

A 21ST CENTURY ANALYSIS OF PRISON MANAGEMENT AND THE AGING
PROCESS

A Dissertation

by

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ABSTRACT

Determining appropriate theory to analyze how the aging process impacts prison management has proven difficult. Since there is little extant theory that can posit factors and trends leading to an aging inmate population and simultaneously discuss the program needs for older and elder inmates, this study reviewed multiple theories within Criminology and Aging & the Life Course perspectives. This was intended to provide a springboard into the discourse on aging and the American inmate. A mixed methods approach was performed using logistic regression and a case study of prison programs and policies. Logistic regression was used to determine whether the following factors contributed to inmates being aged in prison: race, region, offense type, recidivism, lifer status, and first time offender status. Providing a more holistic perspective of aging inmates, a case study was done with original data collection on program policies in states and the federal government in the U.S. I used four subsections to classify the types of programs and policies reported in place for aged inmates: prisons with policies, prisons with programs for males, prisons with gender responsive programs for females, and the Federal Bureau of Prisons. An integrated approach to theory and an attempt at bridging the gap between theory and application using a case study provided a more succinct body of knowledge. This not only impacts the theoretical perspective in corrections but also provides a more robust perspective for dialogue regarding the aging prison population.

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NOMENCLATURE

BOP	(Federal) Bureau of Prisons
CMA	Correctional Medical Authority
DOC	Department of Corrections
DOJ	(United States) Department of Justice
IRB	Institutional Review Board
NCRP	National Corrections Reporting Program
NIC	National Institute of Corrections
NIJ	National Institute of Justice
OIG	Office of Inspector General
U.S.	United States

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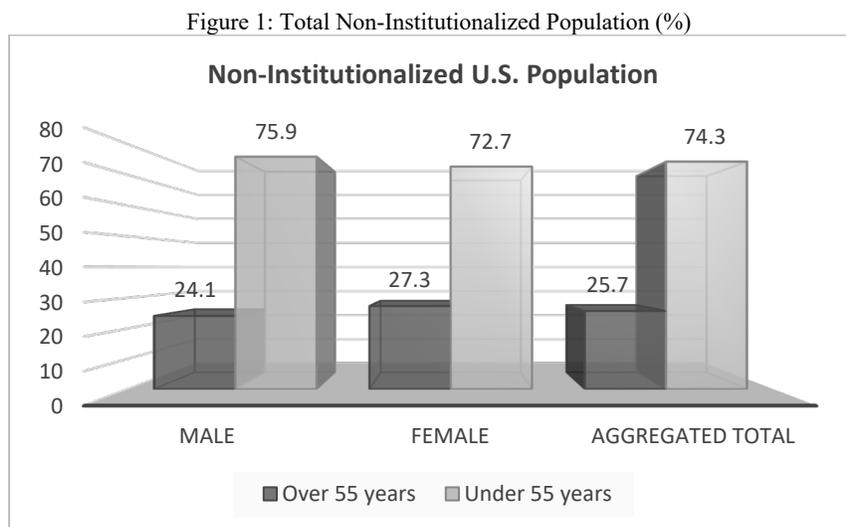
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CHAPTER I
INTRODUCTION

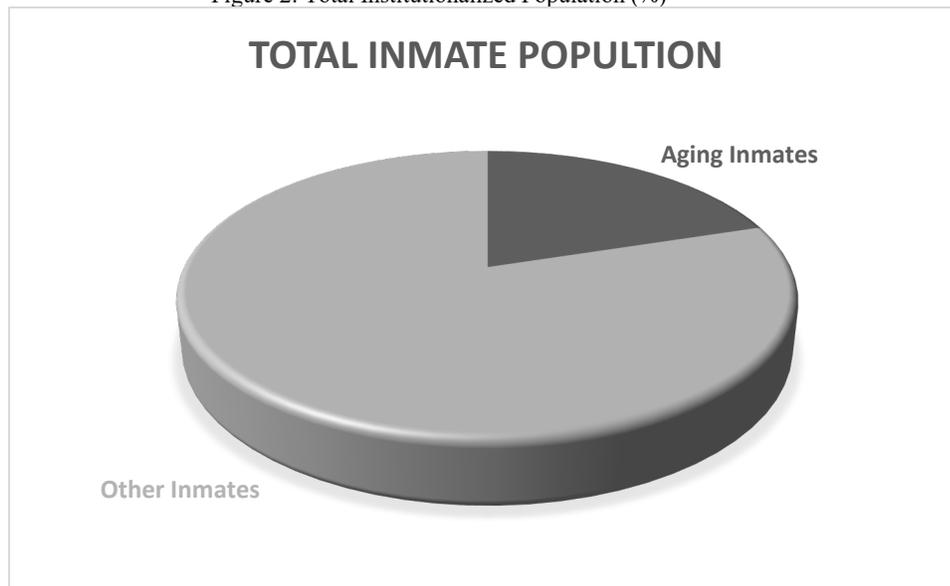
The graying of America has direct consequences on the graying of the prison population. According to 2012 census data, non-institutionalized citizens over age 55 comprised approximately 26% of the total U.S. population (Figure 1). From 1970 to 2010, approximately four decades, U.S. prisons have undergone an unprecedented and steady increase in the inmate population (Clear & Frost 2014; Western 2006; Garland 2001). At the turn of the century, there was an upward trend in the growth of America’s prison population. The aging inmate population grew by approximately 550% between 1990 and 2012, according to the National Academy of Sciences (Travis, et al. 2014). The journey into mass incarceration was more than “get tough on crime” legislation or an answer to an increase in crime. Clear and Frost (2014) contend that it was a “grand social experiment of dramatic proportions” (47). In other words, it was a “consequence of changes in our orientation to crime and in the policies that were used to deal with crime as a social problem” (Clear & Frost 2014:47).



Data from U.S. Census Bureau. 2013.

The aging prison population is predicted to increase due to aging population growth in general, age at prison admission, and lengthy sentences for drug offenses. With roughly 30% of Americans attributable to the category of over 50 years, it is comparable to isolate similar trends within the prison population (Rikard & Rosenberg 2007; Krabill & Aday 2006; Williams & Rikard 2004). As noted by the Bureau of Prisons (2015), aging inmates represent approximately 18% of the federal prison population. Aging inmates represent 30% of the overall prison population (DOJ 2014), inclusive of state and federal facilities (Figure 2). This is congruent with the representative proportion of persons over age 55 in the overall U.S. population in 2012.

Figure 2: Total Institutionalized Population (%)



Data from DOJ, Bureau of Justice Statistics. 2014. National Corrections Reporting Program, 2000-2012.

By 2004, programming and/or policies existed for aging male inmates in 23 states compared to existing programming and policies for females in 2 states (Williams & Rikard 2004). Prisons with informal policies typically utilize an aging male framework to address the

needs of the aging female. Demarcating policies between aging male inmates and aging female inmates will provide a more congruent plan to manage the divergent needs of males and females. Female inmates exhibit health concerns relative to aging much earlier than their male counterparts (Aday & Farney 2014; Rikard & Rosenberg 2007; Krabill & Aday 2006; Williams & Rikard 2004), and the amount of funding necessary to care for female inmates is much higher (Aday & Farney 2014; Krabill & Aday 2006; Williams & Rikard 2004). In an effort to mitigate the financial impact, it is plausible to incorporate tailored policies for aging inmates specific to gender needs. Since much of literature focuses on aging male inmates, the current state of theoretical development lacks the depth to provide adequate guidance for prison planning.

Convergence of Trends

Existing literature states that there is a convergence of three trends contributing to an increase in the aging inmate population: aging of the baby boomers, a shift from rehabilitation to incapacitation and retribution in the criminal justice system, and a prison boom (Rikard and Rosenberg 2007). Baby Boomers in the United States are characterized as those born between 1946 and 1964. Along with the eighty million American Baby Boomers who will become senior citizens, advances in medical technology and increased life expectancy resulted in a significant increase in the aging and elderly population. This did not bypass prison populations, as the characteristics of the general US population are mirrored within prison facilities but is often manifested at earlier ages with a risky population such as aging inmates.

From the early 1970s to the early 21st century, the U.S. criminal justice system shifted from rehabilitation toward incapacitation and retribution (Delgado and Humm-Delgado 2008; Rikard and Rosenberg 2007). Indicators of the shift include mandatory sentencing, "three-strikes" programs, eliminating judicial and/or prosecutorial discretion, and various "get-tough on

crime” policies. These factors translated into longer, mandatory sentences. The shift to incapacitation served as the dominant rationale for longer periods of imprisonment, as well as the growth in the proportion of older inmates (Auerhahn 2002).

In tandem with the shift to incapacitation, a prison construction boom occurred. Simultaneously, for-profit prisons became increasingly popular and exemplified the big business nature of imprisonment (Delgado and Delgado 2008; Stein 2004). These collective factors and trends contribute to the “graying” of the U.S. prison population. Given the changing landscape of corrections and the criminal justice system as a whole, more factors are expected to contribute to the aging inmate population growth. These factors are partly the result of the U.S.’s commitment to mass incarceration and determinate sentencing guidelines. Given the increase in length of sentences as a result of mass incarceration, sentence length can be a factor contributing to the proportion of aged inmates in prison (Travis, et al. 2014).

Aging Inmate Characteristics

The aging inmate has been characterized as fifty years of age or older (Rikard & Rosenberg 2007; Aday 2003; NIC Videoconference 2001). Demarcation for aging persons outside of the correctional setting is sixty years of age, which is approximately ten years older than that of the aging inmate. This designation has been attributed primarily due to the inmate’s lifestyle, minimal – if any – access to medical care, and a low socioeconomic status. Aging female inmates have more complex medical histories, as well as psychological issues, which have an earlier onset when compared with male inmates (NIC Videoconference 2001). As a result of more complex medical histories and the onset of the aging process presenting much earlier, the age at which a female inmate begins to exhibit signs of aging is 5 to 10 years earlier than male inmates. The limited literature also suggests that an aging female inmate should be

characterized by age 40 (Aday & Nation 2001; NIC Videoconference 2001; NIC 1997; Aday 1994a). Noting similar socioeconomic status as male inmates with more complex medical histories, Williams & Rikard (2004) have defined the age of an elderly female inmate as 45 years of age or older. For purposes of this analysis, age 45 will be used as the lower limit for aging female inmates.

Female offenders typically have histories of economic disadvantage and abusive pre-incarceration environments, as well as psychological concerns and decaying health. Aday (2003) further stipulates that “of the total number of women imprisoned in U.S. prisons in 1999, some 2,078 were between the ages of 55 and 74. Another 130 females currently serving time in state and federal prisons were over the age of 75” (173). This increase in inmates with complex medical histories can be the framework for an increased financial burden on a system with already limited resources.

Typologies have been developed to categorize aging inmates: first time offenders, recidivists, and lifers (Aday 2005; Aday 2003; Corwin, 2001; NIC Videoconference, 2001; Aday 1994b). First time offenders are those inmates who were incarcerated for their first offense after the age of 50. Recidivists are those inmates who are career or habitual offenders. Lifers are those inmates who received long-term sentences associated with a longer relationship with correctional institutions. No substantial evidence has been shown to infer that aging female inmates can be categorized by the same typologies as aging male inmates. However, Aday (2003) noted that the majority of aging female inmates are first-time offenders serving long term sentences for non-violent, drug-related offenses. Eggleston and Laub (2002) stated that “there is an even higher percentage of adult onset offenders among the female adult offender population” (614) when compared to their male counterparts.

Policies and Programs for Aging Inmates

While all prisons in the U.S. provide medical options for inmates, very few have policies and programs for older inmates that provide medical education, exercise training, and other social services that can aid an inmate in the aging process. The value of these types of programs is insurmountable in decreasing prison resources and giving older inmates agency in their health and treatment plans. Programs that can educate inmates on illnesses faced in later life, along with teaching them ways to care for themselves, provide a sense of agency and self-assurance. Knowing the types of food to buy from commissary and the foods to avoid can stave off worsening health and lessen trips to the infirmary. Providing exercise programs strictly for the aged can also increase agency and self-esteem while also decreasing healthcare visits. This dissertation, therefore, provided an exploratory analysis of the non-medical policies and programs for aged inmates, as well as their formal and informal implementation.

A non-theoretical framework has laid the foundation for non-standardization of policies and/or programs within correctional settings. When policies exist, they often utilize ad hoc and informal processes to aid the aging inmate population. As a result, there is no consistency among policies or programs from state to state (Aday & Krabill 2006; Williams & Rikard 2004). Since Rikard & Rosenberg (2007) and Williams & Rikard (2004), there has been no evidence to support the notion that prisons are prepared for the increasing population of older inmates. Previous literature shows that programs exist for aging male inmates in 23 states (Rikard & Rosenberg 2007; Williams & Rikard 2004; NIC 1997) compared to programs for females in 2 states (Rikard & Rosenberg 2007; Williams & Rikard 2004). More than a decade ago, Ohio was

the only state Department of Corrections (DOC) to provide gender responsive¹ programming options for aging inmates. It is expected that the current state of prison programs is congruent with past figures and programming options.

Financial Impacts

An increase in inmates with complex medical histories can be the basis for a growing financial burden on a system with already limited resources. Extant literature examines potential burdens on the prison system relative to programs and policies for aging and elderly inmates. According to Florida's Correctional Medical Authority (2014), older inmates use more medical resources than younger inmates due to presentation of more health issues. As a result, the cost to care for inmates over age 50 is approximately three times higher than costs to care for younger inmates (CMA 2014; Williams & Rikard 2004). It is also estimated that the care and housing of aging inmates is "more than twice the average annual cost for a full service nursing home" (Corwin 2001:688). Given that "costs to incarcerate [aging inmates] are increasing at a faster rate than for younger inmates" (OIG 2015:11), more attention needs to be focused on ways to mitigate the financial impact this population will have on prison management and financial resources.

The amount of funding necessary to care for female inmates is much higher than for male inmates. Once advancing age is added to the equation, the cost to care for aging female inmates is much higher than average costs for other populations with the exception of inmates with terminal illnesses (Williams & Rikard 2004). In an effort to mitigate the financial impact, it is

¹ Gender responsiveness refers to policies and/or programs that have been created with the express purpose of fulfilling the needs of a particular gender (females, in this instance).

plausible to incorporate tailored policies and/or programs for aging inmates specific to gender needs. Life course perspectives² can help inform appropriate social policy and programs at various transitions along the aging process.

Gender Responsiveness

This analysis will explore whether prison policies and/or programs for aging inmates utilize gender responsiveness. In other words, an exploration will be undertaken to discern whether the needs of female inmates are considered when developing such programs and policies. Prisons that have developed policies and/or programs for aging inmates have focused their efforts on male inmates. Instead of proactive planning, correctional institutions have been highly reactive to medical and other needs of the aging. Since there are larger numbers of male prisoners, the primary focus has been on controlling that population. Despite the advent of a growing female inmate population with longer sentences, many correctional institutions have not made aging female inmates a priority. Those prisons with informal policies or ad hoc programs tend to utilize an aging male framework to address the needs of the aging female. An example of gender inequality is represented by the response from the warden of a women's prison in California when asked to operate a female institution which had been designed specifically to accommodate male offenders. She responded by stating that "it is impossible to apply a standardized design for a men's facility to a women's facility and expect it to work" (Nadel 1996:78).

Males and females exhibit health problems in diverse ways and at different times. Consequently, male and female inmates "do time" differently (Chesney-Lind 2002; 1998; 1997).

² Life Course perspectives are discussed in the Theoretical Framework found in Chapter 2 of this dissertation.

This calls for gender-responsive planning for the growing aging inmate population. Any policies and/or programs for aging female inmates should consider this disparity. As such, gender responsive programs and/or policies are crucial to meeting the needs of the aging female inmate. Demarcating policies between aging male inmates and aging female inmates will provide a more congruent plan to manage the divergent needs of males and females, as female inmates exhibit health concerns relative to aging much earlier than their male counterparts (Aday & Farney 2014; Williams & Rikard 2004; NIC Videoconference 2001).

An increasingly high impact on prison resources and prison management is inevitable with the growth in the aging inmate population. This should be an important topic of concern for correctional planning since the federal prison population grew by 19% from 2004 to 2014 (Bureau of Prisons 2015). The increase in the overall prison population, inclusive of federal and state facilities, will bring with it care and housing concerns for inmates over the age of 50. Given the potential impact on prison resources, prison officials should heed these concerns. From a policy perspective, there are ways to mitigate the depletion of resources with minimal impact. This leads to issues of theory that provide few, if any, guidelines or behavioral expectations relative to aging inmates. Sociologists and Criminologists should find the following discussion relevant for theory development and policy implications.

CHAPTER II

THEORETICAL FRAMEWORK

The increase in the overall prison population, inclusive of federal and state facilities, will bring with it care and housing concerns for inmates over the age of 50. Given the sparse literature on aging inmates, prison officials will have a difficult venture in determining key indicators of aging inmate behavior and in discerning among programming options to consider for their facilities.

Determining appropriate theory to analyze how the aging process impacts prison management has proven difficult. Since there is little extant theory that can posit factors and trends leading to an aging inmate population and simultaneously discuss the program needs for older and elder inmates, this study will review multiple theories with the goal of creating an integrated theory. Given the sparse literature relative to the aging inmate, a review of literature within various, academic genres will provide the theoretical framework for this analysis: Criminology and Aging and the Life Course.

Selected Criminological Perspectives

The increase in the number and percentage of aging inmates results from the convergence of three trends: baby boomers, shift from rehabilitation to incapacitation and retribution in the criminal justice system, and a prison boom (Rikard and Rosenberg 2007). Along with the eighty million American Baby Boomers (those born between 1946 and 1964) who will become senior citizens, advances in medical technology, and increased life expectancy did not bypass prison populations. From the early 1970s to the early 21st century, the U.S. criminal justice system shifted from rehabilitation toward incapacitation and retribution (Delgado and Humm-Delgado

2008; Rikard and Rosenberg 2007). Indicators of the shift include mandatory sentencing, "three-strikes" programs, eliminating judicial and/or prosecutorial discretion, and various "get-tough on crime" policies. These factors translated into longer, mandatory sentences. The shift to incapacitation served as the dominant rationale for longer periods of imprisonment, as well as the growth in the proportion of older inmates (Auerhahn 2002). In tandem with the shift to incapacitation, a prison construction boom occurred in state Departments of Correction and the Federal Bureau of Prisons (BOP). Simultaneously, for-profit prisons became increasingly popular in the last two decades of the 20th century and exemplified the big business nature of imprisonment (Delgado and Delgado 2008; Stein 2004). Because of the big business perspective in prisons, the growth in prisons is not correlated with an increased crime rate. Profit is the focus, instead of public safety and offender rehabilitation. In short, the convergence of trends results from the "graying" of the general and prison populations, the shift from rehabilitation to incapacitation, and the resulting prison boom.

At the turn of the 20th Century, crime decreased by roughly 50% (Western 2006). However, the prison industry boomed simultaneously with rehabilitation losing focus in favor of more harsh punishment. The prison boom was accompanied by a rise in incarceration despite a drop in the crime rate. While the incarceration rates in the United States were much higher than in similarly situated countries, the United States has six times more people imprisoned during the period of the prison boom (Western 2006). Racial and class disparities within prisons are overarching, with Black people being the primary recipients of mass incarceration. In addition, risk of imprisonment was highest among those without a college education. Prison became

pivotal in shaping the life course³ of uneducated, Black men. For this cohort, prison was twice as likely as military service (Harris & Harding 2019; Pager 2007; Western 2006; Pettit & Western 2004). Given the upward trajectory in female convictions in recent years, I propose that *as the proportion of racial minorities in prisons increases, so will the growth in aging male inmates and aging female inmates out of all inmates, net of other variables in the model* (Hypothesis 1).

Western (2006) attempts to unravel the correlation among inequality, crime, and the prison boom. In developing an explanation for why large numbers of undereducated, minority men are being imprisoned, he analyzes two underlying themes: disadvantaged men are involved with crime at higher rates than their counterparts, and crime and imprisonment trends are sparsely correlated over time. He finds that there is little evidence to support that “a large fraction of the class inequality in incarceration is also attributable to class differences in offending” (Western 2006:50). He also found that there are three explanations for the growth in imprisonment. 1) The use of imprisonment for those convicted of committing crimes has increased significantly. 2) Offenders are serving longer sentences than in previous decades. 3) The war on drugs substantially increased the number of persons prosecuted and imprisoned for drug-related offenses. It is expected that sentence length will contribute to the growth in the aging inmate population. However, parts of this variable are used in the subsequent quantitative analysis accounting for lifer and death row statuses among inmates. Since the utility of those statuses are needed more, sentence length in totality will not be addressed.

³ Life course refers to the occurrences and events that take place over time throughout one’s life. These occurrences and events are socially constructed and socially determined to be acceptable, deviant, and/or criminal.

Economic and policy changes are precursors to America's prison boom and, ultimately, mass incarceration. Mass incarceration has led to market collapse, unemployment, and "jobless ghettos" (Western 2006). Extant literature has analyzed rates of incarceration throughout the United States but has not provided any connection between the prison boom and unemployment of unskilled and undereducated Black men. Western (2006) distinguished his work by focusing on inequalities in class and race within prisons, finding that class and race markers were paramount.

Incarceration rates were much higher for those offenders who were unemployed. As stated previously, Black men are incarcerated at a much more disproportionate rate than other races. Policy changes shifted from indeterminate to determinate sentences in many areas across the United States. However, there are mixed, quantitative conclusions as to whether this shift has impacted the growth in imprisonment. Western (2006) did note that there is quantitative evidence to support that the prison boom was promoted by Republican governors. "As joblessness and low wages became enduring features of the less-skilled inner-city economy, the effects of a punitive criminal justice system concentrated on the most disadvantaged" (Western 2006:79).

Prisons are considered non-economic institutions despite the profit involved with privatization in whole or in part, as well as other economic aspects. Western (2006) uses *Punishment and Inequality in America* to illustrate invisible inequality within prisons and to show that "non-economic institutions matter" (86). The invisible inequality in prisons depicts the short-term effects of mass incarceration. The long-term effects of mass incarceration find themselves in the labor market for released offenders (Pager 2007; Western 2006). Incarceration may or may not be a turning point in the life course; a turning point is a transition, event, or experience which can alter one's initial path and ultimately determine a person's trajectory. A

prison stint can reduce employment and overall financial stability throughout the life course, which can result in recidivism.

Pager (2007) also examined the role of mass incarceration on labor market effects and earning potential for released offenders, ultimately analyzing economic inequality. Factors, such as employment and income stability, have shown to influence and encourage desistance from crime over the life course. Without this economic stability, there is potential for a lack of positive turning points throughout the life course. Incarceration has become a normal part of the life course for young Black men (Harris & Harding 2019; Pager 2007; Western 2006; Pettit & Western 2004). Facing economic instability upon prison release, many continue involvement in criminal behavior and, eventually, return to prison. Further to that point, “[g]iven the immense barriers to successful reentry, it is [of] little wonder that such a high proportion of those released from prison quickly make their way back through the prison’s revolving door” (Pager 2007:3).

While a prison record was important in determining employment chances, the more significant indicator was race, specifically being Black. Race and criminal record define identity and determine available employment opportunities. However, race is a marker for employment opportunities regardless of incarceration status. Pager (2007) also indicates that historical government and prison policies led to mass incarceration and, subsequently, to fewer labor market opportunities available to released offenders.

During the last decade of the 20th Century, a decrease in crime was, at best, loosely correlated with imprisonment. Mass imprisonment had a minimal effect on crime control for three reasons: 1) imprisonment of drug offenders does not prevent or deter serious crime; 2) the more incarceration is implemented, the less deterrent it will be; and 3) crime reduction may not be as effective as expected due to crime commission by released offenders due to their previous

incarceration (Western 2006). “Mass imprisonment is thus a key component in a system of inequality – a social structure in which social inequalities are self-sustaining and those at the bottom have few prospects for upward mobility” (Western 2006:196). In other words, poor communities, specifically those with a large minority population, will bear the brunt of mass imprisonment in a continual cycle of concentrated disadvantage.

Pager (2007) indicates that mass incarceration has given way to new social inequalities. The effects of mass incarceration must be mitigated for offenders’ successful reentry into society and hopeful desistance from crime. Additionally, crime policies must be evaluated to understand the racial and social implications at play in support of a mass incarceration doctrine. Crime policies not only affect the offender but also affect society in ways that can be lessened. Mass incarceration does not happen in a vacuum. Instead, the effects of mass incarceration lingers throughout families, children, communities, and schools (Mitchell 2019; Chung & Hepburn 2018; Foster & Hagan 2015; Wildeman & Wakefield 2014; Hagan & Dinovitzer 1999). Moving towards a more rehabilitative punishment scheme will seek to ensure that offenders released into the community will fare better, given appropriate employment and residential opportunities.

Despite inmate population growth and the expected graying trend within prisons, aging has received little attention. Luallen and Kling (2014) provide statistical support for an explanation as to why America’s prisons are graying. The general premise supported by their analysis (Luallen and Kling 2014) is that age of the offender at the time of prison admission is the most influential factor contributing to the aging of America’s prison population. While Luallen and Kling (2014) have filled a quantitative space otherwise left blank, there are still unanswered questions about the causes of older offenders entering prison.

In the absence of theoretical guidance to explain older offenders' engagement in criminal activities, Aday (2003) utilized theoretical perspectives from both criminology and gerontology in an effort to examine crime patterns of the elderly. He contends that "elderly criminality is difficult to explain because criminal behavior is an atypical activity among those who have reached the later stages of life" (Aday 2003:80). Typologies have been developed to categorize aging inmates: first time offenders, recidivists, and lifers (Aday 2003; Corwin, 2001; NIC Videoconference, 2001; Aday 1994b). First time offenders are those inmates who were incarcerated for their first offense after the age of 50. The recidivists are those inmates who are career or habitual offenders. Lifers are those inmates who received long-term sentences associated with a longer relationship with correctional institutions.

Aday's aging inmate typology (2003) is expected to be more applicable for male inmates when compared to female inmates, given that the original typology was normed on White males. It is also uncertain whether males other than White males will fall within Aday's typology (2005). Pertaining to the current analysis, the typology is expected to yield congruent results and will be explored to determine whether Aday's typology (2005) is applicable for female inmates.

No substantial evidence has been shown to infer that aging female inmates can be categorized by the same typologies as aging male inmates. However, Aday (2003) noted that the majority of aging female inmates are first-time offenders serving long term sentences for non-violent, drug-related offenses. Eggleston and Laub (2002) stated that "there is an even higher percentage of adult onset offenders among the female adult offender population" (614), when compared to their male counterparts.

Given the lack of evidence within literature to support whether aging female inmates can be categorized by the same typology as their male counterparts (Williams & Rikard 2004), the

current aging inmate typology (Aday 2003) is expected to be partially applicable for aging female inmates. As a result, the following hypotheses are introduced in this analysis. *A greater proportion of **recidivists** in the prison population will contribute to more aging male and aging female inmates in the prison population, net of other variables in the model (Hypothesis 3a). A greater proportion of those serving **life sentences** or being on **death row** in the prison population will contribute to more aging male and aging female inmates in the prison population, net of other variables in the model (Hypothesis 3b). A greater proportion of those serving time as **first time offenders** will contribute to more aging males and females in the prison population, as they would have been admitted to prison over age 45 or 50 for females and males, respectively, net of other variables in the model (Hypothesis 3c).*

Additionally, I propose that *a greater percentage of males sentenced for **violent crimes** will positively influence the size of the aging population in prison; however, a greater percentage of females sentenced for **property and drug crimes** will contribute to a higher percentage of imprisoned females in the older age categories, net of other variables in the model (Hypothesis 4d).* This analysis, along with the variables included in the current typology, is expected to provide a better understanding of what both the aging male inmate and the aging female inmate populations' characteristics are in the 21st Century.

Another area of note is how incarceration is affected by region. Scholars have discussed region and its relationship with arrest and/or offense type (Beck & Blumstein 2017; Blumstein 1993; Hawkins & Hardy 1989; Christianson 1981), as well as the socio-political environment of mass incarceration (Campbell, Vogel, & Williams 2015). The sociopolitical environment, according to Campbell, Vogel, & Williams (2015), is explained by higher incarceration rates

within sunbelt states⁴ due to Republican governors, political conservatism, and religious fundamentalism. They contend that attitudes towards race and crime consistently focused more on Black offenders despite the marked decline in crime rates amongst the Black community (Campbell, Vogel, & Williams 2015). While the focus for the current analysis is on regional effects of incarceration, it is important to highlight Skolnick's (1966) "symbolic assailants" in the discussion on race and incarceration as it relates to regions within the sunbelt. This term "suggests that race was particularly important in sparking, driving, and sustaining political demands for more incarceration even when violence declined" (Campbell, Vogel & Williams 2015). It further stipulates why an analysis on perception of crime and criminals is important. While this term has been commonly associated with Black male offenders and the attitudes associated with it have fueled mass incarceration, I would suggest that this term would also be inclusive of Black females. Since this discussion is not within the scope of this analysis, region will be discussed as a contributor to the increasing population of aging inmates. For purposes of this analysis, region will include four quadrants: Northeast, Midwest, South, and West (Beck & Blumstein 2017; Sorenson, Hope, & Stemen 2003). While there has been discussion of the effects of region on incarceration rates, there is no consistent effect noticed over time. This is mainly due to the changing political landscapes within the United States as a whole, as well as the differing political landscapes and ideologies from region to region. Region will be discussed further in subsequent chapters using the West quadrant of the United States as the referent category. More simply put, I propose that *aging male inmates are more likely to have been*

⁴ The sunbelt consists of the following states: Alabama, Arizona, California, Florida, Georgia, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, South Carolina, and Texas (Campbell, Vogel, & Williams 2015).

incarcerated in the Midwest, Northeast, and South regions of the United States when compared to their male counterparts in the West region of the United States, net of other variables in the model (Hypothesis 4a). Similarly, aging female inmates are more likely to have been incarcerated in the Midwest, Northeast, and South regions of the United States when compared to their female counterparts in the West region of the United States, net of other variables in the model (Hypothesis 4b).

Aging and the Life Course

Until Sampson and Laub (1993)'s *Crime in the Making: Pathways and Turning Points Through Life*, researchers believed that there was little value in longitudinal analysis because adult deviance and criminality were not the basis of one's criminality. The number of arrests, time served in prison, and the proportion of time married are a few variables included within their latent growth analysis. Ultimately, Laub & Sampson (2003) identified three (3) categories: desistant offenders, persistent offenders, and zigzag career criminals.

Desistant Offenders are those inmates who taper away from criminal activity along the life course. Persistent offenders consistently engage in criminal activity throughout the life course. Lives of the remaining group of intermittent offenders were so varied that no patterns emerged, which is why they have been called Zigzag Offenders (Laub and Sampson 2003). These offenders were categorized into 3 groups: Late Onset of Violence group, Late Desisters, and Intermittent Offenders. Offenders who experienced first arrest for violence after age 35 (later adulthood) became known as the "late onset of violence" group, distinguished from persistent offenders who displayed violence early and often throughout the life course. "Late desisters" were the men who desisted from crime in their late 20s into their 30s. "Intermittent" or "Hybrid" Offenders were men who displayed intermittent patterns of offending over the life course.

There is little extant literature on adult onset offending and why people commit crimes in later life. Eggleston and Laub (2002) stated that approximately half of adult offenders commit their initial crime after age 18. This is consistent with the “late onset of violence” group purported by Laub and Sampson (2003). Further, Laub and Sampson (2003) noted that “employment is the only correlate to affect the probability of adult offending differently for previously delinquent and nondelinquent offenders” (603).

Elder, et al. (2003) revised and reintroduced five principles that define primary analytic and conceptual themes of life course. *Life-Span Development* indicates that development and aging are lifelong processes. *Agency* posits that through actions and choices, bounded by history and social position, people choose their life course. *Time and Place* dictate that historical experiences form a person’s life course. *Timing* explains that consequences of events, actions, and transitions vary according to when they are introduced in someone’s life. *Linked Lives* expressed that social and historical experiences influence the inter-related relationships that connect people’s lives together.

These five principles steer research away from age-specific studies and towards the recognition of individual choice and decision-making. They promote awareness of larger social contexts and history and of timing of events and role change. They also enhance the understanding that human lives cannot be adequately represented when removed from relationships with significant others. Allowing these principles to guide inquiry promotes the holistic understanding of lives over time and across changing social contexts (Elder et al. 2003:13).

Life course is viewed as a theoretical concept encompassing “age-graded patterns that are embedded in social institutions and history. This perspective emphasizes social pathways in historical time and place for human development and aging” (Elder, et al. 2003:4). Elder (1998) maintained a consistent theme: "changing lives alter developmental trajectories" (1). Utilizing

the above principles, it is made evident that not all people can choose their pathways. All life decisions and choices are grounded in an individual's social reality, culture, and available opportunities. Retrospective analysis can also be effective in explaining techniques used and explaining how those decisions affect the life course.

Human development and aging are lifelong processes. Laub & Sampson (2003) viewed age as invariant, pointing to the fact that all people decrease offending as they age. Deviating from their original position, Laub and Sampson (2003) partially agreed with Gottfredson and Hirschi (1990) as it related to age-crime but disagree on any other factors. They found that there are important differences in adult criminal trajectories that cannot be predicted from childhood, which all stem from stability and change over the life course. Laub and Sampson (2003) found that life histories suggest a general process of desistance from crime that is not necessarily distinguished by offense type. This is consistent with the General Theory of Crime (Gottfredson and Hirschi 1990). Offenders desist as a result of individual choices or agency, and “[m]ost offenders desist in response to structurally induced turning points that serve as the catalyst for sustaining long-term behavioral change” (Laub & Sampson 2003:149). Each turning point creates new situations (Laub and Sampson 1993; Sampson and Laub 1993; Paternoster, et al. 1997; Laub and Sampson 2003). For example, one can “knife off” (Laub & Sampson 2003) the past from the present by completely removing any past remnants of criminal activity from the present in order to succeed.

Factors at each stage of the life course – childhood, adolescence, young adulthood, and mid-life – encourage criminal behavior to persist. Personal agency and other factors spur an offender to persist in criminal activity. Turning Points are often absent in the lives of persistent offenders. Without employment, close attachments, or residential stability, routine activities

present in a different manner than for those with lifelong stability; there were more available opportunities to be involved in criminal activity. This finding rejected Sutherland and Cressey's (1966) Differential Association Theory, which stated that criminal behavior is learned through interaction with others. However, it supported Matsueda & Heimer's Symbolic Interactionism Theory (1997), which stated that a lack of structure affects behavior by "delimiting opportunities, and affecting the generalized other and identities by affecting communication networks, peer associations, and subcultural affiliation" (195). A noteworthy concern with this analysis presents itself in the learned behaviors acquired while incarcerated. The men in the Life Course Persisters group (Laub & Sampson 2003) frequented prisons and jails. Positive turning points may have been absent from their lives, but that does not negate the effectiveness of criminal associations that can result in negative turning points or continual criminal activity. Further, prisons and jails provide structure that can expose the persister to additional criminal opportunities. Symbolic interactionism will still exist, but it can manifest in a divergent form. For women, the associations which exist while incarcerated can manifest differently (Giordano 2010). As women do time differently from men (Chesney-Lind 2002; 1998; 1997), the types of association for female inmates tend to be more familial and can often encourage desistance upon release. Job and income stability are the primary indicators of desistance for men (Benda 2005; Laub and Sampson 2003; Sampson and Laub 1993).

Findings indicate that there is a large degree of variance through the life course relative to criminal offending and major life events for persisters (Laub and Sampson 2003; Sampson and Laub 1993). Laub and Sampson (2003) stated that "[d]esistance processes are at work even for the highest-risk and predicted life-course-persistent offenders" (112). High-rate chronic

offenders, who comprise approximately 3% to 6% of all offenders, prove that all types of offenders desist with age (Laub and Sampson 2003).

Continuity and Change

Instead of following the traditions of the developmental theorists or Gottfredson and Hirschi (1990), Laub and Sampson (2003) repurposed the Age-Graded theory which falls between those opposite positions. They viewed age as invariant, pointing to the fact that all people ultimately decrease offending as they age despite the various pathways involved. There are important differences in adult criminal trajectories that cannot be predicted from childhood, which all stem from continuity and change over the life course (Paternoster, et al. 1997; Laub and Sampson 2003).

The effects of continuity and change can occur at any given time and place through the life course (Laub and Sampson 2003; Paternoster, et al. 1997; Laub and Sampson 1993; Sampson and Laub 1993). Once an individual decides to persist in crime, he or she is reinforcing continuity. Reinforcement of change occurs when one who normally commits crime desists and when one who normally does not commit crime has initial involvement with criminal behavior. Each turning point creates new situations which are pivotal in understanding the life course (Laub and Sampson 2003; Paternoster, et al. 1997; Laub and Sampson 1993; Sampson and Laub 1993) and allowing opportunities for identity transformation. As such, the importance of continuity and change is solidified and distinguished from self-selection by self-identifying as criminal based upon past criminal trajectory (Paternoster, et al. 1997; Laub and Sampson 1993).

Elder (1998) stated that "[a]s the life course theory advanced, it provided a framework for studies that relate social pathways to history and developmental trajectories" (6). This allowed for possibilities of analyzing the multi-faceted changes facing children in contemporary times.

Moreover, "lives in motion" (Elder 1998:7) can be analyzed by studying transition experiences. Key to Elder's (1998) analysis is that a lack of opportunities and a history of disadvantages will trump the greatest "talent and industry" (9).

Life course perspectives provide an avenue to analyze how people's lives are linked to social change and historical events. Along with the changing demographic of the United States, this perspective is malleable enough to keep up with diversity and a rapidly growing political landscape. "The saliency of such diversity on a social level emphasized the need to understand diversity on an individual level – how the trajectories of individual lives differ across social groups" (Elder 2003:6). Incorporation of such social contexts of human lives has allowed an explanation of trajectories and a prediction of the types of social programs that may be needed to help individuals reach necessary turning points. This will provide adequate opportunities for human agency to be effective. By doing so, long-lasting changes can be made to one's pathway through the life course.

This also has implications for the aging population. A view of trajectories over the life course spotlights the vast range of events and turning points as one ages. Furthermore, "age represents not only a point in the life span and a historical marker but also a subjective understanding about the temporal nature of life" (Elder 2003:10). Expectations for life transitions have been noted and expressed the contingency of aging on social norms. Social norms inform transitions and guide social pathways through the life course. As the U.S. population ages, life course perspectives can help foster appropriate social policy and programs at various transitions along the life course.

Girls' and Women's Pathways Through the Life Course

The Ohio Life-Course Study (OLS), a longitudinal analysis, focused on incarcerated juvenile offenders seeking to explain why and how girls become delinquent (Giordano 2010). The OLS follow-up examined adolescents who were children of previously delinquent and/or criminal parents and who were in marginal living conditions. This study distinguished itself from extant literature by focusing on learning influences within the family context, inclusive of the effects of parental actions on children's reactions to such action and their subsequent behavior. Giordano (2010) indicated that "both biological predisposition and parenting style play[ed] a significant role" (3) in the intergenerational transmission of delinquent and criminal behavior. "Women's desistance from crime seems to be facilitated by satisfying relationships with romantic partners [not involved in criminal behavior], friends, and their family of origin" (Benda 2005:339). The associations which exist while incarcerated can manifest differently than that of their male counterparts (Giordano 2010). As women do time differently from men (Chesney-Lind 2002; 1998; 1997), the types of association tend to be more familial and can often encourage desistance of criminal behavior.

Block, et. al. (2010) contributed to the discourse relative to female criminality in the life course by noting that there are six key areas where female offending differs from male offending: Prevalence, Age of Onset, Desistance, Frequency, Crime Mix, and Patterns of Life-Span Offending. While the late teen years reached peak offending for males, this was not the case for females. Girls and women are less likely to engage in criminal behavior than boys and men. Age of onset criminality is much older for females, when compared to males. According to Block, et. al. (2010), "[s]ignificantly more women than men began offending at age 45 or older, even when controlled for the number of lifetime offenses" (92). This is significant, given that

female inmates begin to show signs of aging at age 45 (Aday & Farney 2014; Williams & Rikard 2004) compared with age 50 for male inmates (Rikard & Rosenberg 2007; Aday 2003; NIC Videoconference 2001). Desistance was found to start at age 39 for men and age 41 for women, tempered by the number of convictions throughout the life course (Block, et. al. 2010).

Block, et. al's (2010) findings debunk the commonly held ideology that desistance occurs between ages 20-29. Further, the average offense frequency for females is less than half that of males throughout the life course (Block et. al. 2010). Women's average rate of convictions declined between ages 20-40; they did not decline for men during the same period. Female chronic offenders with more than five convictions had a much earlier onset of criminality with a longer duration, predisposing them to a likelihood of potential violent offenses throughout the life course. Holding for chronicity, there was no gender difference in years free of conviction. Relative to Crime Mix, criminal careers are not specialized but are, rather, diverse. Girls' and women's offenses were overwhelmingly for property crimes. The proportion of violent crimes was significantly higher for men. Even though a small number of males and females exhibited a chronic trajectory, it was less common in females than males. Women overwhelmingly fell into the category of sporadic offenders. (Block et. al. 2010)

While women and girls comprise a small portion of incarcerated offenders, their crimes are less serious in nature when compared to their male counterparts. However, female offenders are more criminalized than male offenders for the same offenses, often due to the patriarchal foundation of the criminal justice system (Estrada and Nilsson 2012). This also has implications for the aging population. A view of trajectories over the life course spotlights the vast range of events and turning points as one ages.

An understanding of the life course is important to this discourse, as it describes the expected events a person should take as a particular gender and at a certain age, albeit reinforced by societal standards (Whitbourne & Bookwala 2015; Cruikshank 2013). In other words, aging and gender are performed, social constructs (Britton 2011; Cruikshank 2013; Butler 2004; West & Zimmerman 1987). Throughout the life course, females are faced with inequalities in education, salary, healthcare, social hierarchy, recreation, and a number of other areas. As a female ages, these inequities are intensified (Hooyman 2015; Slevin 2015; Calstani 2010). Unfortunately, female inmates across age groups bear the brunt of gender inequities. The stigma of prison added to chauvinism and ageism produce an environment that is more than taxing. The environment can, ultimately, mean life or death for an aging female inmate.

Making gender a theorized phenomenon allows researchers to more fully understand why gender differences occur in the context of criminal behavior and why this is a significant event of concern. An understanding of the divergent paths to criminality between males and females has direct impact on public policy. Moreover, “[g]irls’ pathways into crime, even into violence, are affected by the gendered nature of their environments and particularly their experiences as marginalized girls in communities racked by poverty” (Chesney-Lind and Pasko 2004). Troubles and difficulties for girls pave the way for crimes through adulthood. Programs and policies must be examined and incorporated, not simply as an aside to social cohesion but also as a means of incorporating gender responsive pathways to desistance.

Researchers who notice effects of gender difference often include gender as a variable in analyses to determine significance or give a passing thought to the ways that females respond to intervention, aging, and a host of other factors. However, doing so neglects the unique ways that males and females process stimuli and why these differences are meaningful. Making gender a

theorized phenomenon allows researchers to more fully understand why gender differences occur and why this is a significant event of concern. This framework ultimately prevents policymakers from creating policies and programs that are designed to aid in the aging process for males and forcing those same policies and programs onto females. The needs of aging females are not identical to those of their male counterparts (Calasanti 2010; Williams & Rikard 2004).

Programs and policies must be examined and incorporated at the prison level, not simply for prison management. This should emulate females' patterns within the life course. Thus, gender responsiveness considers gender when developing policies and/or programs.

According to Cruickshank (2013), women's studies have also neglected the aging process. Due to overwhelming inequalities, such as reproductive rights, economic and workplace disparity, and violence against women, feminists have lost focus when it comes to those women in later life (Cruickshank 2013). While feminist theories have saturated other disciplines, gerontology has not benefited from a feminist influence. Aging may not have received the attention it deserves, because, in some instances, studying aging brings in to question the researcher's own mortality (Cruickshank 2013). While this oversight may prove to be incidental or has not previously been possible logistically, the ramifications of such an act are disastrous to an already forgotten group of women.

Park (2013) notes that older women choose when to be visible and should not choose to do so in taking a back seat to the concerns of other people or other societal issues. While this may hold true within contemporary society, visibility is not a choice within prisons. Females, in general, have been identified as the "forgotten offenders" due to the lack of attention given to their unique needs when compared to males (Chesney-Lind 2002; 1998). When age is added to

the equation, older female inmates are invisible as it relates to their needs and concerns during the aging process.

With clear impacts on prison policy and planning, the results will encourage the creation and/or revision of policies relative to the treatment of aging inmates and associated prison management. As aging is a heterogeneous phenomenon, the current state of theoretical development lacks the depth to provide adequate guidance for prison planning. Programs targeting the aging process and health education are invaluable to the prison population. As a few states do not have an emerging population of aging inmates, implementation of such programs should be done in states where aging inmates are a concern. By providing an integrated approach to theory and bridging the gap between theory and application, it is my assertion that the discourse on aging and the American inmate will benefit from a more succinct body of knowledge. This will not only impact the theoretical perspective in corrections but will also provide a beginning to the dialogue of public Sociology as it relates to the aging prison population.

CHAPTER III

METHODOLOGY

The methodology for this study incorporated a mixed methods approach to provide a more holistic perspective of the conditions facing the U.S. aging inmate population. A mixed methods approach is not unique. However, the use of mixed methods in this analysis is unique for explaining the factors which contribute to aging inmate growth and the essentials available to aid aging inmates with their transition into old age. This analysis utilized an explanatory mixed methods design. According to Baran and Jones (2020), this method is appropriate when trends and relationships are assessed via quantitative data and needs to provide an explanation of trends. Using theory to guide analysis is key. To test current assumptions found in literature, methodological complementarity (Baran & Jones 2020; Lange 2013) is incorporated to utilize various methods and allow for more vigorous analyses. Using methodological complementarity, quantitative and qualitative approaches are implemented in this study to allow for a more robust examination into U.S. aging inmate growth in the 21st century, as well as the associated prison management used in confinement and care of the proportion of aged inmates of the total U.S. prison population.

First, a longitudinal analysis is employed to uncover more concrete evidence in support of an explanation for why America's prisons are graying. It also provides a view of the various criminal justice legislations and the impact it makes in a correctional setting. Due to these objectives, restricted data spanning 13 years from 2000 through 2012 from the National Institute of Justice's National Corrections Reporting Program (NCRP) will be utilized within these analyses (DOJ 2014). NCRP data (DOJ 2014) contain offender-level characteristics inclusive of,

but not limited to, prisoner custody, admission, and release (inclusive of prisoners released with community supervision). It is appropriate to complete the quantitative analysis first because the trends affecting the proportion of aging inmates naturally occur prior to an examination of how prisons are managing the aging process itself.

Proposed variables for this analysis were guided by an integration of selected criminological perspectives and aging & the life course. These variables can be found below in Table 1. The variables chosen and created for this model are exogenous. In other words, the variables relate to or are developed from external factors ultimately affecting the model used in this analysis. This is important to understand as this state prevents the creation of a conceptual model. In turn, macro-level analyses utilizing prison level data have rarely been used in current literature. To better explain trends, factors influencing aging inmate growth, and existing structure of prison policies and programs, I have created a tiered analysis consisting of 3 major parts: Descriptive Statistics, Logistic Regression, and a Case Study of Prison Programs and Policies.

Table 1: Variables Derived from Theory

Variable	Genre	Theory
Proportion Aged Inmates in Total Population (Outcome Variable)	Criminology Aging and the Life Course	<i>Convergence of Trends</i> (Rikard & Rosenberg 2007) <i>Malign Neglect</i> (Aday & Farney 2014; Williams & Rikard 2004) <i>Aging Inmate Typology</i> (Aday 2003) <i>Social Roles & Performativity</i> (Cruikshank 2013; Britton 2011; Butler 2004; West & Zimmerman 1987) <i>Aging and the Life Course</i> (Giordano 2010; Block et al. 2010) <i>Social Inequalities</i> (Hooyman 2015; Slevin 2015; Calastani 2010; Chesney-Lind & Pasko 2004)
Race White (Referent) Black Other	Criminology Aging and the Life Course	<i>Mass Incarceration</i> (Pager 2007; Western 2006; Pettit & Western 2004) <i>Aging and the Life Course</i> (Pettit & Western 2004)
Region Midwest Northeast South West (Referent) BOP and Shared Custody	Criminology Condition of Confinement	<i>Region and Arrest/Offense Type</i> (Beck & Blumstein 2017; Blumstein 1993; Hawkins & Hardy 1989; Christianson 1981); <i>Socio-political environment of incarceration in sunbelt states</i> (Campbell, Vogel, & Williams 2015); <i>Symbolic Assailants</i> (Campbell, Vogel, & Williams 2015; Skolnick 1966); <i>Quadrants</i> (Beck & Blumstein 2017; Sorenson, Hope, & Stemen 2003)
Offense Type Property Drug Violent Parole/Probation Habitual Immigration Other Offenses (Referent)	Criminology Aging and the Life Course	<i>Typology of Aging Inmates</i> (Aday & Farney 2014; Williams & Rikard 2004; Aday 2003) <i>Females in the Life Course</i> (Block, et al. 2010; Giordano 2010)
Aday's Typology Recidivism Lifer First Time Offender	Criminology	<i>Typology of Aging Inmates</i> (Aday & Farney 2014; Williams & Rikard 2004; Aday 2003)

Descriptive Statistics

The variables in Table 2 were used to examine macro-level phenomena to provide a picturesque view of what contributes to aging inmate population growth. Descriptive statistics were compiled to show what factors and/or trends contribute to the increase in aging inmates. It was expected that the following factors significantly contribute to aging inmate population growth: race, region, variables from Aday's typology (recidivism, lifer, first time offender), and offense types.

Age of offender was calculated by subtracting the inmate's birthdate from the date of prison admission. Age of inmates per year was calculated to determine which cases to include in the annual analyses. For female inmates, age 45 was used as the lower limit for aging during each year of the 13-year dataset (Aday & Farney 2014; Williams & Rikard 2004). Age 50 was used as the lower limit for aging male inmates (Rikard & Rosenberg 2007; Williams & Rikard 2004; Aday 2005; Aday 2003; NIC Videoconference 2001). For privacy concerns, the dataset contained only the month and year for all dates. As a result, age was approximated using the month and year only.

NCRP's data defined race as follows: 1=White, 2=Black, 3=American Indian/Alaska Native, 4=Asian, 5=Native Hawaiian/Pacific Islander, 6=Other, 7=Multiracial, 9=Unknown. Hispanic was not used in this analysis because it is treated as an ethnicity within NCRP's data. There is no indication of how Hispanic inmates are identified simultaneously within the categories of race. All above-mentioned categories of race were included in descriptive terms to better understand the demographics of aging inmates.

Table 2: Variables for Analysis

Variable Label	Explanation of Values	
	0	1
<i>Demographics</i>		
Aging Male Inmates	No	Yes
Aging Female Inmates	No	Yes
<i>Race*</i>		
White (Referent)	No	Yes
Black	No	Yes
Other	No	Yes (American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, Other, Multiracial)
<i>Condition of Confinement</i>		
<i>Region</i>		
Midwest	All Other Regions, including West	Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, Wisconsin, North Dakota, Illinois
Northeast	All Other Regions, including West	Connecticut, Massachusetts, New Hampshire, New Jersey, Maine, New York, Pennsylvania, Rhode Island, Delaware, Maryland, Vermont
South	All Other Regions, including West	Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, Florida, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
West (Referent)	All Other Regions	Alaska, Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah, Hawaii, Washington, Montana, Wyoming
BOP & Shared Custody	All Other Regions, including West	Federal and Combination of Federal & State

Table 2: Variables for Analysis cont'd

Variable Label	Explanation of Values	
	0	1
<i>Criminal Justice History</i>		
<i>Offense Type**</i>		
All Other Offenses (Referent)	No	Yes
Property	No	Yes
Drug	No	Yes
Violent	No	Yes
Parole or Probation Violation	No	Yes
Habitual Offender	No	Yes
Immigration Violation	No	Yes
<i>Variables from Aday's Typology (2003)</i>		
Recidivism	No	Yes
Lifer	No	Yes (includes death row)
First Time Offender (Referent)	No	Yes

*Hispanic inmates were not included in this variable, because the NCRP data included Hispanic as an ethnicity without an explanation of which inmates fall under Black, White, or Other as their race.

**See Appendix A for an explanation of which offenses fall into this category.

The variables were coded as White, Black, and Other. Other includes American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, Other, and Multiracial. The referent used for this analysis was White. As a result, White will not be included within the regression model as an independent variable (Hardy 1993).

Region is also explored regarding where an inmate is housed after conviction. Pursuant to existing literature, region has been treated as quadrant: Midwest, Northeast, South, and West (Beck & Blumstein 2017; Sorenson, Hope, & Stemen 2003). In addition to the quadrant, I have added a variable to account for federal and shared jurisdiction of confinement (BOP & Shared Custody). This BOP_Shared Custody variable pertains only to inmates housed in state custody for BOP or shared (between state & BOP) convictions. The variables have been coded according to Table 2. The referent used for this analysis was West. As a result, West will not be included within the regression model as an independent variable (Hardy 1993).

Recidivist, Lifer, and First Time Offender are variables taken from Aday's typology (2003). For this analysis, the following strategy was employed. Recidivist is a dummy variable created using the existing variable Prior_Prison_Time with a yes (1) or no (0) value. Lifer is a dummy variable created using the existing variable Sentence_Length to determine whether the length of sentence(s) is applicable. The code for Lifer is represented by 1 = yes and 0 = no. First Time Offender is a variable created using Prior_Felony and Prior_Prison_Time with a value of yes (1) or no (0). The referent used for this analysis was First Time Offender. As a result, First Time Offender will not be included within the regression model as an independent variable (Hardy 1993).

Type of Offense is a variable created using BJS_Offense_1's designations within the NCRP data. This variable represents an inmate's offense associated with the longest sentence

imposed. To avoid skewing the data for this macro-level analysis, lesser offenses included within BJS_Offense_2 and BJS_Offense_3 were removed from consideration. Type of Offense includes the following measures: property, drug, violent, parole/probation violation, habitual offender, immigration violation, and other offenses. Most of the crimes within the BJS description were included within this variable. To view the included offenses, refer to Table 15. The referent used for this analysis was other offenses. As a result, other offenses will not be included within the regression model as an independent variable (Hardy 1993).

Logistic Regression

Data on aging prisoners from 2000 to 2012 within U.S. prisons were used to determine influences of race, region, offense type, recidivism, lifer status, and first time offender status on the growth of the aging inmate population. Using macro-level variables, multivariate analysis was performed to determine distinct factors contributing to aging inmate population growth. This method is used, in part, because it allows for the analysis of more than one independent variable within the same equation (Treiman 2009). By doing so, a more robust explanation of the effects on the dependent variable can be assessed. Using multiple independent variables in the model can isolate the relationship between one independent variable and the dependent variable without the undue influence from the other independent variables in the model (Treiman 2009).

The longitudinal dataset from NCRP allowed for manipulation of data into a more useful form relevant to the current analysis. To examine growth pathways in a longitudinal analysis, STATA 16 was employed. Using the logit command, the following tests were assessed: method of fit, coefficients, standard error, and z test. The method of fit for each model has been determined by using McFadden's R^2 /Pseudo R^2 , and standard error has been estimated as the

standard deviation of the distribution (Treiman 2009). Variables listed in Table 1 informed the hypotheses outlined in Chapter 2 of this dissertation.

The logit command was used on two outcome variables: Proportion of Aged Inmates in Total Male Inmate Population and Proportion of Aged Inmates in Total Female Inmate Populations. The outcome variables are both dichotomous, which makes logistic regression the optimal method for this analysis (Acock 2014; Treiman 2009; Long & Freese 1997). Multivariate analysis was performed to account for the effects of 14 independent variables (Table 2) on both outcomes in 2001, 2006, and 2012. This method was chosen to allow for analysis of multiple independent variables from an administrative data set. Administrative data, according to Connelly, et al. (2016), is drawn from the operation of administrative systems of a governmental agency. They also contend that researchers typically analyze the whole population (N = all) when studying this sort of data. Following this line of thought, I have designed the aforementioned models to use the entire proportion of aged inmates out of all inmates in 2001, 2006, and 2012. While this provides an advantage in the analysis of a longitudinal data, having a large set of data can pose other concerns of statistical significance. Examining data in 3 separate years decreased the likelihood that false statistical significance would occur and simultaneously provided a framework to show growth over a 13-year period.

Case Study of Prison Programs and Policies

Third, primary analyses of the current prison policies and/or programs focusing on aging inmates within federal and state institutions were undertaken to better understand whether prisons are positioned to address the needs of the increasingly older inmate population. It will also serve as the framework to impact policy changes and development. This analysis was done to replicate the previous study completed by Williams & Rikard (2004). Williams & Rikard

(2004) conducted a phone survey of all DOCs, as well as the federal BOP, to determine which facilities had programs for aging female inmates. In distinguishing my study and extending the analysis done by Williams & Rikard (2004), online and phone surveys were conducted to determine whether any institutions had programs and/or policies for both aging male inmates and aging female inmates. No research, to date, has been published conducting this analysis.

An online survey (Appendix C), along with the IRB-approved informed consent, was conducted and submitted to each state prison and/or Department of Corrections, as well as the federal BOP (n=51). Qualtrics was the software used to disseminate and analyze the qualitative data obtained from the DOCs. This, along with an internet search of prison programs and policies, was the avenue to obtain specific details about policies and programs for aging and elderly inmates. Prior to submission of the surveys, phone calls were made to all state DOCs and the BOP to ensure that the correct contact person received this survey. Despite the best efforts, many calls went unanswered and messages unreturned. A few states would not complete the survey without submission of the research proposal to their respective, internal research boards. For those states, I requested that a Non-Disclosure Agreement (NDA) be signed to protect the intellectual property within the survey. Only one state declined the NDA: Florida. Data regarding their policies for aging inmates were found on their website and is the sole source of data from Florida. In addition, a few state DOCs charged substantial fees to submit research proposals to their internal review board. These states were dropped from data collection. For purposes of this study, 20 DOCs and the BOP are included (n= 21). This yields a 42% response rate.

Baran & Jones (2020) stated that a case study is “an indepth analysis of one or more events, settings, programs, groups, or other ‘bounded systems’” (268). A multisite case study was undertaken to update or create theory (Baran & Jones 2020). Exploring this qualitative data,

there were four distinct categories apparent: prisons with policies, prisons with programs for males, prisons with gender responsive programs⁵, and the Federal BOP. A snapshot of each category of prisons has been compiled in the form of a case study highlighting particular prison policies and programs. A case study is appropriate in this analysis “because it draws attention to the question of what specifically can be learned from the single case” (Stake 1994:236). For each of the four categories, key facilities were chosen and discussed in detail as to policies and/or programs available for aging inmates: Florida, Connecticut, Minnesota, Nevada, Ohio, Virginia, and the BOP. Most prisons have medical options for aging inmates, but these options are often used as a last resort. The purpose of this case study is to provide a bird’s eye view on the operation of prison facilities pertaining to older inmates, excluding medical care.

⁵ Gender responsive programs are those programs created specific to the needs of women.

CHAPTER IV

QUANTITATIVE ANALYSIS

This analysis examines the 13-year period of data over three separate years: 2001, 2006, and 2012. First, descriptive statistics were compiled to depict each variable to be used in the subsequent analysis. A list and description of the variables can be found in Table 2. Two outcomes are used for male and female inmates over the three years that are the focus of this analysis: 1) Proportion Aged Males of the Total Male Inmate Population and 2) Proportion Aged Females of the Total Female Inmate Population. Additionally, correlation matrices are discussed to examine the correlation of each variable with the other variables in this analysis.⁶ Since this analysis focuses on gender, the overall model examines how each of the independent variables influences aging inmate population growth within gender subgroups in 2001, 2006, and 2012. These 3 timepoints were chosen to examine patterns over time with 2001 representing the beginning of the timepoint, 2006 representing the midpoint, and 2012 representing the end.

Descriptive Statistics

Characteristics of aging inmates have been explored and discussed. It was expected that the following factors will significantly contribute to aging inmate population growth annually: race, region, recidivism status, lifer status, first time offender status, and offense types. Descriptive statistics were compiled by gender for years 2001, 2006, and 2012. The mean, standard deviation, and range were noted in Tables 3, 4, and 5, respectively, where N is represented for the overall prison population and n is represented for the proportion of aging

⁶ Correlation Matrices and subsequent discussion can be found in tables 6-11.

male inmates and the proportion of aging female inmates in each respective year. In addition, an in-depth examination of descriptive statistics was undertaken to provide a holistic perspective of the data regarding the hypotheses. This also provided a better understanding of how the addition of Hypothesis 2d adds to the variables used in Aday's typology (2003) over time. This discussion has also examined whether the variables in this typology remains relevant for male inmates and whether they are applicable to female inmates.

Descriptive Statistics for 2001

In 2001, the proportion of aged male inmates totaled 200,361 out of the total inmate population of 5,586,953 and the proportion of aged female inmates totaled 13,377 out of the total inmate population of 664,089. *Race* showed similar trends for male and female inmates with Black women (50%) representing a slightly higher percent of aging inmates, as indicated in Table 3. White females comprise 45% of aged female inmates for males, White is represented by 48% and Black by 45%. Other races comprise approximately 5% of aging male and 4% of aging female inmates.

Region has also been defined previously in Table 2. In 2001, both aging male and female inmates are confined more predominately in the South region of the U.S. Aging male inmates have a mean of 0.60 and, aging female inmates have a mean of 0.64. Moreover, sixty percent of male inmates and 64 percent of female inmates were incarcerated in the South compared to all other regions. This gives credence to extant literature that indicates the majority of inmates are confined within southern states. Also, the prison boom primarily affected southern states (Rikard & Rosenberg 2007).

Table 3: Descriptive Statistics for 2001

	<i>Male Inmates Aged 50 and Over</i> n = 200,361			<i>Female Inmates Aged 45 and Older</i> n = 13,377		
Variable	Mean	Std Deviation	Range	Mean	Std Deviation	Range
<i>Demographics</i>						
Proportion Aged Inmates in Total Prison Population	0.04	0.19	0 – 1	0.02	0.14	0 – 1
<i>Race</i>						
White (Referent)	0.48	0.50	0 – 1	0.45	0.50	0 – 1
Black	0.45	0.50	0 – 1	0.50	0.50	0 – 1
Other	0.05	0.23	0 – 1	0.04	0.20	0 – 1
<i>Condition of Confinement</i>						
<i>Region</i>						
Midwest	0.11	0.31	0 – 1	0.09	0.29	0 – 1
Northeast	0.07	0.26	0 – 1	0.06	0.23	0 – 1
South	0.60	0.49	0 – 1	0.64	0.48	0 – 1
West (Referent)	0.13	0.34	0 – 1	0.12	0.32	0 – 1
BOP and Shared Custody	0.00	0.01	0 – 1	0.00	0.01	0 – 1
<i>Criminal Justice History</i>						
<i>Offense Type</i>						
Property	0.25	0.43	0 – 1	0.37	0.48	0 – 1
Drug	0.18	0.38	0 – 1	0.27	0.44	0 – 1
Violent	0.43	0.49	0 – 1	0.26	0.44	0 – 1
Parole or Probation Violation	0.00	0.03	0 – 1	0.00	0.02	0 – 1
Habitual Offender	0.00	0.05	0 – 1	0.00	0.03	0 – 1
Immigration Violation	0.00	0.00	0 – 1	0.00	0.00	0 – 1
Other Offenses (Referent)	0.14	0.35	0 – 1	0.10	0.30	0 – 1
<i>Variables from Aday's Typology (2003)</i>						
Recidivism	0.27	0.44	0 – 1	0.20	0.40	0 – 1
Lifer	0.10	0.31	0 – 1	0.07	0.25	0 – 1
First Time Offender (Referent)	0.53	0.50	0 – 1	0.66	0.47	0 – 1

In relation to Aday's (2003) typology of the aging inmate, these results show among males in 2001, approximately 27% were classified as recidivists or habitual offenders. Comparatively, 20% of female inmates were similarly classified. About 10% of males and 7% of females were classified as *lifers*. These numbers are smaller than in Aday's typology. Consistent with Aday though, roughly 53% of aged male inmates and 66% of aged female inmates found to be *first time offenders*. Given that first time offenders are those offenders that were admitted to prison at older ages, this also lends credence to Luallen & Kling (2014)'s findings that age at prison admission is the most important factor in a subsequent growth in an aged inmate population. Examining the previous three variables from Aday's (2003) typology, his assertions are confirmed for both male and female inmates. Both groups reflect similar proportions of recidivists, lifers, and first time offender status, although more males than females are lifers, and there are fewer recidivists among females than males.

I have added to the variables in Aday's typology by including an additional variable: *Offense Type*. I include this since the modal offense for women and men may differ. Table 3 provides descriptive statistics in 2001 for both male and female inmates for offense types. As expected, males were nearly twice as likely as female inmates to have been convicted of violent offenses, at 43 percent for males and 26 percent for females. About 25% of males were incarcerated for property offenses and 18% for drug offenses. In comparison, about 37% of female inmates were incarcerated for property offenses and 27 % for drug offenses. This supports Hypothesis 2d, as female inmates are more likely to have been convicted of property and drug offenses than their male counterparts. An interesting finding resulted from this analysis concerning other offenses. Among female inmates in 2001, 30% were incarcerated for other offenses, while this was quite a bit lower among males at 14%. These offenses were mainly

white collar offenses and victimless crimes, such as public order offenses, bribery, embezzlement, etc. This is also congruent with extant literature that contends that most female inmates were convicted of non-violent offenses.

Descriptive Statistics for 2006

In 2006, the proportion of aged male inmates totaled 606,693 out of the total inmate population of 5,993,285 and the proportion of aged female inmates totaled 52,374 out of the total inmate population of 703,086. The proportion of aged inmates tripled within 5 years from 2001 to 2006 for males and increased by four times for females. This is important to note as it shows hypothesized growth in the aging inmate population.

As seen in Table 4, White women comprise 47% of the proportion of aged female inmates, where Black women were 46%. About 46% of male inmates are Black and 46% are White. Other races comprise approximately 7% and 6% of the proportion aged inmates for males and females, respectively.

In 2006, both male and female inmates are confined predominately to the Southern region of the U.S. In fact, 48% of males and 50% of females are confined in the South. This is a relative decrease for confinement in the South when compared to 60 percent for males and 64% for females in 2001 (Table 3), representing a 12% decrease for aging male inmates and a 14% decrease for aging female inmates. This confirms what extant literature reports for a majority of inmates being confined within southern states (Rikard & Rosenberg 2007). Midwest and Northeast regions of the U.S. hold 13% and 8% of male inmates, respectively. About 13% and 7% of female inmates are held in the Midwest and the Northeast, respectively. The Federal BOP, as well as those held in shared custody with states and BOP, had miniscule numbers of aged inmates comprising less than 1 percent of male and female inmates.

Table 4: Descriptive Statistics for 2006

	<i>Male Inmates Aged 50 and Older</i> n = 606,693			<i>Female Inmates Aged 45 and Older</i> n = 52,374		
Variable	Mean	Std Deviation	Range	Mean	Std Deviation	Range
<i>Demographics</i>						
Proportion Aged Inmates in Total Prison Population	0.10	0.30	0 – 1	0.07	0.26	0 – 1
<i>Race</i>						
White (Referent)	0.46	0.50	0 – 1	0.47	0.50	0 – 1
Black	0.46	0.50	0 – 1	0.46	0.50	0 – 1
Other	0.07	0.25	0 – 1	0.06	0.24	0 – 1
<i>Condition of Confinement</i>						
<i>Region</i>						
Midwest	0.13	0.33	0 – 1	0.13	0.34	0 – 1
Northeast	0.08	0.28	0 – 1	0.07	0.25	0 – 1
South	0.48	0.50	0 – 1	0.50	0.50	0 – 1
West (Referent)	0.18	0.38	0 – 1	0.17	0.38	0 – 1
BOP and Shared Custody	0.00	0.02	0 – 1	0.00	0.02	0 – 1
<i>Criminal Justice History</i>						
<i>Offense Type</i>						
Property	0.32	0.47	0 – 1	0.37	0.48	0 – 1
Drug	0.24	0.43	0 – 1	0.34	0.47	0 – 1
Violent	0.34	0.47	0 – 1	0.17	0.38	0 – 1
Parole or Probation Violation	0.00	0.04	0 – 1	0.00	0.03	0 – 1
Habitual Offender	0.00	0.05	0 – 1	0.00	0.03	0 – 1
Immigration Violation	0.00	0.00	0 – 1	0.00	0.00	0 – 1
Other Offenses (Referent)	0.15	0.35	0 – 1	0.11	0.31	0 – 1
<i>Variables from Aday's Typology (2003)</i>						
Recidivism	0.28	0.45	0 – 1	0.21	0.40	0 – 1
Lifer	0.06	0.25	0 – 1	0.03	0.17	0 – 1
First Time Offender (Referent)	0.47	0.50	0 – 1	0.58	0.49	0 – 1

In looking at the variables from Aday's (2003) typology of the aging inmate, the categories of *Recidivism*, *Lifer*, and *First Time Offender* were examined. For male inmates in 2006, approximately 28% were classified as recidivists or habitual offenders. Comparatively, 21% of female inmates were similarly categorized. However, 6 and 3 percent of aged males and aged females were classified as *lifera*, constituting a small proportion of the overall inmate population. This statistic led to questions regarding Aday's (2003) assertions. His typology was designed, in part, by a study with a sample size of 288 prisoners (Ann Goetting 1983). At that time, the total population of inmates aged 55 or older was 4% in federal prisons and 2% in state prisons (Goetting 1983). She further stipulated that approximately 2.5% of all inmates were lifers, which would decrease substantially when examining the proportion of aged inmates. Given the current number of aging inmates in state and federal prisons (approximately 30%), it is plausible to expect a much higher rate of lifers. With roughly 47% of aged male inmates and 58% of aged female inmates found to be *first time offenders*, that category of Aday's (2003) typology is relevant for understanding aged inmates. This also gives support to Luallen & Kling's (2014) findings that age at prison admission is the most important factor in a subsequent growth in an aged inmate population. Examining the three variables from Aday's (2003) typology, these findings are in keeping with his categories generally for males and females.

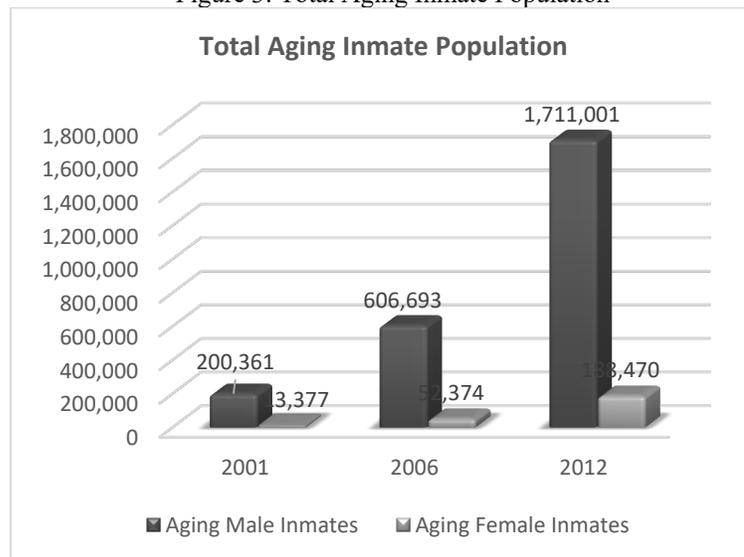
However, I have now expanded the core variables in Aday's (2003) typology to further include a previously overlooked but potentially important variable in considering inmate gender and the aging inmate population. This is *offense type*. Table 4 provides the descriptive statistics for both male and female inmates in 2006. As expected, males were twice as likely as female inmates to have been convicted of violent offenses, with 34% of males and only 17% of females. Furthermore, 32% of aging male inmates have been convicted of property offenses and 24%

have been convicted of drug offenses. In comparison, 37% of aged female inmates have been convicted of property offenses and 34% have been convicted of drug offenses. These percentages support Hypothesis 2d, as female inmates are more likely to have been convicted of property and drug offenses than their male counterparts. An interesting finding resulted from this analysis concerning other offenses. Finally, 11% of female inmates in 2006 were incarcerated for other offenses while 15% of males were incarcerated for them. These numbers are a mere fraction of the same category in 2001.

Descriptive Statistics for 2012

In 2012, the proportion of aged male inmates totaled 1,711,001 out of the total inmate population of 7,097,593. The proportion of aged female inmates totaled 188,470 out of the total inmate population of 839,182. Notably, male inmates increased by 28% and the female inmates increased by 36% from 2006 to 2012. This is important to note, as it confirms growth in the aging inmate population (Figure 3).

Figure 3: Total Aging Inmate Population



Data from DOJ. BJS. 2014. National Corrections Reporting Program, 2000-2012.

In terms of the racial composition of inmates in 2012, White women comprise 50% of the of the proportion of aged female inmates, where Black women were 41%. For males, the mean for both Black and White was 0.44 and 0.45, respectively. Other races comprise approximately 8% and 7% of the proportion aged males and females, respectively.

In 2012, both male and female inmates are confined more predominately in the Southern region of the U.S. Male inmates and Female inmates were 43% and 44%, respectively, more likely to be confined in the South when compared to all other regions. This is a slight decrease of the confinement of inmates in the South when compared to 2006. This also confirms what extant literature reports for a majority of inmates being confined within southern states (Rikard & Rosenberg 2007). The Western region has a mean of 0.19 for both males and females, remaining consistent with 2006. The BOP, as well as shared custody with states and BOP, had miniscule numbers of aged inmates, represented by less than one percent for both male and female inmates.

In looking at the core variables in Aday's (2003) typology of the aging inmate, those categorized as *Recidivists*, *Lifers*, and *First Time Offender* were examined. For male inmates in 2012, approximately 30% were classified as *Recidivists* or Habitual Offenders. Comparatively, 23% of female inmates fared similarly. This represents an increase from 2001 to 2012. With a mean of 0.04 and 0.01, aged males and aged females classified as *lifers* were a small representation of the proportion of aged inmates. *First time offenders* represent 43% of aged male inmates and 52% of aged female inmates in 2012. This shows a slight decrease from 2006. However, the proportions in Table 5 further confirm that age at prison admission is the most important factor in a subsequent growth in the proportion of aged inmates (Luallen & Kling 2014). Examining the previous three variables from Aday's (2003) typology, I find that both groups have similar levels of recidivism and first time offender status.

Table 5: Descriptive Statistics for 2012

Variable	<i>Male Inmates Aged 50 and Older</i> n = 1,711,001			<i>Female Inmates Aged 45 and Older</i> n = 188,470		
	Mean	Std Deviation	Range	Mean	Std Deviation	Range
<i>Demographics</i>						
<i>Race</i>						
White (Referent)	0.45	0.50	0 – 1	0.50	0.50	0 – 1
Black	0.44	0.50	0 – 1	0.41	0.49	0 – 1
Other	0.08	0.27	0 – 1	0.07	0.26	0 – 1
<i>Condition of Confinement</i>						
<i>Region</i>						
Midwest	0.13	0.34	0 – 1	0.15	0.36	0 – 1
Northeast	0.09	0.29	0 – 1	0.07	0.26	0 – 1
South	0.43	0.49	0 – 1	0.44	0.50	0 – 1
West	0.19	0.40	0 – 1	0.19	0.39	0 – 1
BOP and Shared Custody	0.00	0.02	0 – 1	0.00	0.02	0 – 1
<i>Criminal Justice History</i>						
<i>Offense Type</i>						
Property	0.28	0.45	0 – 1	0.35	0.48	0 – 1
Drug	0.26	0.44	0 – 1	0.37	0.48	0 – 1
Violent	0.29	0.45	0 – 1	0.13	0.34	0 – 1
Parole or Probation Violation	0.00	0.06	0 – 1	0.00	0.06	0 – 1
Habitual Offender	0.00	0.06	0 – 1	0.00	0.04	0 – 1
Immigration Violation	0.00	0.00	0 – 1	0.00	0.00	0 – 1
Other Offenses (Referent)	0.16	0.37	0 – 1	0.13	0.34	0 – 1
<i>Variables from Aday's Typology (2003)</i>						
Recidivism	0.30	0.46	0 – 1	0.23	0.42	0 – 1
Lifer	0.04	0.20	0 – 1	0.01	0.12	0 – 1
First Time Offender (Referent)	0.43	0.50	0 – 1	0.52	0.50	0 – 1

With such small numbers of inmates with lifer status, it would be inappropriate to assume that the category is as relevant in 2012.

By adding a focus on offense type to factors that may influence the aging inmate population (to be tested next in multivariate logistic regression analyses), I find in Table 5 that as hypothesized, males were more than twice as likely (29%) as females to have been convicted of violent offenses (13%). This also shows a dip in the prevalence of violent offenses for both males and females since 2006. Male inmates were convicted of 28% property offenses and 26% drug offenses. In comparison, female inmates were convicted of 35% property offenses and 37% drug offenses. Again, the results in 2012 support Hypothesis 2d, as female inmates are more likely to have been convicted of property and drug offenses than their male counterparts.

Correlation Coefficients

It was expected that the independent variables would not only have a relationship with the outcomes of aging male inmates and of aging female inmates, but they will also have a relationship among one another. Because the correlation coefficient calculates the strength of a relationship, I decided to run correlation matrices using Stata 16. The matrices that were run are specific to both outcomes in years 2001, 2006, and 2012 (Tables 7-12). Significance was determined by the values having an alpha (α) of less than or equal to .05 (Treiman 2009). Any α above .05 was deemed non-significant. Evaluating the correlation coefficients was done by using the following criteria. 0.1 to 0.3 exhibits weak correlation, 0.31 to 0.5 has low correlation, 0.5 to 0.7 is moderately correlated, and 0.71 to 1.0 is highly correlated (Treiman 2009).

Table 6: Correlation Coefficients for Aging Male Inmates (AMI) in 2001

		<i>Aging Male Inmates 2001</i> (N = 5,586,953)																	
Variable	AMI 2001	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
AMI 2001	1.00																		
White	0.03 0.00	1.00																	
Black	0.02 0.00	-0.73 0.00	1.00																
Other	-0.04 0.00	-0.30 0.00	-0.29 0.00	1.00															
Midwest	-0.03 0.00	0.09 0.00	-0.00 0.00	-0.11 0.00	1.00														
Northeast	-0.02 0.00	-0.06 0.00	0.08 0.00	-0.05 0.00	-0.14 0.00	1.00													
South	0.09 0.00	0.03 0.00	0.11 0.00	-0.23 0.00	-0.34 0.00	-0.27 0.00	1.00												
West	-0.03 0.00	-0.03 0.00	-0.17 0.00	0.31 0.00	-0.21 0.00	-0.17 0.00	-0.40 0.00	1.00											
BOP & Shared Custody	-0.00 0.00	-0.01 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	-0.01 0.00	1.00										
Property	-0.02 0.00	0.09 0.00	-0.06 0.00	-0.03 0.00	0.01 0.00	-0.08 0.00	0.06 0.00	-0.02 0.00	-0.01 0.00	1.00									
Drug	-0.04 0.00	-0.09 0.00	0.10 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.02 0.00	-0.03 0.00	-0.01 0.00	-0.40 0.00	1.00								
Violent	0.05 0.00	-0.07 0.00	0.05 0.00	0.03 0.00	-0.01 0.00	0.05 0.00	-0.03 0.00	0.03 0.00	-0.00 0.00	-0.40 0.00	-0.38 0.00	1.00							
Parole & Probation	-0.01 0.00	-0.00 0.03	-0.01 0.00	0.02 0.00	-0.02 0.00	0.08 0.00	-0.05 0.00	0.04 0.00	-0.00 0.00	-0.04 0.00	-0.04 0.00	-0.04 0.00	1.00						

Table 7: Correlation Coefficients for Aging Male Inmates (AMI) in 2001 cont'd

<i>Aging Male Inmates 2001 cont'd</i>																			
Variable	AMI 2001	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
Habitual Offender	0.00 0.00	-0.00 0.00	0.02 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.01 0.00	-0.00 0.01	-0.03 0.00	-0.03 0.00	-0.03 0.00	-0.00 0.00	1.00					
Immigration	-0.00 0.05	-0.00 0.00	-0.00 0.00	0.01 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.00 0.00	-0.00 0.82	-0.00 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.47	-0.00 0.62	1.00				
Other Offenses	0.01 0.00	0.09 0.00	-0.10 0.00	0.01 0.00	0.04 0.00	-0.03 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.25 0.00	-0.24 0.00	-0.25 0.00	-0.03 0.00	-0.02 0.00	-0.00 0.00	1.00			
Recidivism	0.02 0.00	-0.01 0.00	0.08 0.00	-0.10 0.00	0.02 0.00	-0.19 0.00	0.27 0.00	-0.08 0.00	-0.00 0.00	0.09 0.00	0.01 0.00	-0.09 0.00	-0.03 0.00	0.06 0.00	-0.00 0.00	0.00 0.00	1.00		
Lifer	0.11 0.00	-0.01 0.00	0.01 0.00	0.01 0.00	-0.02 0.00	0.03 0.00	-0.01 0.00	0.03 0.00	-0.00 0.02	-0.08 0.00	-0.07 0.00	0.19 0.00	-0.01 0.00	0.00 0.00	-0.00 0.12	-0.05 0.00	-0.04 0.00	1.00	
First Time Offender	0.03 0.00	-0.00 0.00	-0.09 0.00	0.14 0.00	-0.05 0.00	-0.31 0.00	0.06 0.00	0.19 0.00	0.01 0.00	0.03 0.00	-0.00 0.00	0.02 0.00	-0.05 0.00	-0.03 0.00	0.00 0.00	-0.03 0.00	-0.52 0.00	-0.06 0.00	1.00

*Moderately Significant at $\alpha \leq .05$

**Non-significant at $\alpha > .05$

Table 7: Correlation Coefficients for Aging Male Inmates (AMI) in 2006

<i>Aging Male Inmates 2006</i>																			
<i>(N = 5,993,285)</i>																			
Variable	AMI 2006	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
AMI 2006	1.00																		
White	0.03 0.00	1.00																	
Black	0.03 0.00	-0.73 0.00	1.00																
Other	-0.05 0.00	-0.30 0.00	-0.29 0.00	1.00															
Midwest	-0.02 0.00	0.09 0.00	-0.00 0.00	-0.11 0.00	1.00														
Northeast	-0.03 0.00	-0.06 0.00	0.08 0.00	-0.05 0.00	-0.14 0.00	1.00													
South	0.07 0.00	0.03 0.00	0.11 0.00	-0.23 0.00	-0.34 0.00	-0.27 0.00	1.00												
West	-0.02 0.00	-0.03 0.00	-0.17 0.00	0.31 0.00	-0.21 0.00	-0.17 0.00	-0.40 0.00	1.00											
BOP & Shared Custody	-0.00 0.00	-0.01 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	-0.01 0.00	1.00										
Property	-0.01 0.00	0.09 0.00	-0.06 0.00	-0.28 0.00	0.01 0.00	-0.08 0.00	0.06 0.00	-0.02 0.00	-0.01 0.00	1.00									
Drug	-0.02 0.00	-0.09 0.00	0.10 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.02 0.00	-0.03 0.00	-0.01 0.00	-0.40 0.00	1.00								
Violent	0.02 0.00	-0.07 0.00	0.05 0.00	0.03 0.00	-0.01 0.00	0.05 0.00	-0.03 0.00	0.03 0.00	-0.00 0.00	-0.40 0.00	-0.38 0.00	1.00							
Parole & Probation	-0.01 0.00	-0.00 0.03	-0.01 0.00	0.02 0.00	-0.02 0.00	0.08 0.00	-0.05 0.00	0.04 0.00	-0.00 0.00	-0.04 0.00	-0.04 0.00	-0.04 0.00	1.00						
Habitual Offender	0.01 0.00	-0.00 0.00	0.02 0.00	-0.13 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.01 0.00	-0.00 0.01	-0.03 0.00	-0.03 0.00	-0.03 0.00	-0.00 0.00	1.00					

Table 8: Correlation Coefficients for Aging Male Inmates (AMI) in 2006 cont'd

<i>Aging Male Inmates 2006 cont'd</i>																			
Variable	AMI 2006	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
Immigration	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.01 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.00 0.00	-0.00 0.82	-0.00 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.47	-0.00 0.62	1.00				
Other Offenses	0.02 0.00	0.09 0.00	-0.10 0.00	0.01 0.00	0.04 0.00	-0.03 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.25 0.00	-0.24 0.00	-0.25 0.00	-0.03 0.00	-0.02 0.00	-0.00 0.00	1.00			
Recidivism	0.04 0.00	-0.01 0.00	0.08 0.00	-0.10 0.00	0.02 0.00	-0.19 0.00	0.27 0.00	-0.08 0.00	-0.00 0.00	0.09 0.00	0.01 0.00	-0.09 0.00	-0.03 0.00	0.06 0.00	-0.00 0.00	0.00 0.00	1.00		
Lifer	0.09 0.00	-0.01 0.00	0.01 0.00	0.01 0.00	-0.02 0.00	0.03 0.00	-0.01 0.00	0.03 0.00	-0.00 0.02	-0.08 0.00	-0.07 0.00	0.19 0.00	-0.01 0.00	0.00 0.00	-0.00 0.12	-0.05 0.00	-0.04 0.00	1.00	
First Time Offender	0.01 0.00	-0.00 0.00	-0.09 0.00	0.14 0.00	-0.05 0.00	-0.31 0.00	0.06 0.00	0.19 0.00	0.01 0.00	0.03 0.00	-0.00 0.00	0.02 0.00	-0.05 0.00	-0.03 0.00	0.00 0.00	-0.03 0.00	-0.52 0.00	-0.06 0.00	1.00

*Moderately Significant at $\alpha \leq .05$

**Non-significant at $\alpha > .05$

Table 8: Correlation Coefficients for Aging Male Inmates (AMI) in 2012

<i>Aging Male Inmates 2012</i> (N = 7,097,593)																			
Variable	AMI 2012	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
AMI 2012	1.00																		
White	0.04 0.00	1.00																	
Black	0.03 0.00	-0.73 0.00	1.00																
Other	-0.06 0.00	-0.30 0.00	-0.29 0.00	1.00															
Midwest	-0.03 0.00	0.09 0.00	-0.00 0.00	-0.11 0.00	1.00														
Northeast	-0.03 0.00	-0.06 0.00	0.08 0.00	-0.05 0.00	-0.14 0.00	1.00													
South	0.05 0.00	0.03 0.00	0.11 0.00	-0.23 0.00	-0.34 0.00	-0.27 0.00	1.00												
West	-0.01 0.00	-0.03 0.00	-0.17 0.00	0.31 0.00	-0.20 0.00	-0.17 0.00	-0.40 0.00	1.00											
BOP & Shared Custody	-0.00 0.00	-0.01 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	-0.01 0.00	1.00										
Property	-0.01 0.00	0.09 0.00	-0.06 0.00	-0.03 0.00	0.01 0.00	-0.08 0.00	0.06 0.00	-0.02 0.00	-0.01 0.00	1.00									
Drug	-0.01 0.00	-0.09 0.00	0.10 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.02 0.00	-0.03 0.00	-0.01 0.00	-0.40 0.00	1.00								
Violent	-0.01 0.00	-0.07 0.00	0.05 0.00	0.03 0.00	-0.01 0.00	0.05 0.00	-0.03 0.00	0.03 0.00	-0.00 0.00	-0.40 0.00	-	1.00							
Parole & Probation	-0.01 0.00	-0.00 0.03	-0.01 0.00	0.02 0.00	-0.02 0.00	0.08 0.00	-0.05 0.00	0.04 0.00	-0.00 0.00	-0.04 0.00	-	-0.04	1.00						
											0.38 0.00								
											0.04 0.00								

Table 9: Correlation Coefficients for Aging Male Inmates (AMI) in 2012 cont'd

<i>Aging Male Inmates 2012 cont'd</i>																			
Variable	AMI 2012	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
Habitual Offender	0.01 0.00	-0.00 0.00	0.02 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.01 0.00	-0.00 0.01	-0.03 0.00	- 0.03 0.00	-0.03 0.00	-0.00 0.00	1.00					
Immigration	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.01 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.00 0.00	-0.00 0.82	-0.00 0.00	- 0.00 0.00	-0.00 0.00	-0.00 0.47	-0.00 0.62	1.00				
Other Offenses	0.04 0.00	0.09 0.00	-0.10 0.00	0.01 0.00	0.04 0.00	-0.03 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.25 0.00	- 0.24 0.00	-0.25 0.00	-0.03 0.00	-0.02 0.00	-0.00 0.00	1.00			
Recidivism	0.07 0.00	-0.01 0.00	0.08 0.00	-0.10 0.00	0.02 0.00	-0.19 0.00	0.27 0.00	-0.08 0.00	-0.00 0.00	0.09 0.00	0.01 0.00	-0.09 0.00	-0.03 0.00	0.06 0.00	-0.00 0.00	0.00 0.00	1.00		
Lifer	0.07 0.00	-0.01 0.00	0.01 0.00	0.01 0.00	-0.02 0.00	0.03 0.00	-0.01 0.00	0.03 0.00	-0.00 0.02	-0.08 0.00	- 0.07 0.00	.19 0.00	-0.01 0.00	0.00 0.00	-0.00 0.12	-0.05 0.00	-0.04 0.00	1.00	
First Time Offender	-0.02 0.00	-0.00 0.00	-0.09 0.00	0.14 0.00	-0.05 0.00	-0.31 0.00	0.06 0.00	0.19 0.00	0.01 0.00	0.03 0.00	- 0.00 0.00	0.02 0.00	-0.05 0.00	-0.03 0.00	0.00 0.00	-0.03 0.00	-0.52 0.00	- 0.06 0.00	1.00

*Moderately Significant at $\alpha \leq .05$

**Non-significant at $\alpha > .05$

Correlation Coefficients for Aging Male Inmates (AMI)

For aging male inmates in 2001, 2006, and 2012, BOP_Shared Custody and Immigration, Parole_Probation and Immigration, Habitual Offender and Immigration, and Immigration and Lifer were not significant influences on the outcome. Moderate correlation was found, across all years, between Recidivism and First Time Offender with an α value of -0.5158. This indicates that the more likely an inmate is to be a recidivist the less likely that inmate is to be a first time offender. All other relationships have been found to have weak or low correlations (Table 7, 8, and 9). The correlation between White and Black was also deemed to be high with an α value of -0.7264. Moreover, the more likely an inmate is to be a White, the less likely that inmate is to be a Black. All other relationships have been found to have weak correlations.

Correlation Coefficients for Aging Female Inmates (AFI)

For aging male inmates in 2001, 2006, and 2012, BOP_Shared Custody and Immigration, Parole_Probation and Immigration, Habitual Offender and Immigration, and Immigration and Lifer were not significant on the outcome. Moderate correlation was found, across all years, between Recidivism and First Time Offender with an α value of -0.5158. This indicates that the more likely an inmate is to be a recidivist the less likely that inmate is to be a first time offender. All other relationships have been found to have weak or low correlations (Table 10, 11, and 12). The correlation between White and Black was also deemed to be high with an α value of -0.7264. Moreover, the more likely an inmate is to be a White, the less likely that inmate is to be a Black. All other relationships have been found to have weak correlations.

Table 9: Correlation Coefficients for Aging Female Inmates (AFI) in 2001

<i>Aging Female Inmates 2001</i> (N = 664,089)																			
Variable	AFI 2001	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
AFI 2001	1.00																		
White	-0.03 0.00	1.00																	
Black	0.06 0.00	-0.73 0.00	1.00																
Other	-0.03 0.00	-0.30 0.00	-0.29 0.00	1.00															
Midwest	-0.02 0.00	0.09 0.00	-0.00 0.00	-0.11 0.00	1.00														
Northeast	-0.01 0.00	-0.06 0.00	0.08 0.00	-0.05 0.00	-0.14 0.00	1.00													
South	0.06 0.00	0.03 0.00	0.11 0.00	-0.23 0.00	-0.34 0.00	-0.27 0.00	1.00												
West	-0.03 0.00	-0.03 0.00	-0.17 0.00	0.31 0.00	-0.21 0.00	-0.17 0.00	-0.40 0.00	1.00											
BOP & Shared Custody	-0.00 0.07	-0.01 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	-0.01 0.00	1.00										
Property	-0.00 0.09	0.09 0.00	-0.06 0.00	-0.03 0.00	0.01 0.00	-0.08 0.00	0.06 0.00	-0.02 0.00	-0.01 0.00	1.00									
Drug	-0.02 0.00	-0.09 0.00	0.10 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.02 0.00	-0.03 0.00	-0.01 0.00	-0.40 0.00	1.00								
Violent	0.05 0.00	-0.07 0.00	0.05 0.00	0.03 0.00	-0.01 0.00	0.05 0.00	-0.03 0.00	0.03 0.00	-0.00 0.00	-0.40 0.00	-0.38 0.00	1.00							
Parole & Probation	-0.01 0.00	-0.00 0.03	-0.01 0.00	0.02 0.00	-0.02 0.00	0.08 0.00	-0.05 0.00	0.04 0.00	-0.00 0.00	-0.04 0.00	-0.04 0.00	-0.04 0.00	1.00						
Habitual Offender	-0.00 0.93	-0.00 0.00	0.02 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.01 0.00	-0.00 0.01	-0.03 0.00	-0.03 0.00	-0.03 0.00	-0.00 0.00	1.00					
Immigration	-0.00 0.80	-0.00 0.00	-0.00 0.00	0.01 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.00 0.00	-0.00 0.82	-0.00 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.47	-0.00 0.62	1.00				

Table 10: Correlation Coefficients for Aging Female Inmates (AFI) in 2001 cont'd

<i>Aging Female Inmates 2001 cont'd</i>																			
Variable	AFI 2001	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
Other Offenses	-0.01 0.00	0.09 0.00	-0.10 0.00	0.01 0.00	0.04 0.00	-0.03 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.25 0.00	-0.24 0.00	-0.25 0.00	-0.03 0.00	-0.02 0.00	-0.00 0.00	1.00			
Recidivism	-0.00 0.92	-0.01 0.00	0.08 0.00	-0.10 0.00	0.02 0.00	-0.19 0.00	0.27 0.00	-0.08 0.00	-0.00 0.00	0.09 0.00	0.01 0.00	-0.09 0.00	-0.03 0.00	0.06 0.00	-0.00 0.00	0.00 0.00	1.00		
Lifer	0.10 0.00	-0.01 0.00	0.01 0.00	0.01 0.00	-0.02 0.00	0.03 0.00	-0.01 0.00	0.03 0.00	-0.00 0.02	-0.08 0.00	-0.07 0.00	0.19 0.00	-0.01 0.00	0.00 0.00	-0.00 0.12	-0.05 0.00	-0.04 0.00	1.00	
First Time Offender	0.04 0.00	-0.00 0.00	-0.09 0.00	0.14 0.00	-0.05 0.00	-0.31 0.00	0.06 0.00	0.19 0.00	0.01 0.00	0.03 0.00	-0.00 0.00	0.02 0.00	-0.05 0.00	-0.03 0.00	0.00 0.00	-0.03 0.00	-0.52 0.00	-0.06 0.00	1.00

*Moderately Significant at $\alpha \leq .05$

**Non-significant at $\alpha > .05$

Table 10: Correlation Coefficients for Aging Female Inmates in 2006

<i>Aging Female Inmates 2006</i> (N = 703,086)																			
Variable	AFI 2006	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
AFI 2006	1.00																		
White	-0.05 0.00	1.00																	
Black	0.09 0.00	-0.73 0.00	1.00																
Other	-0.03 0.00	-0.30 0.00	-0.29 0.00	1.00															
Midwest	-0.02 0.00	0.09 0.00	-0.00 0.00	-0.11 0.00	1.00														
Northeast	-0.01 0.00	-0.06 0.00	0.08 0.00	-0.05 0.00	-0.14 0.00	1.00													
South	0.04 0.00	0.03 0.00	0.11 0.00	-0.23 0.00	-0.34 0.00	-0.27 0.00	1.00												
West	-0.01 0.00	-0.03 0.00	-0.17 0.00	0.31 0.00	-0.21 0.00	-0.17 0.00	-0.40 0.00	1.00											
BOP & Shared Custody	-0.00 0.40	-0.01 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	-0.01 0.00	1.00										
Property	-0.00 0.53	0.09 0.00	-0.06 0.00	-0.03 0.00	0.01 0.00	-0.08 0.00	0.06 0.00	-0.02 0.00	-0.01 0.00	1.00									
Drug	0.00 0.00	-0.09 0.00	0.10 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.02 0.00	-0.03 0.00	-0.01 0.00	-0.40 0.00	1.00								
Violent	0.02 0.00	-0.07 0.00	0.05 0.00	0.03 0.00	-0.01 0.00	0.05 0.00	-0.03 0.00	0.03 0.00	-0.00 0.00	-0.40 0.00	-0.40 0.00	1.00							
Parole & Probation	-0.02 0.00	-0.00 0.03	-0.01 0.00	0.02 0.00	-0.02 0.00	0.08 0.00	-0.05 0.00	0.04 0.00	-0.00 0.00	-0.04 0.00	-0.04 0.00	-0.04 0.00	1.00						
Habitual Offender	0.00 0.03	-0.00 0.00	0.02 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.01 0.00	-0.00 0.01	-0.03 0.00	-0.03 0.00	-0.03 0.00	-0.00 0.00	1.00					
Immigration	0.00 0.18	-0.00 0.00	-0.00 0.00	0.01 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.00 0.00	-0.00 0.82	-0.00 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.47	-0.00 0.62	1.00				

Table 11: Correlation Coefficients for Aging Female Inmates in 2006 cont'd

<i>Aging Female Inmates 2006 cont'd</i>																			
Variable	AFI 2001	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
Other Offenses	-0.02 0.00	0.09 0.00	-0.10 0.00	0.07 0.00	0.04 0.00	-0.03 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.25 0.00	-0.24 0.00	-0.25 0.00	-0.03 0.00	-0.02 0.00	-0.00 0.00	1.00			
Recidivism	0.01 0.00	-0.01 0.00	0.08 0.00	-0.10 0.00	0.02 0.00	-0.19 0.00	0.27 0.00	-0.08 0.00	-0.00 0.00	0.09 0.00	0.01 0.00	-0.09 0.00	-0.03 0.00	0.06 0.00	-0.00 0.00	0.00	1.00		
Lifer	0.07 0.00	-0.01 0.00	0.01 0.00	0.01 0.00	-0.02 0.00	0.03 0.00	-0.01 0.00	0.03 0.00	-0.00 0.02	-0.08 0.00	-0.07 0.00	0.19 0.00	-0.01 0.00	0.00 0.00	-0.00 0.12	-0.05 0.00	-0.04 0.00	1.00	
First Time Offender	0.03 0.00	-0.00 0.00	-0.09 0.00	0.14 0.00	-0.05 0.00	-0.31 0.00	0.06 0.00	0.19 0.00	0.01 0.00	0.03 0.00	-0.00 0.00	0.02 0.00	-0.05 0.00	-0.03 0.00	0.00 0.00	-0.03 0.00	-0.52 0.00	-0.06 0.00	1.00

*Moderately Significant at $\alpha \leq .05$

**Non-significant at $\alpha > .05$

Table 11: Correlation Coefficients for Aging Female Inmates (AFI) in 2012

		<i>Aging Female Inmates 2012</i> (N = 839,182)																	
Variable	AFI 2012	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
AFI 2012	1.00																		
White	-0.05 0.00	1.00																	
Black	0.09 0.00	-0.73 0.00	1.00																
Other	-0.04 0.00	-0.30 0.00	-0.29 0.00	1.00															
Midwest	-0.02 0.00	0.09 0.00	-0.00 0.00	-0.11 0.00	1.00														
Northeast	-0.01 0.00	-0.06 0.00	0.08 0.00	-0.05 0.00	-0.14 0.00	1.00													
South	0.02 0.00	0.03 0.00	0.11 0.00	-0.23 0.00	-0.34 0.00	-0.27 0.00	1.00												
West	0.00 0.14	-0.03 0.00	-0.17 0.00	0.31 0.00	-0.21 0.00	-0.17 0.00	-0.40 0.00	1.00											
BOP & Shared Custody	-0.00 0.22	-0.01 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	-0.01 0.00	1.00										
Property	-0.02 0.00	0.09 0.00	-0.06 0.00	-0.03 0.00	0.01 0.00	-0.08 0.00	0.06 0.00	-0.02 0.00	-0.01 0.00	1.00									
Drug	0.04 0.00	-0.09 0.00	0.10 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.02 0.00	-0.03 0.00	-0.01 0.00	-0.40 0.00	1.00								
Violent	-0.02 0.00	-0.07 0.00	0.05 0.00	0.03 0.00	-0.01 0.00	0.05 0.00	-0.03 0.00	0.03 0.00	-0.00 0.00	-0.40 0.00	-0.39 0.00	1.00							
Parole & Probation	-0.02 0.00	-0.00 0.03	-0.01 0.00	0.02 0.00	-0.02 0.00	0.08 0.00	-0.05 0.00	0.04 0.00	-0.00 0.00	-0.04 0.00	-0.04 0.00	-0.04 0.00	1.00						
Habitual Offender	0.01 0.00	-0.00 0.00	0.02 0.00	-0.01 0.00	-0.01 0.00	-0.02 0.00	0.04 0.00	-0.01 0.00	-0.00 0.01	-0.03 0.00	-0.03 0.00	-0.03 0.00	-0.00 0.00	1.00					
Immigration	0.00 0.90	-0.00 0.00	-0.00 0.00	0.01 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.00	0.00 0.00	-0.00 0.82	-0.00 0.00	-0.00 0.00	-0.00 0.00	-0.00 0.47	-0.00 0.62	1.00				

Table 12: Correlation Coefficients for Aging Female Inmates (AFI) in 2012 cont'd

<i>Aging Female Inmates 2012 cont'd</i>																			
Variable	AFI 2012	White	Black	Other	Midwest	Northeast	South	West	BOP & Shared Custody	Property	Drug	Violent	Parole & Probation	Habitual Offender	Immigration	Other Offenses	Recidivism	Lifer	First Time Offender
Other Offenses	-0.00 0.09	0.09 0.00	-0.10 0.00	0.01 0.00	0.04 0.00	-0.03 0.00	-0.01 0.00	0.03 0.00	-0.01 0.00	-0.25 0.00	-0.24 0.00	-0.25 0.00	-0.03 0.00	-0.02 0.00	-0.00 0.00	1.00 0.00			
Recidivism	0.04 0.00	-0.01 0.00	0.08 0.00	-0.10 0.00	0.02 0.00	-0.19 0.00	0.27 0.00	-0.08 0.00	-0.00 0.00	0.09 0.00	0.01 0.00	-0.09 0.00	-0.03 0.00	0.06 0.00	-0.00 0.00	0.00 0.00	1.00 0.00		
Lifer	0.04 0.00	-0.01 0.00	0.01 0.00	0.01 0.00	-0.02 0.00	0.03 0.00	-0.01 0.00	0.03 0.00	-0.00 0.02	-0.08 0.00	-0.07 0.00	0.19 0.00	-0.01 0.00	0.00 0.00	-0.00 0.12	-0.05 0.00	-0.04 0.00	1.00 0.00	
First Time Offender	0.00 0.00	-0.00 0.00	-0.09 0.00	0.14 0.00	-0.05 0.00	-0.31 0.00	0.06 0.00	0.19 0.00	0.01 0.00	0.03 0.00	-0.00 0.00	0.02 0.00	-0.05 0.00	-0.03 0.00	0.00 0.00	-0.03 0.00	-0.52 0.00	-0.06 0.00	1.00 0.00

*Moderately Significant at $\alpha \leq .05$

**Non-significant at $\alpha > .05$

Discussion

As a result of the above correlation matrices, it has been determined that the correlations among the independent variables will not be a huge problem for this analysis. Most of the correlations have been found to have weak relationships. Only 1 relationship has been found to be moderate across the specified timepoints for both aging male and female inmates: Recidivism and First Time Offense. One strong relationship among variables exist, and it is the relationship between White and Black.

Multicollinearity

Before proceeding to the multivariate analyses to formally test my hypotheses of how the above factors influence the proportion aged out of all inmates, I first examined bivariate relations in the correlation matrices, with no indications that multicollinearity should be of concern. I further used Variance Inflation Factor (VIF) to test whether multicollinearity may be a concern in multivariate analyses. VIF was computed using Stata 16.1 to determine whether multicollinearity among the independent variables should be of concern. Table 13 indicates that all VIF values are below 10 and the mean of all VIFs is 1.35. VIF values must be below 10 with a mean that is not substantially greater than 1 (STATA 2019:2215; Acock 2014:288). These measures, therefore, exhibit low multicollinearity among the independent variables and is of little concern for these analyses.

Table 12: Variance Inflation Factor

```
. vif, uncentered
```

Variable	VIF	1/VIF
South	2.13	0.469679
Property	1.84	0.543248
Drug	1.76	0.567870
Black	1.56	0.639802
Violent	1.41	0.710194
Recidivism	1.35	0.739691
Midwest	1.32	0.755936
Northeast	1.21	0.828356
Other	1.17	0.854106
Lifer	1.04	0.958981
Parole_Pro~n	1.04	0.963776
Habitual_O~r	1.01	0.994856
BOP_Shared	1.00	0.997596
Immigration	1.00	0.999994
Mean VIF	1.35	

Logistic Regression Models

Logistic regression results for males and females in each year will be presented, followed by my interpretation of effects on each hypothesis. To test my hypotheses in males and females

over three separate years, six logistic regression models were computed. I regressed the proportion of aging inmates on 14 independent variables in 2001, 2006 and 2012 for males and then females. The results of each model can be found in Table 13. The LR χ^2 for each model is highly significant ($p < .001$). This means that the null hypothesis for each model can be rejected, concluding that the independent variables allow for better predictions than would be possible should the independent variables not be included in the model (Acock 2014; Long & Freese 2014; Aneshensel 2013; Treiman 2009). In addition, I will examine McFadden's R^2 (also known as Pseudo R^2) to determine model fit with the data.

Results for Male Inmates in 2001 (Model 1)

Regarding race in 2001, being Black ($b = -0.01$; $p < .05$; odds ratio = .99) slightly reduces the log odds of aging inmates in the prison population compared to being White. The b-value is -0.01. While this is a very slight decrease, the results are consistent between Black and White inmates. Being of other races decreases the log odds ($b = .59$, $p < .001$; odds ratio = .5) of aging inmates out of the total compared to being White.

Being confined in the Northeast compared to the West reduces the proportion of aging inmates among males in 2001 ($b = .06$, $p < .001$). Being confined in the South, compared to the West and other regions, ($b = .85$, $p < .01$) increases the proportion of aging male inmates in 2001. Being confined in the BOP or in shared custody reduces the proportion of aging inmates ($b = -.58$, $p < .001$). Having a p-value of 0.857, being confined in the Midwest has no statistical significance on the log odds of aging inmates. Therefore, confinement in Midwest had no influence in this model.

In Model 1 of Table 14, property offenses decrease the log odds of aging inmates (compared to other offense types) ($b = -.28$, $p < .001$). Drug offenses also decreases the log odds of aging inmates ($b = -.49$, $p < .001$, odds ratio = 0.61). In contrast to the above patterns for offense type, violent offenses increase the log odds of aging inmates ($b = .12$, $p < .001$, (odds ratio = 1.12). Having Convictions for Parole & Probation Violations reduces the log odds of aging inmates ($b = -1.17$, $p < .001$, (odds ratio = 0.31). Furthermore, in 2001, habitual offenders (compared to other offenders) in the inmate population reduces the log odds of aging inmates among males ($b = -0.24$, $p < .001$, odds ratio = 0.78). Notably, immigration convictions was omitted by Stata from this model because it predicts success perfectly. Since this variable contains 104 observations out of a total 200,361, elimination of this variable is acceptable and should not skew results.

Table 13: Results of Logistic Regression of Proportion Aged Inmates on Covariates (b/SE)

Model	2001		2006		2012	
	1 Male N=5,586,953	2 Female N=664,089	3 Male N=5,993,285	4 Female N=703,086	5 Male N=7,097,593	6 Female N=839,182
Independent Variables	b SE	b SE	b SE	b SE	b SE	b SE
<i>Race¹</i>						
Black	-0.01* 0.00	0.67* 0.02	0.07* 0.00	0.61* 0.01	0.04* 0.00	0.43* 0.01
Other Race	-0.59* 0.01	-0.25* 0.05	-0.50* 0.01	-0.20* 0.02	-0.48* 0.00	0.18* 0.01
<i>Condition of Confinement</i>						
<i>Region²</i>						
Midwest	-0.00 0.01	-0.04 0.03	-0.15* 0.00	-0.11* 0.02	-0.28* 0.00	-0.20* 0.01
Northeast	-0.06* 0.01	-0.06 0.04	-0.23* 0.01	-0.19* 0.02	-0.21* 0.00	-0.14* 0.01
South	0.85* 0.01	0.82* 0.02	0.28* 0.00	0.17* 0.01	-0.02* 0.00	-0.08* 0.01
BOP and Shared Custody	-0.58* 0.18	-0.81 1.00	-0.48* 0.08	0.22 0.26	-0.46* 0.05	0.03 0.14
<i>Criminal Justice History</i>						
<i>Offense Type³</i>						
Property	-0.28* 0.01	0.21* 0.03	-0.23* 0.00	0.12* 0.02	-0.27* 0.00	-0.10* 0.01
Drug	-0.49* 0.01	0.02 0.03	-0.24* 0.00	0.14* 0.02	-0.24* 0.00	0.08* 0.01
Violent	0.12* 0.01	0.52* 0.03	-0.10* 0.00	0.09* 0.02	-0.30* 0.00	-0.21* 0.01

Table 14: Results of Logistic Regression of Proportion Aged Inmates on Covariates (b/SE) cont'd

Model	2001 cont'd		2006 cont'd		2012 cont'd	
	1 Male	2 Female	3 Male	4 Female	5 Male	6 Female
Parole & Probation Violation	-1.17*	-1.79*	-0.81*	-1.49*	-0.41*	-0.70*
Habitual Offender	-0.24*	-0.04	-0.08*	0.29*	-0.03	0.27*
Immigration	-----	-----	-2.33*	1.81	-1.11*	0.28
			1.01	1.16	0.32	1.16
<i>Variables from Aday's Typology (2003)⁴</i>						
Recidivism	0.03*	-0.18*	0.16*	-0.04*	0.34*	0.18*
Lifer	0.01	0.02	0.00	0.01	0.00	0.01
	1.67*	2.27*	1.31*	1.69*	0.97*	1.09*
	0.01	0.04	0.01	0.03	0.01	0.03

LR chi² = 91683.20
 Prob>chi2 = 0.0
 Pseudo R2 = 0.05

LR chi² = 7389.57
 Prob>chi2 = 0.00
 Pseudo R2 = 0.05

LR chi² = 84427.72
 Prob>chi2 = 0.00
 Pseudo R2 = 0.05

LR chi² = 8380.56
 Prob>chi2 = 0.00
 Pseudo R2 = 0.05

LR chi² = 114928.5
 Prob>chi2 = 0.00
 Pseudo R2 = 0.05

LR chi² = 11417.81
 Prob>chi2 = 0.00
 Pseudo R2 = 0.05

b = Coefficient
 SE = Standard Error
 * p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

1 = Referent is White.
 2 = Referent is West.
 3 = Referent is Other Offenses.
 4 = Referent is First Time Offender.

The coefficient for Recidivism offenses is 0.03 (odds ratio = 1.03), which means that recidivism (compared to first time offender and other sentence lengths) increases the log odds of aging male inmates in 2001. Lifer status increases the log odds of aging male inmates ($b=1.67$; $p<.001$; odds ratio = 5.30), compared to other sentence lengths.

Results for Female Inmates in 2001 (Model 2)

Being Black increases the log odds of aging female inmates, compared to being White ($b=0.67$; $p<.001$; odds ratio=1.96). Being a member of Other races decreases the log odds of aging female inmates when compared to being White ($b=-0.25$; $p<.001$; odds ratio=0.78).

Confinement in the South increases the log odds of aging female inmates, compared to West and all other regions ($b=0.82$; $p<.001$; odds ratio = 2.26). All other regions were not significant for aging female inmates in 2001. Being confined in the Midwest ($p=.18$), Northeast ($p=.18$), or BOP and shared custody (.42) has no statistical significance on the log odds of aging female inmates in Model 2. Therefore, confinement in Midwest, Northeast, or BOP and shared custody had no influence in this model.

Property offense increases the log odds of aging female inmates, compared to all other offenses ($b=0.21$; $p<.001$; odds ratio = 1.24). Violent offenses increase the log odds of aging female inmates ($b=0.52$; $p<.001$; odds ratio = 1.69). Parole & Probation Violation decreases the log odds of aging inmates in Model 2 ($b=-1.79$; $p<.001$; odds ratio = 0.17). Drug offenses ($p=.51$) and habitual offender status ($p=.91$) have no statistical significance on the log odds of aging inmates and, therefore, had no influence in this model. Immigration was omitted from this model because it predicts success perfectly. Since this variable contains 3 observations out of a total 659,025, elimination of this variable is acceptable and should not skew results.

Recidivism status decreases the log odds of aging female inmates ($b=-0.18$; $p<.001$; odds ratio = 0.83), when compared first time offender status. Also, when compared to first time offender status, lifer status increases the log odds of aging female inmates ($b=2.27$; $p<.001$; odds ratio = 9.71).

Results for Male Inmates in 2006 (Model 3)

Being Black ($b=0.07$; $p<.001$; odds ratio of 1.07) increases the log odds of aging male inmates compared to being White. Belonging to other races decreases the log odds of aging male inmates ($b=-0.50$; $p<.001$; odds ratio=.61), when compared to being White.

Being confined in the Midwest decreases the log odds of aging male inmates ($b=-.15$; $p<.001$; odds ratio=1.00). Confinement in the Northeast region of the U.S. decreases the log odds of aging male inmates ($b=-0.06$; $p<.001$; odds ratio=.79), compared to other regions. Confinement to the South ($b=.28$; $p<.001$; odds ratio=1.33) increases the log odds of aging male inmates in 2006 when compared to other regions. Likewise, being confined in the BOP or in shared custody decreases the log odds of aging male inmates ($b= 0.48$; $p<.001$; odds ratio=0.62), compared to other confinement regions.

In 2006, property offense decreases the log odds of aging male inmates when compared to other offenses ($b=-0.23$; $p<.001$; odds ratio = 0.79). Drug offenses decrease the log odds of aging male inmates ($b=-0.24$; $p<.001$; odds ratio = 0.79). Violent offenses decrease the log odds of aging male inmates in Model 3 ($b=-0.10$; $p<.001$; odds ratio = 0.90), when compared to other offenses. Parole & Probation Violations decrease the log odds of aging male inmates ($b=-0.81$; $p<.001$; odds ratio = 0.44). Being a habitual offender, compared to other offenses, decreases the log odds of aging male inmates ($b=-.08$; $p<.01$; odds ratio = 0.92). Commission of immigration violations decreases the log odds of aging inmates ($b=-2.33$; $p<.05$; odds ratio = 0.10).

Being a recidivist increases the log odds of aging male inmates in 2006 ($b=0.16$; $p<.001$; odds ratio = 1.17). Having Lifer status, compared to first time offender status increases the log odds of aging inmates ($b=1.31$; $p<.001$; odds ratio = 3.71)

Results for Female Inmates in 2006 (Model 4)

When compared to being White, being Black increases the log odds of aging female inmates ($b=0.61$; $p<.001$; odds ratio=1.84). Being Other races decrease the log odds of aging inmates, compared to being White ($b=-0.20$; $p<.001$; odds ratio=0.82).

Being confined in the Midwest ($b=-0.11$; $p<.001$; odds ratio = 0.89) decreases the log odds of aging inmates in Model 4. Confinement in the Northeast decreases the log odds of aging female inmates, compared to West and other regions ($b=-0.19$; $p<.001$; odds ratio=.83). Confinement in the South increases the log odds of aging inmates, compared to being confined anywhere else in the United States ($b=.17$; $p<.001$; odds ratio=1.19). BOP and shared custody ($p=.39$) have no statistical significance on the log odds of aging female inmates and, therefore, had no influence in this model.

Property offense increases the log odds of aging inmates ($b=.12$; $p<.001$; odds ratio = 1.13) when compared to all other offense types. Drug offenses ($b=0.14$; $p<.001$; odds ratio =

1.02) increase the log odds of aging inmates when compared to other offenses in 2006. Violent offenses increase the log odds of the outcome in Model 4 ($b=0.09$; $p<.001$; odds ratio = .90). Parole & Probation Violations decrease the log odds of aging female inmates ($b=-1.49$; $p<.001$; odds ratio = 0.22) when compared to other offenses. Habitual offender status increases the log odds of aging inmates when compared to other offenses ($b=0.29$; $p<.05$; odds ratio = 0.97). Immigration violations ($p=.12$) have no statistical significance on the log odds of aging female inmates and, therefore, had no influence in this model.

Recidivism (-0.04 ; $p<.01$; odds ratio = 0.83) decreases the log odds of aging inmates when compared to first time offender status in 2006. Lifer status increases the log odds ($b=1.69$; $p<.001$; odds ratio = 5.41).

Results for Male Inmates in 2012 (Model 5)

Regarding race, being Black in 2012 increases the log odds of aging male inmates when compared to being White ($b=0.04$; $p<.001$; odds ratio = 1.04). In contrast, belonging to other races decreases the log odds of aging male inmates ($b=-0.48$; $p<.001$; odds ratio=0.62).

Being confined in the Midwest ($b=-.28$; $p<.001$; odds ratio = 0.76), decreases the log odds of aging male inmates, compared to West and other regions. Confinement in the Northeast ($b=-0.21$; $p<.001$; odds ratio=.81) decreases the log odds of aging male inmates in 2012. Confinement in the South decreases the log odds of aging male inmates ($b=-0.02$; $p<.001$; odds ratio = 0.98). Likewise, being confined in the BOP or in shared custody decreases the log odds of aging male inmates when compared to West and other regions ($b=-0.46$; $p<.001$; odds ratio=0.63).

Property offense decreases the log odds of aging male inmates when compared to other offense types ($b=-0.27$; $p<.001$; odds ratio = 0.76). Drug offenses decrease the log odds of aging male inmates ($b=-0.24$; $p<.001$; odds ratio = 0.79). Violent offenses decrease the log odds of the outcome as well ($b=-0.30$; $p<.001$; odds ratio = 0.74). Parole & Probation Violation also decreases the log odds of aging male inmates ($b= -0.41$; $p<.001$; odds ratio = 0.66). Immigration violations decrease the log odds of aging male inmates when compared to other offenses ($b=-1.11$; $p<.01$; odds ratio = 0.33).

Being a recidivist increases the log odds of aging male inmates ($b= 0.34$; $p<.001$; odds ratio = 1.41), compared to first time offender status. Having lifer status increases the log odds of

aging male inmates ($b = 0.97$; $p < .001$; odds ratio = 2.64) when compared with other sentence lengths.

Results for Female Inmates in 2012 (Model 6)

Regarding race in 2012, being Black increases the log odds of the outcome when compared to being White ($b = 0.43$; $p < .001$; odds ratio = 1.54). Belonging to other races decreases the log odds of aging female inmates when compared to being White ($b = -0.18$; $p < .001$; odds ratio = 0.84).

Consistent in 2001 and 2006, confinement in the Midwest decreases the log odds of aging female inmates when compared to other regions in the U.S. ($b = -0.21$; $p < .001$; odds ratio = 0.82). As in previous years, being confined in the Northeast decreases the log odds of aging female inmates ($b = -0.14$; $p < .001$; odds ratio = 0.87). Confinement in the South decreases the log odds of the outcome, compared to the West and other regions ($b = -0.08$; $p < .001$; odds ratio = 0.93). This is a divergence from 2001 and 2006, where confinement in the South increases the log odds of aging female inmates. BOP and Shared Custody ($p = .84$) have no statistical significance on the log odds of aging female inmates and, therefore, had no influence in this model.

Unlike previous years, property offense decreases the log odds of aging female inmates, compared with other offenses ($b = -0.10$; $p < .001$; odds ratio = 0.91). Drug offenses increase the log odds of the outcome in 2012 ($b = 0.08$; $p < .001$; odds ratio = 1.08). Violent offenses decrease the log odds of aging inmates when compared to other offenses ($b = -0.21$; $p < .001$; odds ratio = 0.81). Parole & Probation Violation decreases the log odds of aging female inmates ($b = -0.70$; $p < .001$; odds ratio = .50). Habitual offender status increases the log odds of aging inmates when compared to other offenses ($b = .27$; $p < .001$; odds ratio = 1.31). Immigration violations ($p = .81$) have no statistical significance on the log odds of aging female inmates and, therefore, had no influence in this model.

Compared with first time offender status, recidivism status increases the log odds of aging female inmates ($b = 0.18$; $p < .001$; odds ratio = 1.20). This is a divergence from previous years where recidivism was a decrease. Lifer status increases the log odds of the outcome in Model 6 ($b = 1.09$; $p < .001$; odds ratio = 2.98) when compared with first time offender status.

Discussion of Hypotheses

Given the aforementioned results for the Proportion Aged Inmates in 2001, 2006, and 2012, I now relay the results to my hypotheses. A brief overview of the analysis of the hypotheses can be found in Table 15. Each hypothesis is represented by the associated variables used in the logistic regression and details whether the hypotheses were supported. Table 15 is demarcated between aged male inmates and female inmates.

Race

The race hypothesis posits that as the proportion of racial minorities in prisons increases, so will the growth in aging male and female inmates out of all inmates. Despite a slight dip in the direction of log odds for aged male inmates in 2001, the influence of being Black remained consistent across 2001, 2006, and 2012 for both males and females. Therefore, the null hypothesis was rejected for the proportioned aged male and female inmates. Other races had an inverse relationship on the outcome for both aged males and females except in 2012 for aged female inmates. In 2012, other races had a positive effect on the log odds of aged female inmates and rejects the null hypothesis. In 2001 and 2006, the null hypothesis was accepted for the proportion aged female inmates. For aged male inmates across 2001, 2006, and 2012, the null hypothesis was accepted regarding other races.

Variables from Aday's Typology (2003)

The Recidivism hypothesis stated that a greater proportion of recidivists in the prison population will contribute to more aging male and aging female inmates in the prison population. The null hypothesis is rejected for male inmates in years 2001, 2006, and 2012. In other words, the hypothesis is supported by all models for proportion aged inmates. This is also true for proportion aged female inmates in 2012. In 2001 and 2006, the null hypothesis is accepted for the proportion of aged female inmates out of all female inmates. Given that many aging female inmates are first time offenders, data did not support the recidivism requirements.

The hypothesis for lifer status indicates that a greater proportion of those serving life sentences or are on death row will contribute to more aging male and aging female inmates in the prison population. In 2001, 2006, and 2012, the aforementioned hypothesis was supported on both outcomes. As such, the null hypothesis was rejected for proportion aged male and aged female inmates in 2001, 2006, and 2012. The longer the sentence, the greater the probability that the proportion aged inmates will increase.

Table 14: Analysis of Hypotheses for Factors that Influence the Growth of the Aging Inmate Population

Independent Variables	2001		2006		2012	
	Male Hypothesis Supported	Female Hypothesis Supported	Male Hypothesis Supported	Female Hypothesis Supported	Male Hypothesis Supported	Female Hypothesis Supported
<i>Race</i>						
Black	Yes	Yes	Yes	Yes	Yes	Yes
Other Races	No	No	No	No	No	No
<i>Variables from Aday's Typology (2003)</i>						
Recidivism	Yes	No	Yes	No	Yes	Yes
Lifer	Yes	Yes	Yes	Yes	Yes	Yes
First Time Offender	Yes	Yes	Yes	Yes	Yes	Yes
<i>Offense Type</i>						
Property	----	Yes	----	Yes	----	No
Drug	----	Yes	----	Yes	----	Yes
Violent	Yes	----	No	----	No	----
<i>Region</i>						
Midwest	No	No	No	Yes	No	No
Northeast	No	No	No	Yes	No	No
South	Yes	Yes	Yes	Yes	No	No

The last variable from Aday's typology (2003) is First Time Offender status. The hypothesis stated that a greater proportion of those serving time as first time offenders will contribute to more aging males and females in the prison population, as they would have been admitted to prison over age 50 and over age 45 respectively. First Time Offender status across all years and both outcomes provides support for the hypothesis and rejects the null hypothesis.

Variables from Aday's typology (2003) have been confirmed for aged male inmates across all years. For female inmates, the variables from the typology are supported in 2012. However, recidivism in 2001 and 2006 has an inverse relationship on proportion aged female inmates. Therefore, the variables from Aday's typology (2003) cannot be successfully applied to aged female inmates.

Offense Type

As an extension to the variables from Aday's typology (2003), I have introduced Offense Type to help further explain characteristics of aging male and female inmates. The assumption is as follows: A greater percentage of males sentenced for violent crimes will positively influence the size of the aging population in prison; however, a greater percentage of females sentenced for property and drug crimes will contribute to a higher percentage of imprisoned females in the older age categories. From descriptive statistics alone, the null hypothesis was rejected across all years for the proportion aged males and the proportion aged females. In 2001, this hypothesis was supported for both males and females, thereby rejecting the null hypothesis. For aged male inmates in 2006 and 2012, results of logistic regression suggest an inverse relationship with property, drug, and violent offenses. Similarly, results indicate an inverse relationship for aged female inmates with violent offenses in 2006 and property offenses in 2012. Despite this, a greater percentage of aged male inmates have been confined for violent offenses, and a greater percentage of aged females have been confined for property and drug offenses.

Region

Aging male inmates are more likely to have been incarcerated in the Midwest, Northeast, and South regions of the United States when compared to their male counterparts in the West region of the United States, net of other variables in the model. Collectively, the null hypothesis was rejected across all years for the proportion aged males. In 2001, Midwest was not statistically significant for male inmates. For aged male inmates, results of logistic regression suggest an inverse relationship with Midwest and Northeast. In 2012, results also indicate an

inverse relationship with the South. Despite this, a greater percentage of aged male inmates have been confined in the Midwest, the Northeast, and the South when compared to the West.

Similarly, aging female inmates are more likely to have been incarcerated in the Midwest, Northeast, and South regions of the United States when compared to their female counterparts in the West region of the United States, net of other variables in the model.

Collectively, the null hypothesis was rejected across all years for the proportion aged females. In 2001, Midwest and Northeast were not statistically significant. For aged female inmates, results of logistic regression suggest an inverse relationship with Midwest and Northeast in 2006 and 2012. This is also the case aged female inmates with South. Despite this, a greater percentage of aged female inmates have been confined in the Midwest, the Northeast, and the South when compared to the West.

Goodness of Fit

The logit function in STATA provides a Pseudo R^2 in addition to the regression and log likelihood. The Pseudo R^2 produced is also known as McFadden's R^2 . This measure, according to Long & Freese (2014), provides an approximation on a model's adequacy. The Pseudo R^2 usually has a small value (Acock 2014). In this instance, the N's used in the regression analysis have such large values that the p-values will be high as well.

CHAPTER V

QUALITATIVE ANALYSIS

All state DOCs and the BOP provide healthcare for aging inmates. This includes, but is not limited to, medical care facilities, long term care facilities, assisted living units, hospice, and a host of other healthcare options for inmates in need of medical care. Some prison facilities also have designated dementia units and elderly wards on the premises. This analysis did not focus on the medical options available, unless there was an additional component that provided avenues for aging inmates to have benefits other than medical. This was done to focus on prevention, education, and recreational benefits that prove to be helpful in the inmate's agency for self-care. As a result, I conducted an exploratory analysis via survey questions and telephone follow-up with state DOCs with a multitude of programming options.

Results of the survey sent to state prisons yielded a 42% response rate, given that 21 out of 50 states participated. Of those states surveyed, 16 provided that their state DOCs do not have policies or programs for aging male inmates. Five state DOCs reported having some type of programs or policies for aging male inmates, while one state reported having programs for aging female inmates. Williams & Rikard (2004) previously noted that there were 23 states with programs for aging male inmates and 2 states with programs for aging female inmates. Within a 15-year timeframe, state DOCs have drastically lessened the number of programs available for all aging inmates despite growth of the aging inmate population. Four distinct categories were apparent among the

states that have policies and/or programs: prisons with policies, prisons with programs for males, prisons with gender responsive programs, and the Federal BOP. Each category will be discussed in detail providing a glimpse into the available programs and policies for aging inmates. The purpose of this case study is to provide a bird's eye view of the operation of prison facilities pertaining to older inmates.

Prisons with Policies

Within this analysis, one state had policies in place for aging inmates. Publicly available information regarding the Florida DOC's policies for older inmates was used in this analysis since the Florida DOC declined participation in this study. Florida DOC's policy states that an individualized plan be created for any impaired inmate, regardless of age (FL DOC 2018). The individualized plan is reviewed quarterly for continued accuracy. Once an inmate turns 50 years of age, regardless of health history, the inmate is required to undergo an annual medical examination, screening, and a dental examination (FL DOC 2018). Aging inmates are screened for Alzheimer's disease and/or other types of dementia as a part of the annual exam. Mental acuity is also tested and monitored to ensure that the aging inmate is housed within an environment suitable for his or her mental aptitude. It is also important to mention that approximately 95% of the aging inmate population in Florida prisons are males; the remaining 5% are females (FL DOC 2018). Due to these statistics, the Florida DOC is concerned with safety, health, and well-being of the largest proportion of their aging inmates: males. Age 50 was determined as the demarcation for the aging inmate when compared to younger inmates, because 50 years old is the lower limit for the aging male inmate (Rikard &

Rosenberg 2007; Aday 2003; NIC Videoconference 2001). This standard has been applied to aging male inmates and extended to aging female inmates without any consideration for the diverse needs of aging female inmates and their early onset of aging effects. By doing so, gender responsiveness in policies is overlooked, thereby exposing aging female inmates to potential risks that can occur between ages 45 to 49. However, it is noteworthy that the Florida DOC has implemented policies to proactively prepare for issues and/or health concerns specific to all aging inmates. To date, Florida is the only state to have such policies, albeit relative to those DOCs who participated in the current study.

Prisons with Programs for Aging Male Inmates

Extant literature stated that 23 states had programs for aging male inmates (Rikard & Rosenberg 2007). This was not the case for the current analysis. Of the 21 states that participated in this study, four state DOCs had programs for aging male inmates: Connecticut, Minnesota, Nevada and Virginia. Program details for each DOC's available options are listed below.

Connecticut

The Connecticut DOC has a program worthy of exploration. They have contracted with a local nursing home to care for elderly and infirmed inmates upon their release from prison (McCarthy 2013). An inmate must be non-violent and exhibit little to no risk to society to become eligible for this program. While this program began in 2011, it wasn't until 2 years later that inmates granted parole were allowed admission to this program. The program is funded using federal benefits from the Centers for

Medicare & Medicaid Services. Infirm and recently paroled inmates are not the only occupants of this facility. This is a mixed-use facility comprising of psychiatric referrals and members of the community. In the 8 years of its existence, this facility has not had any criminal incidents. What distinguishes this program from others is the proactive thinking of care for the recently paroled. There is no program in the country that provides this type of access to care.

Minnesota

The Minnesota DOC has a specific geriatric housing unit at one male facility. While this is not unique from medical care provided by other DOCs, they are distinguished from the rest of the country by providing specialized medical release planners. Medical release planners are required for any inmates with a serious illness who will be released from prison and ultimately be expected to re-enter society. This program is worth discussion within the context of the discourse on aging inmates, as it provides continuity of care after the inmate has been released from prison. Most prisons do not have this type of program for inmates at any age. Older inmates, regardless of gender, can benefit from this program since many require some level of assistance in their day-to-day lives and may continue to require such assistance to be fully integrated within society.

Nevada

As a result of the increase in their aging male inmate population, the Northern Nevada Correctional Center created a volunteer-driven *True Grit* program. This program allows admission for inmates over 55 years of age. Age is not the only requirement for

the program, and participation is strictly voluntary. In fact, many inmates are not eligible for this program. It is only located at one prison in the state of Nevada. Custody assignment is instrumental in determining which inmates may be eligible to participate in True Grit. As a result, approximately 10% of the aging male inmate population in Nevada is a part of True Grit. Half of those aging male inmates are first time offenders.

Admission to the program is not automatic based on age. Inmates must submit an application to the program and undergo an interview with an interdisciplinary committee consisting of the program administrator, case worker, mental health counselor, and a corrections officer. Physical and mental health of the inmate is considered as a part of the reintegration plan. If admitted, the inmate begins the program on a 12-week, probationary status. During the probationary period, the aging inmate is evaluated on several aspects to determine whether he is a good candidate for rehabilitation.

True Grit was designed as a method of rehabilitation of program participants with a structured plan for reintegration into society. Planning for reintegration into society is intended to address the physical, mental, spiritual, and emotional needs and well-being of aging male inmates. True Grit ultimately evolved into a structured program, eventually being named the *Senior Structured Living Program* (SSLP). Activities and services include physical therapy and recreation, group and individual counseling, pet therapy, musical groups, choir, theater, a published journal, and craft-making designed to slow the onset of osteoarthritis through fine-touch movements. This program is meant to allow for more targeted therapy to address behaviors that led to their conviction. Discharge planning begins once an inmate is admitted to the program and is

tailored for each individual's needs, inclusive of mental, physical, and social expectations. The discharge plan is assessed weekly and monitored on an as needed basis for each inmate. Inmates are required to participate in SSLP on a full-time basis with a 7-day per week commitment. As a result, inmates are not allowed to have any work assignments or full-time education programs.

The operation of SSLP depends on volunteers, who range from psychotherapists and family counselors to social workers and military veterans. SSLP is predicated on the notion that "improving care while incarcerated is an important step towards reducing overall costs of incarceration and re-entry; costs for care while incarcerated are two to eight times higher for those between the ages of 55 to 80" (Nevada DOC interview excerpt, 2018). There is no tangible evidence to determine whether SSLP is effective. However, the Northern Nevada Correctional Center stated that an evaluation of True Grit/SSLP was performed. The evaluation and subsequent results were not provided as a part of this study. The DOC representative stated that the evaluation results showed that the program has decreased the number of doctor visits and medications used by the elderly while also enhancing levels of social support and wellbeing.

Virginia

The Deerfield Correctional Center in Virginia houses the majority of the state's aging male inmates. Aside from having medical options, such as an assisted living unit and an infirmary, this facility provides the following programs specifically for aging male inmates: horticulture, library with large print books, "reality check" to monitor dementia, peer tutoring, computer programs for blind aging inmates, educational

programs, and recreational programs designed with the needs of the aging inmate in mind.

Prison with Gender Responsive Programs

Ohio is the only state represented in this analysis that has gender responsive program options for aging female inmates. Gender responsive refers to programs that are designed specifically for female inmates instead of using programs created for male inmates. In many cases, prisons have created programs for aging male inmates and applied them to aging female inmates without considering the needs of females. Ohio has been a notable frontrunner in providing gender responsive programs for the last two decades. While these programs have changed over the years, the commitment of the wardens in Ohio is grounded in its mission of rehabilitation and reentry. This section is focused on the programs available for aging female inmates housed in the Ohio Reformatory for Women (ORW), which includes 14 dorms and houses approximately 2,700 inmates.

The warden of ORW confirmed that there are currently 13 programs available for aging female inmates: Recreation, Lifers Group, GIVE group, Ohio Penal Industry, Cancer Care, Rec Yard, Yard Day, EMBARK Kindway, Dress for Success, Roots for Success, Train the Trainer, Inmate Advisory Program, and Coffee Crafters. These programs were designed for inclusivity of and/or exclusively for aging female inmates. The premise of these programs is to provide aging female inmates with a purpose and to provide transferrable skills which can be used upon reentry into society after prison release.

Recreation programs specific to aging female inmates are the weight cage, croquet, frisbee, golf, bowling, corn hole, drama, pickle ball, line dancing, and arts & crafts (crochet, knitting, etc.). Inmates must be a minimum of 40 years old to take part in these programs. Age 40 is five years earlier than the accepted age for aging to become apparent. This may be done to ease female inmates into these types of recreation programs.

The Lifers Group performs fundraising and community service. They are given access to live in the Lifers Dorm. This group is the strongest inmate group within the facility, according to Warden Ronnette Burkes. Many lifers are also members of the GIVE Group; this group consists of mostly lifers but is open to all female inmates. The GIVE group provides support and/or service to inmates who served in the Armed Forces. There is an element of community service in this group as well.

Ohio Penal Industry (OPI) is a business created to allow inmates the opportunity to develop work skills and acquire training that can be used upon reentry to society. Quality products at low costs are created through this program to be utilized within the prison and within other government agencies. An example of the types of products created is the production of flags, patches for uniforms, eyeglasses, etc. A GED or high school diploma is required prior to job placement. Inmates must also choose a career tract and complete an application for a respective position. This is a job and follows the same logic enforced on the outside of prison to aid the inmate in handling real-life situations on the job.

Cancer Care class and classes regarding other chronic illnesses are designed for female inmates to discuss illnesses, provide support, and teach coping skills to handle certain types of care. These classes have a majority of older offenders, despite the classes being available for all inmates.

Rec Yard is an outdoor facility used for various types of sports: softball, track, hackysack, etc. There is also an existing track used for jogging and walking named “Walk Dog.” Older inmates use the Walk Dog exclusively. In addition, **Yard Day** is a periodic event that encompasses specific programs for older inmates: bingo, movies, trivia, etc. Winners of each activity are eligible to win prizes.

Train the Trainer is a program specifically designed to allow older female inmates the opportunity to learn specific programs and train the younger inmates. Two examples of this type of program are EMBARK Kindway and Dress for Success.

EMBARK Kindway is a reentry-based program which partners with the Ohio Agency on Aging. The program is designed to teach inmates certain skills that can be used once the inmate is released from prison. Skills taught within EMBARK Kindway include resume writing, interview skills, and creating KindWear. KindWear is a jewelry making program that sells the products created by inmates. EMBARK also uses older inmates as program aides in the seminars. In fact, a 65-year old inmate leads this program.

Dress for Success is a similar program to EMBARK. The program provides a 6 to 8-week course on having a professional appearance for job interviews. There also additional seminars, such as resume writing workshops and interview skills workshops. Older inmates are also used as program aides in Dress for Success.

Additional programs are as follows. **Roots for Success** is a green initiative allowing older inmates the opportunity to learn the importance of composting, recycling, etc. The **Inmate Advisory Program** is a mix of young and old inmates with good disciplinary records to voice concerns of the inmate population to prison staff. It is very common for older inmates to suggest new programs, shows, etc., for the facility's administrative staff to take under consideration. In addition, there is a **Formal Program on Wheelchair Pushing**. In the general prison population, younger inmates have been known to charge older inmates for pushing wheelchairs. Inmates felt that this needed to stop and voiced this concern to the prison staff. Their suggestion was to implement a program where inmates perform wheelchair pushing as their job to eliminate the racket and to provide similar training to nursing home care that can be used in finding gainful employment upon the younger inmate's release from prison.

The final program for aging female inmates in Ohio is **Coffee Crafters**. Coffee Crafters is a 12-week barista academy, which allows inmates to become certified baristas and sell coffee drinks to inmates and staff within the prison facility. Older inmates serve as program aides for the barista academy. The program helps with job placement and/or starting one's own business for those inmates who will eventually be released from prison. In fact, one graduate of the program was hired by the Coffee Crafters pilot program in one of the male prison facilities after her release from prison.

Given that ORW is the gold standard for gender responsive programs, it is safe to say that their programs can serve as a model for the rest of the country. The majority of programs require little, if any, funding and/or prison resources. Utilizing outside

volunteers and inmate labor to facilitate these programs is key in an effort to limit the impact on prison resources while simultaneously providing necessary programming options for aging female inmates. ORW, through these programs, has provided a necessary avenue for aging female inmates to be educated on aging and associated health risks or concerns. In addition, these programs provide training for inmates who will one day be released from prison. Allowing older female inmates to work as program aides, often times, gives older female inmates a purpose and a means of giving back to younger inmates to help them break the cycle of recidivism.

Federal Bureau of Prisons

Despite a growing number of aging inmates, the BOP has not instituted any kind of programs or policies directly targeting the aging inmate population. It is their belief that inadequate training, poorly designed facilities, and limited resources are the reason for this vacancy. The BOP has a policy for geriatric compassionate release. Geriatric Compassionate Release is an option for “new law” elderly inmates or elderly inmates with medical conditions who meet certain criteria. The criteria includes, but is not limited to, the following: age 65 and older, suffer from chronic or serious medical conditions related to the aging process, experiencing deteriorating mental or physical health that substantially diminishes their ability to function in a correctional facility, conventional treatment promises no substantial improvement to their mental or physical condition, and have served at least 50% of their sentence (Hurwitz 2019 – DOJ/BOP Directive on 18 U.S.C. §§ 3582 and 4205(g)). Due to the extensive criteria, there is a limited number of inmates that can even be considered for geriatric compassionate

release. An even smaller number of aging inmates has actually received this type of release. This further ensures that little to no aging inmates have benefited from early release.

Aging inmates are receiving no supplemental programs regarding aging and health. Such programs could be instrumental in helping to prevent some illnesses with fewer medications. Preventative and education programs could also support an aging inmate's agency in initiating self-care. In doing so, aging inmates are dependent on the BOP for care and for treatment of accelerated illnesses that may go undetected. Recognizing this, the federal BOP has developed a set of recommendations for future planning relating to the aging inmate.

- Develop national guidelines for the availability and purpose of inmate companion programs.
- Consider the feasibility of placing additional Social Workers in more institutions, particularly those with larger populations of aging inmates.
- Provide all staff training to identify signs of aging and assist in communicating with aging inmates.
- Reexamine the accessibility and the physical infrastructure of all of its institutions to accommodate the large number of aging inmates with mobility needs.
- Study the feasibility of creating units, institutions, or other structures specifically for aging inmates in those institutions with high concentrations of aging inmates.

- Systematically identify programming needs of aging inmates and develop programs and activities to meet those needs.
- Develop sections in release preparation courses that address the post-incarceration medical care and retirement needs of aging inmates.
- Consider revising its compassionate release policy to facilitate the release of appropriate aging inmates, including by lowering the age requirement and eliminating the minimum 10 years served requirement.

Given the strides taken by the aforementioned prisons to mitigate concerns and issues presented by an aging inmate population, the United States has a long way to go. Policies and programs have decreased despite the increase in the proportion of aging inmates over the course of the 21st century. Coupled with that fact, increasing costs of housing and care for aging and elderly inmates are almost four times that of a younger inmate. While most prisons are largely reactionary when it comes to policies and programs for inmates, one state is a leader in programming and medical options for aging and elderly inmates throughout the past 20 years: Ohio. Programs and policies in Ohio prisons for male and female inmates have changed over time, and current wardens admittedly were unaware of past programming options.⁷ Even with a lack of continuity among wardens, Ohio has maintained its focus on rehabilitation for male and female inmates. Some states are in the process of developing programs and/or policies for aging and elderly inmates. Given the financial and staff resources that these types of programs

⁷ This information was taken from phone interviews with each of the four wardens in Ohio conducted by the author of this dissertation.

and policies need to self-sustain, implementation may be prolonged and/or shelved indefinitely. There is hope. When considering implementation of some sort of policy or program, follow the lead of Ohio, Connecticut, Minnesota, Nevada, Virginia, or Florida. There are cost-effective mechanisms available to minimize the impact on prison resources. Utilizing inmate labor by simultaneously providing those inmates with better life skills and job training is a win-win solution. These types of programs are pivotal in a true rehabilitation model.

CHAPTER VI

CONCLUSIONS

As mentioned previously, Black aged male and female inmates are disproportionately represented in prisons. Black aged male and female inmates are often the majority amongst all races, coming in close to White inmates. Other races made up a small portion of the aged inmate population (approximately 5%). Across the 13 years of this study, the majority of aged inmates were confined in southern states.

Variables from Aday's typology (2003) were analyzed to confirm whether the typology is still applicable to aging male inmates and whether aging female inmates can be categorized in the same manner. Results of this analysis indicated that, across the 13-year period, the variables are applicable to proportion aged male inmates out of the total prison population. In other words, recidivism, lifer status, and first time offender status were confirmed for aged male inmates. Similarly, lifer status and first time offender status were applicable for female inmates. Recidivism was found to be an aged male only trait, when compared to aged female inmates. Aged female inmates, therefore, are characterized by only 2 of the assumed characteristics. I added a variable for consideration in this area: offender status. As a result, new typologies have emerged. Aged male inmates were characterized by 4 categories: recidivist, lifer, first time offender, and have a conviction of violent offenses. Whereas, the aged female is characterized by conviction of property and drug offenses, largely first time offenders,

and lifer status. These new findings can aid in correctional planning to help determine appropriation assignment and classification.

Age-gender responsive classification factors should be used for assignment of inmates to specific programming, work assignments, and/or housing. This will ease the impact of aging and lessen the financial burden facing correctional institutions.

Programs which utilize younger inmates as staff will not only be associated with minimal costs to prisons but will also provide a tremendous gain to the aging inmate and to younger inmates trained for work in the healthcare industry.

With clear impacts on prison policy and planning, results encourage the creation and/or replication of programs and policies relative to the treatment of aging inmates and associated prison management. Programs targeting the aging process and health education are invaluable to the prison population. Some prisons have created programs to aid the inmate in the aging process. I propose that there be expansion of such programs and an implementation of new programs that are gender responsive. As a few states do not have an emerging population of aging inmates, implementation of such programs should be done in states where aging inmates are a concern.

Limitations

A potential concern for U.S. prisons is the growing number of inmates that identify as transgender and/or present as intersexed. When dealing with classification, inmates are assigned to facilities and programs based on their exhibited sex. The U.S. prison system largely uses a dichotomous measuring rod when determining whether an inmate's sex is male or female. While not a focus of this analysis, researchers and

practitioners are faced with this dilemma without appropriate policy to guide their classification assignments. As more and more people represent as intersexed or identify as transgender, the criminal justice system will need to adjust the practice of using gender as a dichotomous factor. More data are necessary to provide a more comprehensive analysis of how U.S. prisons are managing this particular population, which ultimately expands the concept of gender to much more than a dichotomous factor.

Age at Prison Admission is not formally addressed within this analysis. Given that results allude to age at prison admission being a factor to influence aging inmate growth, Luallen & Kling's (2014) assertions should be replicated in some fashion to determine its validity over time. By its omission, a true test of Luallen & Kling (2014)'s study was not performed.

Sentence Length was omitted from this analysis because the variables used to calculate it were also used for another variable: lifer. Since the variables for Aday's typology (2003) were needed more for the current analysis, sentence length was dropped. This can pose an issue when determining aging inmate growth. Sentence length was expected to have a positive effect on both outcomes. Future research to ensure that sentence length is tested to allow for a more well-rounded explanation for the outcomes.

Future Directions

A feasibility analysis of geriatric compassionate release should be done. Currently, this option is available in most states in the country but is rarely used. The criteria used in some states is clear, while some states do not allow geriatric

compassionate release unless the inmate also has a terminal illness. While age should not be the only criteria, this option should be considered more than it is. Future research should delve into whether geriatric compassionate release is a viable option.

In addition, evaluation of current state programs and policies is necessary to determine whether they are effective. While state efforts in creating and running programs and policies is a move in the right direction, periodic assessment of those programs and policies should be done to determine whether changes are needed and to ensure the efforts are being used appropriately.

During this dissertation, differences between publicly run versus privately run prisons were not distinguished. Further analysis must be given to this divide. We are, currently, aware that privately-run prisons often provide minimal resources to inmates and have a high turnover in correctional officers. This is often done to maximize their profit margins, again awakening the debate of who has the right to punish. A future study must be undertaken to determine whether privately run prisons have a different set of programs or policies for aging inmates when compared to their public counterparts and to determine whether the percentage of programs is similar in both private and public institutions.

Self-care among aging inmates should be explored more comprehensively. It is unclear whether prison programs are a substitute for or a catalyst to self-care for aging inmates. As stated previously, this exploratory discussion should exhibit divergent processes of self-care between genders. Female inmates, for example, have a more familial way of “doing time” and establish family-like structures within prisons. Along

with this, it should also be analyzed whether unofficial subgroup inclusion impacts self-care. In managing community within prisons, it is unknown whether healthcare and/or self-care are mitigated via unofficial and unmonitored social groups.

A more comprehensive analysis of race and how it affects gender and aging should be undertaken. Inequities do not affect every person in an equal manner. As such, intersectionality should be the focal point of a study to determine how factors (race and gender, for example) contributing to aging inmate growth are affected. It must also be acknowledged that age is a social construct. As such, long term implications of age as a social construct should be explored as it intersects with other factors over time. This will shed light on intersectional issues, particularly aging, race, and gender in this instance, that have been marginalized through traditional feminist theory. Growing rates of inequality on a global scale can be better understood by using intersectionality as an analytic tool.

Finally, international assessment must be done to determine how the U.S. measures up to similarly situated countries. Given that the United States is the world leader in incarceration rates per capita, we should be on par with similarly situated countries. We are not. Global practices on aged inmate confinement and care should be compared to examine differences in prison populations. Ultimately, this will create a blueprint for the road ahead.

REFERENCES

- Acock, A.C. 2014. *A Gentle Introduction to Stata*. Revised Third Edition. College Station, TX: Stata Press.
- Aday, R.H. 1994a. "Golden Years Behind Bars: Special Programs and Facilities for Elderly Inmates." *Federal Probation*, 58(2), 47-55.
- Aday, R.H. 1994b. "Aging in Prison: A Case Study of New Elderly Offenders." *International Journal of Offender Therapy and Comparative Criminology*, 38, 79-91.
- Aday, R. 2003. *Aging Prisoners: Crisis in American Corrections*. Westport, CT: Praeger Publications.
- Aday, R., and Farney. 2014. "Malign Neglect: Assessing Older Women's Health Care Experiences in Prison." *Journal of Bioethical Inquiry Pty Ltd*, 11:359-372.
- Aday, R., and J. Krabill. 2006. "Aging Offenders in the Criminal Justice System." *Marquette Elder's Advisor*, 7(2):237-258.
- Aday, R., & P. Nation. 2001. *A Case Study of Older Female Offenders: Preliminary Report*. Nashville, TN: Tennessee Department of Corrections.
- Aneshensel, Carol S. 2013. *Theory-Based Data Analysis for the Social Sciences*. Los Angeles, CA: Sage Publications.
- Annual Report of the Correctional Medical Authority. 2000. *Incarcerating Elderly and Aging Inmates: Medical and Mental Health Implications*. State of Florida, Department of Corrections.

- Auerhahn, K. 2002. "Selective Incapacitation, Three Strikes, and the Problem of Aging Prison Populations: Using Simulation Modeling to See the Future." *Criminology*, 1(3), 353-388.
- Baran, Mette L. and Janice E. Jones. 2020. "Developing the Research Study: A Step-by-Step Approach." In Baran & Jones (eds). *Applied Social Science Approaches to Mixed Method Research*. Hershey, PA: IGI Global.
- Benda, Brent B. 2005. "Gender Differences in Life-Course Theory of Recidivism: A Survival Analysis." *International Journal of Offender Therapy and Comparative Criminology*, 49(3):325-342.
- Block, Carolyn Rebecca, Arjan A. J. Blokland, Cornelia van der Werff, Rianne van Os, and Paul Nieuwbeerta. 2010. "Long-Term Patterns of Offending in Women." *Feminist Criminology*, 5(1):73-107.
- Britton, Dana. 2011. *The Gender of Crime*. Lanham, MD: Rowman & Littlefield Publishers.
- Brown, Elsa Barkley. 1990. "Womanist Consciousness: Maggie Lena Walker and the Independent Order of Saint Luke." Pp 173-196 in *Black Women in America: Social Science Perspectives*. Edited by Micheline R. Malson, Elisabeth Mudimbe-Boyi, Jean F. O'Barr, and Mary Weyer. Chicago: University of Chicago Press.
- Burawoy, Michael. 1998. "The Extended Case Method." *Sociological Theory*, 16(1):4-33.
- Butler, Judith. 1990. "Bodily Inscriptions, Performative Subversions." Pp. 90-118 in

- Sarah Salih (ed) and Judith Butler. 2004. The Judith Butler Reader. Malden, MA: Blackwell Publishing.
- Calasanti, Toni. 2010. "Gender Relations and Applied Research on Aging." *The Gerontologist*, 50(6): 720–734.
- Chesney-Lind, Meda. 2002. "The Forgotten Offender – Women in Prison: From Partial Justice to Vengeful Equity." In Leone, M. (Ed) *Annual Editions: Corrections*. Guilford, CT: McGraw Hill.
- Chesney-Lind, Meda. 1998. "The Forgotten Offender." *Corrections Today*, 60, 66-72.
- Chesney-Lind, Meda. 1997. *The Female Offender: Girls, Women, and Crime*. Thousand Oaks, CA: Sage Publications.
- Chung, Pil H., and Peter Hepburn. 2018. "Mass Imprisonment and the Extended Family." *Sociological Science*, 5:335-360.
- Clear, Todd and Natasha Frost. 2014. *The Punishment Imperative: The Rise and Fall of Mass Incarceration*. New York, NY: New York University Press.
- Collins, Patricia Hill. 2004. *Black Sexual Politics: African-Americans, Gender, and the New Racism*. New York, NY: Routledge.
- Collins, Patricia Hill. 2000[1990]. *Black Feminist Thought*. New York & London: Routledge.
- Collins, Patricia Hill. 1994. "Shifting the Center: Race, Class, and Feminist Theorizing about Motherhood." Pp. 45-65 in *Mothering: Ideology, Experience, and Agency*. Edited by Nakano-Glenn, Evelyn, Grace Chang, and Lina Rennie-Forcey. New York and London: Routledge.

- Collins, Patricia Hill. 1990. "The Social Construction of Black Feminist Thought." Pp 297-325 in *Black Women in America: Social Science Perspectives*. Edited by Micheline R. Malson, Elisabeth Mudimbe-Boyi, Jean F. O'Barr, and Mary Wyer. Chicago: University of Chicago Press.
- Corwin, P.S. (2001). "Senioritis: Why Elderly Federal Inmates Are Literally Dying to Get Out of Prison." *Journal of Contemporary Health Law and Policy*, 17, 687.
- Cruikshank, Margaret. 2003. *Learning to Be Old: Gender, Culture and Aging*. New York, NY: Rowman and Littlefield.
- Davis, Angela Y. 1983. *Women, Race, & Class*. New York, NY: Vintage Books.
- Drucker, Ernest. 2013. "Drug Law, Mass Incarceration, and Public Health." *Oregon Law Review*, 91:1097-1128.
- DuBois, W.E.B. 2014[1903]. "Of Our Spiritual Strivings." Pp 4-11 in *The Souls of Black Folk*. New York, NY: Millennium Publications.
- Eggleston, Elaine P., and John H. Laub. 2002. "The onset of adult offending: A neglected dimension of the criminal career." *Journal of Criminal Justice*, 30(6):603-622.
- Elder, Glen H. Jr. 1998. "The Life Course as Developmental Theory." *Child Development*, 69(1):1-12.
- Elder, Glen H. Jr., Monica Kirkpatrick Johnson, and Robert Crosnoe. 2003. "The Emergence and Development of Life Course Theory." Pp 3-19 in Mortimer, Jeylan T. and Michael J. Shanahan (eds). *Handbook of the Life Course*. New York, NY: Kluwer Academic/Plenum Publishers.

- Estrada, Felipe and Anders Nilsson. 2012. "Does It Cost More to Be a Female Offender? A Life-Course Study of Childhood Circumstances, Crime, Drug Abuse, and Living Conditions." *Feminist Criminology*, 7(3):196-219.
- Federal Bureau of Prisons. 2015. Federal Prison System Population Actuals.
http://www.bop.gov/about/statistics/population_statistics.jsp
- Florida Department of Corrections. 2018. "FY 2017-18 Annual Report." Tallahassee, FL: Florida Department of Corrections.
- Foster, Holly and John Hagan. 2015. "Punishment Regimes and the Multilevel Effects of Parental Incarceration: Intergenerational, Intersectional, and Interinstitutional Models of Social Inequality and Systemic Exclusion." *Annual Review of Sociology*, 41:135–58.
- Frost, Natasha A., and Todd R. Clear. 2009. "Understanding Mass Incarceration as a Grand Social Experiment." *Studies in Law, Politics & Society*, 47:159-191.
- Frost, Natasha A., Todd R. Clear. 2012. "New Directions in Correctional Research." *JQ: Justice Quarterly*, 29(5): 619-649.
- Garland, David. 2001. *Mass Imprisonment: Social Causes and Consequences*. Thousand Oaks, CA: Sage Publications.
- Giordano, Peggy C. 2010. *Legacies of Crime: A Follow-Up of the Children of Highly Delinquent Girls and Boys*. New York: Cambridge University Press.
- Goetting, Ann. 1983. "The Elderly in Prison: Issues and Perspectives." *Journal of Research in Crime and Delinquency*, July (1983):291-309.

- Gottfredson, Michael R. and Travis Hirschi. 1990. *A General Theory of Crime*. Stanford, CA: Stanford University Press.
- Hagan, John and Ronit Dinovitzer. 1999. "Collateral Consequences of Imprisonment for Children, Communities, and Prisoners." *University of Chicago Press*, 26:121-162.
- Hardy, Melissa A. 1993. *Regression with Dummy Variables*. Newbury Park, CA: Sage Publications, Inc.
- Harris, Heather M. and David J. Harding. 2019. "Racial Inequality in the Transition to Adulthood After Prison." *The Russell Sage Foundation Journal of the Social Sciences*, 5(1):223-254
- Hooyman, Nancy R. 2015. "Social and Health Disparities in Aging: Gender Inequities in Long-Term Care." *Journal of the American Society on Aging*, 38(4):25-32.
- Hurley, Martha H. 2014. *Aging in Prison: The Integration of Research and Practice*. Durham, NC: Carolina Academic Press.
- Hurwitz, Hugh J. 2019. Program Statement on Compassionate Release/Reduction in Sentence: Procedures for Implementation of 18 U.S.C. §§ 3582 and 4205(g). U.S. Department of Justice's Bureau of Prisons, 1-18.
- Lange, Matthew. 2013. *Comparative-Historical Methods*. Los Angeles, CA: Sage Publications, Inc.
- Laub, John H. and Robert J. Sampson. 2003. *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70*. Cambridge, MA: Harvard University Press.

- Long, J.S., and Freese, J. 2014. *Regression Models for Categorical Dependent Variables Using Stata*, Third Edition. College Station, TX: Stata Press.
- Luallen, J., and R. Kling. 2014. "A Method for Analyzing Changing Prison Populations: Explaining the Growth of the Elderly in Prison." *Evaluation Review*, 1-28.
- McCarthy, Kevin E. 2013. "State Initiatives to Address Aging Prisoners." *OLR Research Report*. www.cga.ct.gov/2013-R-0166.htm.
- Mitchell, Maria S. 2019. "The Intersection of Mass Incarceration and Families: The Justice System as It Operates Outside the Vacuum of the Courtroom." *Hennepin Lawyer*, 88(4):28-30.
- Nadel, B. 1996. "BOP Accommodates Special Needs Offenders." *Corrections Today*, 58(6), 76-81.
- National Geographic. 2009. "United States Regions." Retrieved October 26, 2019, <https://www.nationalgeographic.org/maps/united-states-regions/>.
- National Institute of Corrections (NIC). 1997. *Prison Medical Care: Special Needs Populations and Cost Control*. Special Issues in Corrections. Longmont, CO: NIC Information Center.
- National Institute of Corrections (NIC) Videoconference. 2001. *Managing Aging and Terminally Ill Inmates*. Longmont, CO: National Institute of Corrections Academy.
- Pager, Devah. 2007. *Marked: Race, Crime, and Finding Work in an Era of Mass Incarceration*. Chicago, IL: University of Chicago Press.
- Paternoster, Raymond, Charles W. Dean, Alex Piquero, Paul Mazerolle, and Robert

- Brame. 1997. "Generality, Continuity, and Change in Offending." *Journal of Quantitative Criminology*, 13(3):231-266.
- Paternoster, Raymond, Robert Brame, Paul Mazerolle, and Alex Piquero. 1998. "Using the Correct Statistical Test for the Equality of Regression Coefficients." *Criminology*, 36(4):859-866.
- Pettit, Becky and Bruce Western. 2004. "Mass Imprisonment and the Life Course: Race and Mass Inequality in U.S. Incarceration." *American Sociological Review*. 69(2):151-169.
- Rikard, R. V., and Rosenberg, E. 2007. "Aging Inmates: A Convergence of Trends in the American Criminal Justice System." *Journal of Correctional Health Care* 13(3):150-162.
- Sampson, Robert J. and John H. Laub. 1993. *Crime in the Making: Pathways and Turning Points Through Life*. Cambridge, MA: Harvard University Press.
- Slevin, Kathleen H. 2015. "Book Review: Women in Later Life: Critical Perspectives on Gender and Age." Review of Women in Later Life: Critical Perspectives on Gender and Age by Martha Holstein. *The Gerontologist*, 55 (5).
- Stake, Robert E. 1994. "Case Studies." Pp. 236-247 in *Handbook of Qualitative Research*, edited by N.K. Denzin and Y.S. Lincoln. Thousand Oaks, CA: SAGE Publications, Inc.
- StataCorp. 2018. Stata: Release 15.1. Statistical Software. College Station, TX: StataCorp LLC.
- StataCorp. 2019. Stata Base Reference Manual: Release 16. College Station, TX:

StataCorp LLC.

Sutherland, Edwin H. and Donald R. Cressey. 1974. "Characteristics of the Criminal Law." Pp. – in *Crime and Criminals: Contemporary and Classic Readings in Criminology*, edited by F. R. Scarpitti, A. L. Nielsen and M. J. Miller. Los Angeles, CA: Roxbury Publishing Co.

Travis, Jeremy, Bruce Western, and Steve Redburn. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. Washington, DC: The National Academies Press.

Treiman, D.J. 2009. *Quantitative Data Analysis: Doing Social Research to Test Ideas*. San Francisco, CA: Jossey-Bass.

U.S. Census Bureau. 2013. "Current Population Survey: The Older Population in the United States: 2012." *Annual Social and Economic Supplement*, <http://www.census.gov/population/age/data/2012.html>.

U.S. Department of Justice (DOJ). Office of Justice Programs. Bureau of Justice Statistics. 2014. National Corrections Reporting Program, 2000-2012. ICPSR34984-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2014-03-13. <http://doi.org/10.3886/ICPSR34984.v1>

Wildeman, Christopher And Sara Wakefield. 2014. "The Long Arm Of The Law: The Concentration Of Incarceration In Families In The Era Of Mass Incarceration." *Journal Of Gender, Race & Justice*, 17(2): 367-390.

West, Candace and Don H. Zimmerman. 1987. "Doing Gender." *Gender &*

Society 1(2):125-151.

Western, Bruce. 2006. *Punishment and Inequality in America*. New York: Russell Sage Foundation.

Whitbourne, Susan Krauss and Jamila Bookwala. 2015. "Gender and Aging: Perspectives from Clinical Geropsychology," in Peter. A. Lichtenberg, Benjamin T. Mast, Brian D. Carpenter, and Julie Loebach Wetherell (Eds). APA Handbook of Clinical Geropsychology: History and Status of the Field and Perspectives on Aging, *American Psychological Association*, 1:443-458.

Williams, M. E., and R.V. Rikard. 2004. "Marginality or Neglect: An Exploratory Study of Policies and Programs for Aging Female Inmates." *Women and Criminal Justice*, 15(3/4):121-141.

APPENDIX A

EXPLANATION OF OFFENSE TYPES

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
Blackmail/ intimidation/ extort	Unarmed robbery	Drug Trafficking - heroin	Murder	Parole violation	Habitual offender	Immigration violation (e.g. harboring, smuggling, illegal entry)
Blackmail/ intimidation/ extort, attempted	Unarmed robbery, attempted	Drug Trafficking – heroin, attempted	Assault with intent to kill	Probation violation		Illegal entries
Blackmail/ intimidation/ extort, conspiracy	Unarmed robbery, conspiracy	Drug Trafficking – heroin, conspiracy	Conspiracy to commit murder			
Escape from custody	Burglary	Drug Trafficking – cocaine/crack	Unspecified homicide-willful kill			
Escape from custody, attempted	Burglary, attempted	Drug Trafficking – cocaine/crack, attempted	Unspecified homicide – attempted/ conspiracy			
Escape from custody, conspiracy (includes harboring)	Burglary, conspiracy	Drug Trafficking – cocaine/crack, conspiracy	Voluntary/ nonnegligent manslaughter			

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
Flight to avoid prosecution	Arson	Drug Trafficking – other	Voluntary/ nonnegligent manslaughter, attempted/ conspiracy			
Flight to avoid prosecution, attempted	Arson, attempted	Drug Trafficking – other, attempted	Manslaughter, vehicular			
Flight to avoid prosecution, conspiracy	Arson, conspiracy	Drug Trafficking – other, conspiracy	Manslaughter, vehicular, attempted			
Riot	Auto theft	Drug Trafficking – marijuana	Manslaughter, vehicular, conspiracy			
Riot, attempting to incite	Auto theft, attempted	Drug Trafficking – marijuana, attempted	Involuntary manslaughter			
Riot, conspiracy to incite	Auto theft, conspiracy	Drug Trafficking – marijuana, conspiracy	Attempted manslaughter			
Contempt of court/violate protection or rest order/fail to pay fines	Forgery/fraud	Drug Trafficking – unspecified	Manslaughter, non vehicular, conspiracy			
Other court offenses (e.g. Bond jump, fta, intimidate witness, perjury, tampering)	Forgery/fraud, attempted	Drug Trafficking – unspecified, attempted	Kidnapping/ abduction			

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
Other court offenses, attempted	Forgery/fraud, conspiracy	Drug Trafficking – unspecified, conspiracy	Kidnapping/abduction, attempted			
Other court offenses, conspiracy	Grand larceny/theft, \$200+	Drug possession/use - heroin	Kidnapping/abduction, conspiracy			
Minor traffic offenses	Grand larceny/theft, \$200+, attempted	Drug possession/use – heroin, attempted	Forcible rape			
Driving while intoxicated	Grand larceny/theft, \$200, conspiracy	Drug possession/use – heroin, conspiracy	Forcible rape, attempted			
Driving under the influence – alcohol/unspecified	Petty larceny/theft, under \$200	Drug possession/use – cocaine/crack	Forcible rape, conspiracy			
Driving under the influence – drugs	Petty larceny/theft, under \$200, attempted	Drug possession/use – cocaine/crack, attempted	Statutory rape			
Family offenses	Petty larceny/theft, under \$200, conspiracy	Drug possession/use – cocaine/crack, conspiracy	Statutory rape, attempted			
Drunk/vagrant/disorderly conduct	Larceny/theft value unknown	Drug possession/use – other	Statutory rape, conspiracy			
Offense against morals/decency	Larceny/theft value unknown, attempted	Drug possession/use – other, attempted	Sexual abuse			

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
Offense against morals/decency, attempted	Larceny/theft value unknown, conspiracy	Drug possession/use – other, conspiracy	Sexual abuse, attempted			
Offense against morals/decency, conspiracy	Embezzlement	Drug possession/use – marijuana	Sexual abuse, conspiracy			
Obstruction of law enforcement	Embezzlement, attempted	Drug possession/use – marijuana, attempted	Lewd act with a child			
Obstruction of law enforcement, attempted	Embezzlement, conspiracy	Drug possession/use – marijuana, conspiracy	Lewd act with a child, attempted			
Obstruction of law enforcement, conspiracy	Receiving stolen property	Drug possession/use – unspecified	Lewd act with a child, conspiracy			
Invasion of privacy	Receiving stolen property, attempted	Drug possession/use – unspecified	Armed robbery			
Commercialized vice (e.g. gambling, prostitution)	Receiving stolen property, conspiracy	Drug offense unspecified – heroin	Armed robbery, attempted			
Contributing to the delinquency of a minor	Stolen property trafficking	Drug offense unspecified – cocaine/crack	Armed robbery, conspiracy			
Liquor law violations excluding drunkenness and dwi	Stolen property trafficking, attempted	Drug offense unspecified – other	Forcible sodomy			

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
Public order offenses	Stolen property trafficking, conspiracy	Drug offense unspecified – marijuana	Attended forcible sodomy			
Public order offenses, attempted	Destruction of property	Drug offense unspecified – unspecified (e.g. forging prescription, possess drug paraphernalia)	Conspiracy to commit forcible sodomy			
Public order offenses, conspiracy	Destruction of property, attempted		Aggravated assault			
Juvenile Offenses	Destruction of property, conspiracy		Aggravated assault, attempted			
Felony unspecified	Hit and run driving – property damage		Aggravated assault, conspiracy			
Felony unspecified, attempted	Unauthorized use of a motor vehicle		Assault on a public safety officer			
Felony unspecified, conspiracy	Unauthorized use of a motor vehicle, attempted		Assault on a public safety officer, attempted			
Misdemeanor unspecified	Unauthorized use of a motor vehicle, conspiracy		Assault on a public safety officer, conspiracy			

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
Other/unknown offense	Trespass against property		Hit and run with bodily injury			
Regulatory offense	Trespass against property, attempted		Hit and run with bodily injury, attempted			
Tax law	Trespass against property, conspiracy		Hit and run with bodily injury, conspiracy			
	Other property offenses, other types		Child abuse			
	Other property offenses, attempted		Child abuse, attempted			
	Other property offenses, conspiracy		Child abuse, conspiracy			
	Possession of burglary tools		Violent offenses – other			
	Possession of burglary tools, attempted		Weapons offense			

All Other Offenses	Property Offense	Drug Offense	Violent Offense	Parole or Probation Violation	Habitual Offender	Immigration Violation
	Possession of burglary tools, conspiracy		Weapons offense, attempted			
	Bribery excluding public officer		Weapons offense, conspiracy			
	Bribery excluding public officer, attempted					
	Bribery excluding public officer, conspiracy					
	Embezzlement					
	Fraud					
	Forgery					
	Counterfeiting					
	Racketeering/ extortion					

APPENDIX B
SURVEY QUESTIONS

Program and Policy Implications for the Aging Inmate Population

1. In what state do you currently work?
2. What is the name of the facility where you currently work?
3. Which of the following is the designation for your facility?
 - a. Public
 - b. Private
 - c. Other: please specify _____
4. What is your job title?
5. How many years have you worked for the Department of Corrections (in this and/or any other state)?
6. “Aging inmates” or “older inmates” typically refer to inmates age 50 or older. Does your state or correctional institution have any specific policies and/or program(s) relating specifically to aging inmates?
 - a. If yes, proceed to question #7.
 - b. If no or not sure, go to question #17.
7. Does your state DOC or the correctional institution where you work have any policies or programs specific to aging **male** inmates?
 - a. If yes, proceed to question #8.
 - b. If no or not sure, go to question #12.
8. Please describe these policies and/or programs, whether medical or non-medical.
9. Overall, relative to policies/programs specific to aging **male** inmates, to what extent are prison resources impacted?
 - a. Not at all
 - b. A little
 - c. Moderately
 - d. Alot
 - e. Extremely

10. Overall, relative to policies/programs specific to aging **male** inmates, prison resources are impacted:
- Positively
 - Negatively
 - Not significantly positively or negatively
11. What types of resources are **negatively** impacted? (Please check all that apply.)
- Monetary
 - Correctional Staff
 - Medical Staff
 - Medical Supplies
 - Housing
 - Recreational
 - Administrative
 - Other_(please describe):

12. Does your state DOC or the correctional institution where you work have any policies or programs specific to aging **female** inmates?
- If yes, go to question #13.
 - If no or not sure, go to question #17.
13. Please describe these policies and/or programs.
14. Overall, relative to policies/programs specific to aging **female** inmates, to what extent are prison resources impacted?
- Not at all
 - A little
 - Moderately
 - A lot
 - Extremely
15. Overall, relative to policies/programs specific to aging **female** inmates, prison resources are impacted:
- Positively
 - Negatively
 - Neither positively or negatively
16. What types of resources are **negatively** impacted? (Please check all that apply.)
- Monetary
 - Correctional Staff
 - Medical Staff
 - Medical Supplies
 - Housing

- f. Recreational
- g. Administrative
- h. Other (please describe): _____

17. Please describe any new programs/policies you feel would be beneficial for older inmates and/or your correctional institution or state DOC.

18. Would you agree to be contacted by the researchers for additional information relative to policies and/or programs specific to aging inmates via e-mail, phone, or regular mail?

- a. Yes (Please complete the contact information below. Thank you for your time. Please click “Submit” before exiting.)
- b. No (This completes the survey. Thank you for your time. Please click “Submit” before exiting.)

19. Please list your contact info below.

- a. Name:
- b. Name of Facility:
- c. Address:
- d. Email address:
- e. Phone number: