experience in theorizing about crime. Prior research has suggested that criminological theories are applicable to addressing participation elements such as age of entry, service length, discharge status, branch affiliation, and combat participation. Life-course theory has remained the primary go-to theory across multiple

disciplines to investigate the effects of military experience on crime-related outcomes. However, through the present study, other theories of crime—social learning theory and strain theory—were also applicable to armed forces participation. The theoretical implications of the study are presented below, first by general military service, and then by service component.

Military Service

Life-course theory has regarded military service as a positive "turning point" in an individual's life. Thus, participation in the armed forces has the ability to steer people away from criminal and deviant behavior. The literature has demonstrated conflicting viewpoints on service in the criminology and criminal justice fields (Archer & Gartner, 1976; Bouffard, 2003, 2005, 2010; Bouffard & Laub, 2004; Card, 1983; Culp et al., 2013; Sun et al., 2004; Wright et al., 2005; Yager et al. 1984). The expectation was that military participation would serve as a protective factor from criminal and deviant behavior. Among those incarcerated, the results showed that inmates with military experience had significantly fewer lifetime arrests and were significantly less likely to engage in drug offenses and more likely to commit sex offenses relative to violent crimes. Thus, the social bonds formed from service participation may re-direct individuals away from criminal behavior.

The misconduct results challenged the initial prediction, and did not support the MTI assumption that inmates would carry their military experience over into social landscape. The discrepancy between the original expectation and the final results may suggest that institutionalization is not a uniform concept. That is, differences exist among the institutional

environments: prison, which is known to house antisocial and criminal people, and military service, which facilitates prosocial bonds. Similarly, strains from military participation versus from a prison environment could vary, so these inmates may not cope with prison strain in the same manner as they would with military strain.

Age of Entry

Life-course theory stresses the importance of the timing of events. Thus, the age at which one joined military service influences criminal trajectories. Similarly, in keeping with general strain theory, age of entry could influence the perception of strain by military participation. Maturity can play a role in how individuals perceive certain aspects of military participation such as relocation, isolation and discipline. The importance of service entry age on the life-course has been shown in the literature (Elder, 1986; Sampson & Laub, 1996). Among the criminology and criminal justice research, military participation was found to be beneficial for serious delinquents (Bouffard & Laub, 2004), while detrimental for older recruits (Wright et al., 2005). The initial prediction for age on entry on criminal behavior, lifetime arrests and offense type, was unclear, whereas it was expected that there would be a negative association between institutional misconduct and age of entry. The findings revealed that inmates who entered the service at an older age had fewer lifetime arrests and were more likely to commit "other" offenses relative to violent crime, while younger recruits were more likely to engage in violent offending. This provides clarity for the relationship between age of entry and service, and also suggests that younger recruits may process and react to the strains of the military differently than those who entered at an older age. That is, younger individuals may struggle with assimilating to life post-

discharge or perhaps that military participation may create a desistance from crime during the period of service only. Furthermore, the timing of the event—entrance into the military—did influence criminal behavior, specifically for certain types of offenses.

Age of entry also influenced institutional misconduct. Younger entrants were more likely to engage in prison misconduct compared to older recruits, to include both frequency and infraction types; findings were significant only for the number of infractions and the major violations. These results coincide with the previous prediction, as well as suggest that older recruits may cope more easily with institutionalization. However, the age-crime curve may also explain the findings, since individuals eventually age out of crime and deviance. In sum, the timing of service entry shaped the crime trajectory for these inmates.

Length of Service

In accordance with the life-course, social learning and strain theories, socialization and the perception of strain matter, respectively. Thus, the longer social bonds are in place, the amount of time an individual spent immersed within the military culture, and the period one spent exposed to strain producing components of the armed forces, the more influential the service experience is for a person (MacLean & Elder, 2007). Similarly, MTI explains that certain behaviors are ingrained within military members during participation, and since they are not de-programmed post-discharge, the conduct transfers over into the civilian world (Brown, 2008, 2011; Brown et al., 2013). Therefore, the more time spent in the military, the greater its behavioral effects are on the participant.

The original expectation for the relationship between service length on lifetime arrests, and offense type was unclear. The results showed that length of service did influence some criminal behaviors. Inmates who served longer had fewer arrests and were less likely to engage in violent offenses, though these findings were significant only for lifetime arrests and sex offenses. Military inmates committed more sex-based offenses than inmates who were in the armed forces for a shorter period of time. This shows a clearer picture of the effect of service length on criminal behavior, while also suggesting that the time spent in the military influenced some crimes. Since the average service length was 3.71 years and the mean years of entry were 1976 and 1983, respectively, individuals may have been exposed to varying forms of behavioral reinforcement and imitation, due to the context of the service era in which they participated (e.g., entering the military in a post-Vietnam era or during a military downsizing initiative) that affected them post-discharge. Those who served long-term may have experienced a wider range of military activities. For individuals who participated for shorter periods of time, the intense social conditions of the military environment and the subsequent detachment from military social bonds may have affected this group negatively over the life-course. Also, the strain of military experience may have influenced individuals differently for those who served for a short time versus a long time.

Furthermore, length of service was predicted to have a negative association with institutional misconduct, and the results of this study did substantiate this prediction. Inmates who reported serving for longer periods were less likely to participate in misconduct, specifically for infraction frequency and major violations. This proposes that individuals who spend a shorter

time in the armed forces may not be easily able to cope with institutional strain. This finding also furthers the MTI assumption that military members are not reprogrammed for the civilian world. Thus, the longer one serves, the longer one is entrenched in the military culture.

Combat Exposure

The life-course, social learning and strain theories all state that criminal behavior is influenced by exposure to social conditions, behavioral reinforcement, and the degree of strain suffered, respectively. As mentioned above, combat participation is not a universal experience for all service members. The research remains divided on whether combat exposure serves as a positive or negative influence in the lives of the men and women that have participated in conflict areas. While Card (1983) found no significant difference in frequency of arrest for combat veterans versus non-combat veterans, Yager et al. (1984) and Wilson & Zigelbaum (1983) concluded that different levels of combat experiences influence arrest frequency and offense types, respectively.

The study originally proposed that inmates who reported combat exposure would have more lifetime arrests and be more likely to engage in sexual offending and institutional misconduct. However, the findings showed otherwise. Specifically, inmates with combat service were significantly less likely to engage in sex offenses relative to violent crimes.

Combat exposure appeared to serve as a protective factor rather than to facilitate deviant and criminal behavior for the study participants. Behaviors learned during combat such as intense decision-making, responding under pressure, and situational awareness could be

beneficial for some. Similarly, the strain experienced through combat action may help individuals to improve their coping skills when presented with negative feelings resulting from other strains, thereby steering them away from criminal and deviant conduct. Finally, the social conditions of combat may strengthen the social bonds formed from service.

Branch Type

Next, social learning theory explains that people learn new behaviors when they associate with individuals close to them, and the anticipated reinforcement of this conduct drives behavior imitation. The military relies on behavioral reinforcement. Strain theory also explains that negative feelings produced by experienced strains lead to criminal behavior. For some, the military can be a source of strain, as service members suffer a loss of civilian freedom, as well as relocation and isolation. Military branches serve as uniquely distinct subcultures; thus, no two branches are alike, as they have differences in vocabularies, traditions and overall missions. The variation in training, organizational structure and behavioral reinforcement can affect individuals differently from branch to branch.

Though previous research has recommended the inclusion of branch affiliation (Bouffard, 2003, 2010), the literature has focused primarily on Marine Corps and Army populations (Brown, 2011; Tanielian & Jaycox, 2008). It was initially proposed that inmates with Army or Marine Corps service would have more lifetime arrests, and be incarcerated more commonly for violent and sexual crime. They were also expected to engage in fewer misconduct infractions, but in more violent types of misconduct.

The final results showed that variation existed across branches regarding criminal and deviant behavior, specifically for institutional misconduct. Surprisingly, individuals who reported Navy membership were more likely to engage in misconduct, compared to Army inmates, across all models. Inmates from the "other" branches category also had more misconduct infractions than Army inmates.

The discrepancies in the findings may reflect service socialization. Also, both reinforced behaviors and social conditions vary across branches, which in turn influences the perception of military strain. Prior research has referred to the Army and Marine Corps as the combat branches (MacLean & Elder, 2007), because they have higher rates of ground troops (Rohlfs, 2010) and are more likely to operate in combat areas (Walls, 2011). Army and Marine Corps service members were also found to have higher rates of PTSD and major depression than other branches (Tanielian and Jaycox, 2008). The previous research coupled with the current results may provide some context for the findings, in terms of Army and Marine Corps inmates, but little is known about the other branches.

Discharge Status

Military service has the ability to produce strain. General strain theory emphasizes that not the strain itself, but how one copes with it, that leads to criminal behavior (Agnew, 1992). The negative feelings the strain produces are the drivers of deviance. Military discharge status can illustrate how an individual responded to the strain produced by service experience. Comparatively, MTI explains that, during participation, individuals swap their civilian norms

and values for military ones, and that they bring this behavior into the civilian world post-discharge, due to the lack of service de-programming. In other words, the reintegration process is absent, hence military experience permeates the social landscape.

It was initially expected that military inmates who received a satisfactory performance discharge would engage in fewer criminal and deviant behaviors, but in more violent crime than other discharge types, particularly unsatisfactory performance discharges. The results revealed discharge status was significant in the institutional misconduct models. The findings for institutional misconduct match the earlier predictions and could support the MTI theory that individuals bring military behavior into civilian environments, considering that the most military inmates received a satisfactory performance discharge. The service members who did not engage in misconduct in the military setting also did in prison. The ability to conform to strict discipline and to follow the rules appeared, while in the military, to benefit imprisoned inmates. Ultimately, this research has demonstrated the versatility of criminological theories in the examination of the association between military service and criminal and deviant behaviors among those who were in prison.

Policy Implications

As of 2004, 10.4 percent of inmates in state prisons reported military service, while military veterans made up roughly 13 percent of the entire U.S. population (U.S. Census Bureau, 2000, 2010). Although, it appears that military veterans are slightly underrepresented as

prisoners, they still make up a sizeable amount of the prison population. For that reason, three major policy implications are suggested from this research.

Expand Post-Service Reintegration Programming

A common lament among military service veterans is their difficulty transitioning back into society after discharge (Brown, 2008, 2011; Brown et al., 2013). Traditionally, researchers and practitioners have strongly focused on combat veterans on post-discharge outcomes (Card, 1983; Culp et al., 2013; Yager et al, 1984). In recent years, the U.S. Department of Defense (DOD) has implemented reintegration programs for combat veterans. However, as explained above, combat exposure is not a uniform experience for all veterans.

Prior research had found that combat experience is associated with a variety of negative outcomes such as substance abuse, mental health issues, and crime. However, within this study, combat exposure limited the number of lifetime arrests, perpetrations of institutional misconduct, and the commission of violent offenses (in half of the offense type models) among military inmates. Moreover, combat experience significantly decreased the incarceration likelihood for sex offenses when compared to violent crimes, so military inmates were likely to engage in sex offenses when compared to violent crimes. These findings argue for the DOD to extend current reintegration programs and services beyond their limitation to combat veterans.

There is a need to successfully reintegrate military men and women back into civilian society once they complete their service obligations. As previous literature has stated and the current study has shown, there is variation within the armed forces experience. This study has

identified potential target areas among a sample of inmates with military service and offers suggestions for policy development.

Sampson and Laub (1996, 2003) view military service as a positive turning point in one's life. However, the present study found that for the inmates who entered the armed forces at a later age, it was not a beneficial turning point, as they engaged in crime post-discharge. Older entrants more commonly committed sex-based, drug or "other" offenses, which may suggest a difficulty in re-entering civilian society after discharge. Those who enter the military at an older age could have unique reintegration needs, as service could be viewed a life disruption when joined later. Similarly, younger recruits were more likely to engage in violent crime, compared to other offense types. Therefore, an ideal reintegration program should start the transition process for older recruits prior to discharge, as well as follow up with an aftercare plan. Additionally, for those who enter at a younger age, re-entry efforts should focus on the de-programming of violent behavior.

In accordance with MTI, service members carry their military experience into the social landscape, which may suggest that inmates who participated for a longer period may suffer difficulties going from an institution (the military) into the civilian world. However, within the present study, those who served long-term were less likely to engage in criminal and deviant behaviors, and short-timers more commonly engaged in them. This finding shows the need for a reintegration program that incorporates all service lengths. Short-timers may not have learned how to properly cope with strain caused by military and, as a result, have difficulty transitioning

back into society. Thus, an intensive re-entry strategy should be employed up front for the people who served for less time.

In addition, reintegration programs should be tailored to branch-specific culture, because military branches are distinct from one another and the post-release needs could vary across branches. The findings showed that inmates with Navy or "other" branches membership were more likely to engage in prison misconduct. Military culture varies across branches and must be considered when developing a reintegration plan.

As Brown (2008, 2011) suggested, by way of MTI, individuals are not de-programmed after service completion, thus military behavior is transferred into the civilian world, which this study has shown specifically by the relationship between institutional misconduct and discharge status. Additional considerations for programming also include incorporating skill development and employment opportunities. A successful re-entry may steer individuals away from crime. Therefore, the DOD should heed these results when restructuring future reintegration programs.

Continue an Aggressive Stance on Sexually-Based Offenses

A notable finding was that military experience increased the incarceration likelihood for sex offenses over violent crimes. When compared to the entire sample, the military subsample had a higher frequency of sex offenses, almost double the amount. These results align with the previous research in which active duty service members experienced an increase in incarceration for sex offenses (Mumola, 2000; Noonan & Mumola, 2007).

When teasing out specific participation components, the military inmates who served longer were significantly more likely to engage in sex offenses relative to violent crime, than those who were in the military for a short period. This could indicate that the military facilitates a culture in which sexual violence is accepted and tolerated. The DOD is now tackling this issue by trying to change the culture of the military through the establishment of sexual assault prevention programs and a change of focus from victims to offenders. However, it takes roughly 20 to 30 years for an institution to undergo a complete cultural change, so in the meantime it would be wise for the DOD to extend these efforts post-military. Specifically, the DOD should continue to conduct research into sexual deviance trends among service members both pre- and post-release, especially for modern-day veterans, and also extend prevention efforts to discharged veterans. Finally, the U.S. Veterans Administration needs to continue to develop programs that target sexual deviance.

Improve Criminal Justice Policy

The third policy implication is to improve criminal justice policy through a two-pronged approach. Suggestions are made for enhancing Veterans Treatment Courts (VTC) and correctional policy. In essence, criminal justice system agents must increase their military culture competency.

Veteran Treatment Courts. Within the past decade, the courts noticed an increase of military veterans entering common courtrooms and established the VTC model as a way to divert them out of the system and connect veterans with appropriate services. As of mid-2014, there

were 220 VTCs in operation nationwide, with many more planned (The History, n.d.). However, there are some road blocks in making this initiative a success such as funding and resources.

VTCs loosely resemble drug courts, but have no government mandate or model; thus, they lack operational consistency. Courts vary from jurisdiction to jurisdiction on who and what they will accept in the court. Some courts will not allow in certain crimes such as violent crimes or sex offenses, or they will accept only defendants with particular service characteristics such as combat action. These decisions are sometimes reflective of what the funding source governs as appropriate.

Limited veteran oriented resources are available, especially for individuals who did not receive an honorable discharge, and funding sources are scarce, due to both budget constraints and rigid restrictions against accepting violent crimes into these courts. The present study has shown that veterans engage in a variety of criminal and deviant behavior. Thus, the criminal justice system should look for resources to address these issues, while educating both the service organization and funding agencies on the unique characteristics of veterans who become entangled with the system. Additionally, this specialty court should tap into local resources that best address the association between criminal behavior and service elements, in order to better address the needs of veterans and to further encourage the funding sources to not have crime restrictions.

Correctional Policy. Inmates with military experience comprise slightly more than 10 percent of the U.S. state prison population. Correctional staff must be cognizant of the

characteristics and needs of this special population. This study offers insight into not only into military inmates' criminal behavior, arrest and offense type, but also their institutional behavior. The present study has implications for correctional programming. A better understanding of the criminal behavior of military inmates will help to identify the criminogenic risks and needs for individuals within this group. Therefore, facilities can tailor correctional programs to address the needs and risks related to military participation. Some potential needs identified through this research were: violence, sexual deviance, and reintegration struggles.

Regarding custody and security, the current research also identified specific military components that affect the likelihood for misconduct, such as branch affiliation, service length, discharge status and age of entry. Correctional institutions have the ability to prescreen for these elements while taking them under advisement for facility security. Most importantly, prison officials can also offer some context for these findings by continuing to research this population.

Study Limitations and Future Research

While theoretical and policy implications can be drawn from this study, future directions are suggested as well. The study featured a sample of U.S. prisoners from 2004, who include inmate veterans from a service era that was on the cusp of the Vietnam War's end and before the Grenada conflict; in other words, a mid-1970s to early-1980s military population. To better generalize to current veterans, future research would benefit from using a more modern-day sample of inmate veterans, including some from the Gulf War, the War in Afghanistan and the

Iraq War, is recommended. However, there is value to mining older veteran populations to investigate whether the significance of service elements have transitioned over time.

The second recommendation is to improve upon the data set. While, the data used in this study was very strong, its focus was not service participation. Military experience was only examined as a demographic factor and not the research objective. Therefore, a data set with an abundance of participation measures would be ideal. Some examples include: armed forces discipline record, occupational specialty, military status (e.g., reservist versus active-duty), level of combat exposure and the locations where individuals were stationed (to include war zones) would be ideal. Further background factors (e.g., an in-depth family history, mental health history, and school record) should also be considered along with additional criminal justice measures (e.g., a comprehensive criminal history). A limitation in the present study is that there was no way to determine the number of arrests post-service. Future studies need to examine the length of time from discharge to arrest.

Another recommendation is to utilize a data set that incorporates both veterans who become entangled within the criminal justice system and those who do not. The data used in this study is powerful for an analysis of incarcerated veterans, because it is representative of all U.S. state prisoners in 2004. However, research on the veteran population will benefit from a survey that is generalizable across all service member populations to include those who are in jail or on probation, as well as individuals who have not interacted with the criminal justice system. This will allow researchers to examine if military components hold the same significance across different veteran groups. Participation elements may influence criminal veterans differently than

non-criminal veterans. Thus, it will help to identify if the same service mechanisms that mattered within in this study are also important for steering other types of veterans away from a criminal trajectory. Ultimately, a data set that would help to increase generalizability of veterans is essential

Finally, while this research has notably added to the current body of literature, future studies could be enhanced through the use of qualitative measures. The service member perspective on the association between military participation and subsequent crime is relatively unknown. A qualitative study would provide insight into the exact strains veterans feel and how military participation has impacted criminal behavior. Lunden's (1952) study of World War I and II veterans featured a qualitative portion, in which he interviewed both prison wardens and military inmates on the relationship between service and criminality using qualitative measures. It would be worthwhile to build upon his research and compare service members of different cohorts to see if the perception of the military experience on criminal life remains constant over time among military inmates. The criminology and criminal justice fields would greatly benefit from such knowledge.

Overall, military service is a turning point in the lives of the men and women who serve. Participation is not a universal experience, which creates variation among members. This study built upon the empirical voids in previous research by including additional service variables, along with the exploration into institutional misconduct among an incarcerated veteran population. The results of this study showed that military service is not uniform and should not be studied as such.

APPENDIX A: SUPPLEMENTAL ANALYSES

Table 14

Negative binomial regression results for the military subsample with an age of entry over 17 years on lifetime arrests among state inmates[a]

	Military Subsample		
Variable	*b*	*SE*	*t-ratio*
Age	.000	.005	0.06
Male	-.346	.276	-1.25
Black	.151	.114	1.33
Hispanic	.124	.184	0.68
Other Races	-.009	.160	-0.57
Juvenile Arrest History (Yes)	.891	.098***	9.12
Schizophrenia	.006	.212	0.29
Depressive Disorder	-.001	.123	0.01
PTSD	-.588	.231*	-2.54
Anxiety Cluster	.151	.315	0.48
Other Mental Illness	.120	.231	0.52
Substance Abuse Treatment (Yes)	.628	.105***	5.99
No Substance Use	-.068	.019***	-3.50
Employment (Yes)	-.371	.014**	-2.68
Education	.026	.024	1.80
Military Service (Yes)	---	---	---
Age of Entry	-.000	.025	-1.04
Service Length	-.056	.014***	-4.00
Combat (Yes)	.099	.136	0.73
Navy	-.084	.109	-0.76
Marines	.185	.201	0.92
Air Force	-.256	.170	-1.51
Other Branches	-.112	.207	-0.54
Less Than Satisfactory	-.150	.147	-1.02
Unsatisfactory	.234	.166	1.41
Other Performance	.094	.212	0.44
Constant	1.730	.643*	2.53

Note. [a] Weighted N = 109,315 (n = 1,134).
*p ≤ .05; **p ≤ .01; ***p ≤ .001.

Table 15

Negative binomial regression results for the military subsample with an age of entry over 17 years on the number of disciplinary infractions among state inmates[a]

	Military Subsample		
Variable	*b*	*SE*	*t-ratio*
Age	-.016	.006*	-2.47
Male	.537	.347	1.55
Black	.248	.016	1.53
Hispanic	-.270	.272	-0.99
Other Races	.380	.218†	1.75
Juvenile Arrest History (Yes)	.346	.016*	2.21
Schizophrenia	.582	.302†	1.92
Depressive Disorder	.520	.018**	2.95
PTSD	1.219	.307***	3.97
Anxiety Cluster	.499	.332	1.50
Other Mental Illness	1.368	.521**	2.62
Substance Abuse Treatment (Yes)	-.288	.137*	-2.10
No Substance Use	-.261	.003	-0.88
Employment (Yes)	.336	.168	2.00
Education	-.000	.030	-0.06
Military Service (Yes)	---	---	---
Age of Entry	-.036	.031	-2.99
Service Length	-.048	.017**	-2.22
Combat (Yes)	.029	.203	-0.16
Navy	.346	.168**	2.11
Marines	-.011	.180	-0.24
Air Force	.066	.270	0.26
Other Branches	1.040	.414**	2.34
Less Than Satisfactory	.581	.327†	1.52
Unsatisfactory	.296	.311	0.49
Other Performance	.485	.292†	1.77
Constant	.898	.898	1.00

Note. [a] Weighted N = 110,949 (n = 1,149).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

Table 16

Multinomial regression results for the military subsample with an age of entry over 17 years on current offense type when compared to violent offenses among state inmates[a]

	Military Subsample Sex Offense		Military Subsample Property Offense		Military Subsample Drug Offense		Military Subsample Other Offense	
Variable	*b*	*SE*	*b*	*SE*	*b*	*SE*	*b*	*SE*
Age	.028	.010**	-.040	.010***	-.012	.010	.002	.010
Male	3.212	1.028**	.473	.521	-.553	.445	.034	.537
Black	-1.151	212***	-.240	.021	.152	.218	-1.211	.261***
Hispanic	-991	.399*	-.016	.359	-.096	.418	-.043	.402
Other Races	-.156	.335	-.661	.445	-.340	.435	-.246	.391
Juvenile Arrest History (Yes)	-.243	.229	.193	.216	-.461	.258*	-.082	.259
Schizophrenia	-1.009	.507*	-.250	391	-.488	.387	-.402	.431
Depressive Disorder	.438	.022*	.378	.246	.037	.263	-.089	.275
PTSD	-.120	.500	.128	.474	-1.472	.075*	-.118	.505
Anxiety Cluster	-.245	.535	-.009	.622	-.622	.701	-1.312	.887
Other Mental Illness	.949	.908	..843	.973	.718	.958	17.283	.662***
Substance Abuse Treatment (Yes)	-.518	.185**	.382	.210†	.675	.217***	.497	.235*
No Substance Use	-.373	.372	.159	.422	-.716	.507	-.046	.553
Employment (Yes)	.928	.241***	-.123	.391***	-.351	.223	-.178	.246
Education	-.011	.042	-.016	-.001	.060	.047***	.024	.046
Military Service (Yes)	---	---	---	---	---	---	---	---
Age of Entry	.057	.040	-.035	.055*	.029	.050†	.060	.047
Service Length	.062	.023**	.016	.030**	-.044	.034**	.035	.031
Combat (Yes)	-.602	.249*	-.307	.241*	.215	.264*	-.252	.029
Navy	-.001	.224	.052	.244	-.321	.257	-.133	.286
Marines	-.231	.238	-.135	.290	-.105	.278	.175	.286
Air Force	.607	.031	.288	.380*	-.318	.422*	-.267	.451
Other Branches	-.629	.493*	.274	.490	-1.270	.751†	-.002	.522
Less Than Satisfactory	.216	.000	-.538	.374	.191	.349	-1.000	.564†
Unsatisfactory	.078	.402	-.373	.473	.552	.040	.003	.454
Other	.416	.367	-.077	.443	..461	.404	.173	.463
Constant	-6.134	1.471***	.952	1.481	-.883	1.31	2.294	1.333†

Note. [a] Weighted N = 109,958 (n = 1,141).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

Table 17

Multinomial regression results for the military subsample with an age of entry over 17 years on misconduct type when compared to no misconduct among state inmates[a]

	Military Subsample Physical Assault		Military Subsample Major Violations		Military Subsample Minor Violations	
Variable	*b*	*SE*	*b*	*SE*	*b*	*SE*
Age	-.020	.011†	.005	.009	-.005	.010
Male	.930	.087	.683	.703	-.351	.454
Black	.349	.262	-.136	.19	.362	.202†
Hispanic	.191	.466	-.402	.396	-.022	.041
Other Races	-.032	.055	.741	.299*	.705	.347*
Juvenile Arrest History (Yes)	.164	.273	.319	.020	.009	.214†
Schizophrenia	-.056	.046	.580	.319†	-.078	.403
Depressive Disorder	.296	.294	.241	.209	-.136	.003
PTSD	1.857	.474***	.483	.492	.379	.532
Anxiety Cluster	.930	.617	.043	.548	.819	.508
Other Mental Illness	1.315	.999	-.045	1.166	1.260	.674†
Substance Abuse Treatment (Yes)	.014	.235	-.025	.18	-.013	.196
No Substance Use	-.530	.653	.340	.034	-.155	.409
Employment (Yes)	.370	.284	.862	.241***	.366	.225
Education	-.072	.059	.011	.041	.035	.041
Military Service (Yes)	---	---	---	---	---	---
Age of Entry	-.051	.048	-.123	-.000*	.035	.038
Service Length	-.046	.004	-.052	-.035*	.031	.022
Combat (Yes)	-.129	.336	-.307	.231	-.064	.238
Navy	.335	.302	.151	.212	.308	.002
Marines	.397	.031	-.230	.263	-.154	.305
Air Force	-.084	.048	.086	.312	.014	.343
Other Branches	1.025	.057†	-.231	.592	.426	.046
Less Than Satisfactory	.533	.411	.065	.316	.384	.343
Unsatisfactory	-.083	.515	-.151	.379**	-.248	.411
Other	1.005	.367**	.311	.3344	-.246	.459
Constant	-.924	1.541	.683	1.379	-1.782	1.088

Note. [a] Weighted N = 112,287 (n = 1,163).
†p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001.

APPENDIX B: BIVARIATE RESULTS FOR CONTROL VARIABLES

Table 18

Chi-square results for the full sample on offense type and misconduct type[a]

	Offense Type		Misconduct Type	
Control Variables	Chi-square values	p-value	Chi-square values	p-value
Male	529.830	.000	100.583	.000
White Non-Hispanic	448.532	.000	43.430	.000
Black Non-Hispanic	344.289	.000	55.784	.000
Hispanic	45.858	.000	44.867	.000
Other Races Non-Hispanic	27.565	.000	5.437	.142
Juvenile Arrest History (Yes)	158.414	.000	548.202	.000
Schizophrenia	26.000	.000	45.699	.000
Depressive Disorder	37.438	.000	27.613	.000
PTSD	16.983	.002	2.139	.544
Anxiety Cluster	12.281	.012	21.943	.000
Other	19.697	.001	8.638	.035
No Mental Illness	66.234	.000	89.396	.000
Substance Abuse Treatment (Yes)	285.016	.000	27.246	.000
No Substance Use	71.136	.000	27.803	.000
Employment (Yes)	178.588	.000	64.023	.000

Note. [a] Reflects weighted cases.

Table 19

Kruskal-wallis test results for the full sample on offense type and misconduct type[a]

	Offense Type		Misconduct Type	
Variable	Chi-Square value	p-value	Chi-Square value	p-value
Age	316.874	.000	144.917	.000
Education	44.261	.000	121.463	.000

Note. [a] Reflects weighted cases.

Table 20

Mann-Whitney U test results for the full sample on lifetime arrests and the number of disciplinary infractions[a]

	Lifetime Arrests		Number of Infractions	
Control Variables	Z-value	p-value	Z-value	p-value
Male	10.322	.000	7.375	.000
White Non-Hispanic	1.671	.095	-2.898	.004
Black Non-Hispanic	3.461	.001	7.407	.000
Hispanic	-6.837	.000	-6.558	.000
Other Races Non-Hispanic	0.434	.664	1.118	.263
Juvenile Arrest History (Yes)	52.609	.000	22.999	.000
Schizophrenia	6.419	.000	5.744	.000
Depressive Disorder	5.173	.000	7.098	.000
PTSD	-3.509	.000	1.986	.047
Anxiety Cluster	1.100	.271	4.156	.000
Other	1.258	.208	3.118	.002
No Mental Illness	-7.293	.000	-11.342	.000
Substance Abuse Treatment (Yes)	25.693	.000	3.585	.000
No Substance Use	-21.113	.000	-4.696	.000
Employment (Yes)	-11.339	.000	-7.432	.000

Note. [a] Reflects weighted cases.

Table 21

Correlation matrix for the full sample on lifetime arrests and the number of disciplinary infractions[a]

	Number of infractions	Lifetime arrests	Education level	Age
Number of infractions	1			
Lifetime arrests	.004	1		
Education level	-.035**	-.038**	1	
Age	-.060**	.025*	.079**	1

Note. [a]Reflects weighted cases.
*p ≤ .01, **p ≤ .001.

APPENDIX C: COMPLEX VARIABLE RECODING STRATEGIES

For the purpose of this research, several of the study variables underwent complex transformations. The detailed instructions are provided in this appendix, outlining the variable name from the original data set and the SPSS commands.

Both variables measuring institutional misconduct were transformed, using a variety of variables. Individuals were first asked if they had been written up and/or found guilty of any prison misconduct (v2517). If inmates reported "no" or "don't know," or refused to answer, a survey skip was initiated. For those who reported "yes," they were asked 15 additional follow-up questions about the types of misconduct in which they were involved and their frequency of participation in them.

The frequency amounts from each misconduct type (v2519, v2521, v2523, v2525, v2527, v2529, v2531, v2533, v2535, v2537, v2539, 2541, v2543, v2545, v2547) were added together, and the sum was re-coded into a new variable (infraction frequency). Individuals who had initially answered "no" to the original misconduct engagement question (v2517) were coded as "0." Using the recode into different variables command in SPSS, v2517 was transformed into *infraction frequency*, but carrying over only the participants who said "no" (i.e., coded as "0"), since they were excluded from answering misconduct questions due to the survey skip.

Infraction type employed a similar recoding strategy as described above. Infractions (v2518, v2520, v2522, v2524, v2526, v2528, v2530, v2532, v2534, v2536, v2538, 2540, v2542, v2544, v2546) were categorized into three main categories: (1) physical assault violations, (2) major violations, and (3) minor violations. Again, the misconduct participation variable (v2517)

was transformed into the misconduct type variable through the recode into the different variables command in SPSS, as detailed previously. In addition, inmates who reported "yes" to v2517, but answered "no" to all infraction types were also transformed into the misconduct type variable as no misconduct.

Military branch involved a complicated procedure of recoding. Inmates were first asked about military participation (v0059). For those who reported "yes," a question about branch(es) affiliation (v0060-v0065) followed. Individuals who reported "no" or "don't know," or refused to answer the participation question (v0059), should have been excluded from answering service questions and were coded as missing. However, five cases in the state data set were found to have answered the branch question despite reporting no armed forces experience and, as a result, were recoded as missing. The branch affiliation variables were initially coded as: 1 = yes, everything else = missing. In order to make these a series of dummy variables, service participation (v0059) was then transformed into the respective branch category, using the recode into different variables command.

The variable *juvenile arrest history* was compiled from survey question S6Q1b (v1198). Not all of the respondents were privy to this question, due to a survey skip. The survey skip was based on the condition that, if individuals had "0" prior arrests, then they were excluded from answering the question age at first arrest. Inmates who answered "no" to the prior arrest question (v1197) were coded as "0." Using the recode into different variables command, v1197 was transformed into v1198, but, again, carrying over only the cases marked as "0." Responses 17 and under were coded as 1 = yes, and all other responses were coded as 2 = no.

Finally, inmates were asked if they had received substance abuse treatment (v2188). Those who reported "no" alcohol (v1982) or illicit drug (v2050-v2064) use at all were excluded from answering the treatment question, due to a survey skip. Individuals who answered "no" to all usage questions were combined into one variable and coded as no = 3. Then they transformed into the substance abuse treatment variable (v2188), using the recode into different variables command. This variable was coded as: 1 = yes, 2 = no treatment, 3 = no substance use.

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