Underreported Yet Overcrowded: Negligent Deaths and Prison Overcrowding in the Context of Missing Prison Data in the United States

Chloe Sellers

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doi: https://doi.org/10.57709/35375321
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the Context of Missing Prison Data in the United States

by

Chloe Sellers

Under the Direction of Daniel Pasciuti, PhD

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
Master of Arts
in the College of Arts and Sciences
Georgia State University
2023
ABSTRACT

With the highest incarceration rate in the world, the inability to provide adequate health care and facilities in United States prisons is paramount, especially given unequal incarceration rates by race. This study analyzes 1998 and 1999 National Prisoner Statistics from the U.S. Department of Justice. Using the context of federal funding incentives and truth-in-sentencing laws, which drastically increased sentence lengths and overcrowding, this study explores the relationship between overcrowding and unnatural deaths among incarcerated populations at the state-level. The inability of United States prisons to address health and safety needs and the overwhelming lack of reporting and preventable deaths among state and federal-level prisons is cause for concern about the operations of these facilities. With COVID-19 posing new challenges to disease prevention and safety, the impacts of overcrowding and its links to negligent death in prisons, this topic is as relevant an issue today as it was twenty years ago.

INDEX WORDS: Negligent Death, Prison, Overcrowding, Race
Underreported Yet Overcrowded: Negligent Deaths and Prison Overcrowding in the Context of Missing Prison Data in the United States

by

Chloe Sellers

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Office of Graduate Services
College of Arts and Sciences
Georgia State University
May 2023
DEDICATION

Thank you to my dad, my godmother, and my girlfriend for their constant support in all aspects of life. I would not have been able to achieve any of my accomplishments in life without them.
ACKNOWLEDGEMENTS

Thank you to Dan, Raeda, and Eric – my committee – for the encouragement, patience, willingness to always help, and constructive criticism. I could not have completed this thesis without you all.
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1 INTRODUCTION

People are dying within prison facilities at drastic rates, and it has not been widely discussed. It was brought to the forefront of popular discussion very briefly during the onslaught of COVID-19 within news coverage and main stream media outlets detailing the conditions during that time (Marquez et al. 2021). Many factors contributed to COVID-19 deaths. One of which was overcrowding which contributed to the rapid spread of the disease (Burki 2020). To make matters even worse, prisons did not have the medical facilities to adequately respond and treat those who contracted the virus (Burki 2020). Often prison populations had a grievous experience during the height of the COVID-19 pandemic with a death rate double that of the general population (Marquez et al. 2021). California, Florida and Texas had the top three highest death rates in the country, averaging around 41,000 deaths per 100,000 total population in 2021 (Anon 2023).

In her book Are Prisons Obsolete? Davis argues for the abolition of prisons (Davis 2003). Building from the exponential prison expansion from the 1980s to the late 1990s, and the development of the prison industrial complex, Davis argues that there has been an increase in the previous decades in economic and political investment into policing and punishment. Along with this expansion, she discusses the disproportionate rates at which Black and minority groups are imprisoned. For the lowest level offenses, Black and Native American youth are confined at over three times the rate of white youth (Prison Policy Initiative n.d.). Davis argues that because of the racial makeup of prisons, the public is uninterested in the ways in which prisons function. I argue that this underlying racial framework also accounts for part of the reason why there has been so little research on negligent death within associated with prisons.
Durkheim’s theory of prisons as a means of social control and punishment has been widely discussed within the field of prison reform (Durkheim 1972). Durkheim focuses on punishment as a means of rehabilitation and reaffirming the collective consciousness (Burkhardt and Connor 2016). Prisons within the United States, however, do not effectively serve as a means for rehabilitation (Davis 2003). Angela Davis argues that prisons are a “legal vehicle” for whites to continue to extort Black labor through the use of convict leasing as provided within the thirteenth amendment (Davis 2003). This was then expanded upon with the development of prison manufacturing. Many items that are advertised as MADE IN USA are often the result of prison labor (Cao n.d.). Much research has been written on the theory of crime on society, but I argue that those theories do not consider the impact of prisons on prisoners effectively (Heidensohn 1989), (Zembroski 2011), (Glaser 1978). What consideration has been made on the health of prisoners has been on the spread of disease and infection while serving time and then how that affects a person’s life after prison (Gelman 2020).

Therefore, I propose that there is a phenomenon, which I call negligent death, that occurs in prisons here in the United States. Negligent deaths will be generally defined by rates of overcrowding, rate of African Americans within the incarcerated population, and sentencing policy that influence rates of preventable or negligent deaths in prison populations.

Overcrowding + Rate of African Americans within the Inmate Population + Sentencing Policy = Phenomenon of Negligent Death

I argue that the health of prisoners within prison and the role of the system in the creation of negligent death for prisoners must be placed at the forefront of any research.
This study will be the first to define and begin to develop an understanding of negligent death in the prison population at the state level in the United States, which places the onus on health outcomes on the institution of prisons within the U.S., not on the individual. Research on health in prison has yet to extensively study the deaths within these institutions at the institutional level. My study contributes to the field by focusing on the ways in which health outcomes and preventable deaths are affected on a state-by-state basis and placing these adverse deaths in a racial framework which understands prisons as a mechanism of controlling Black bodies and a means of profit through overcrowding facilities.

2 LITERATURE REVIEW

2.1 Prison Expansion

There are several theories as to why there has been an explosion in the prison population. According to Pfaff (2008), the four broad groups have been generally categorized into crime theory, demographics theory, economics theory, and political theory. Four more, less overarching, causes that have been discussed as well are “the deinstitutionalization of the mental health system, the expansion of prison capacity, the imposition of population caps by federal courts, and the fiscal health of the states” (Pfaff 2008, pg. 553).

This paper will focus primarily on political theory, the ways in which state and federal policies have impacted incarceration rates. Political theory is paramount in this paper in relation to the incorporation of strictness in sentencing policy. The second theory key to my thesis is demographics theory, the ways in which race and policy implementation has impacted incarceration rates. Demographics relates back to racial capitalism and the ways in which incarceration functions as a racialized system to exploit Black bodies. The third theory that will be used in my thesis is economics theory, the ways in which financial incentives changes
incarceration rates (Pfaff 2008). Economics theory is central to prison expansion as well as the profit motive that is present with privatization and the use of prison labor.

2.2 Racial Capitalism

Prison expansion can be tied back to racial capitalism and the use of Black bodies for profit. Incarceration itself has a deeply connected history to slavery and the exploitation of labor (Smith and Hattery 2008). This can be most clearly displayed by the allowance of prison labor. The thirteenth amendment was passed to outlaw slavery and involuntary servitude, except as punishment for a crime (U.S. Const., Amend. 13, §1). To that end, the thirteenth amendment provided a loophole to continue the allowance of free labor, so long as there was a criminal conviction.

Davis illustrates the role this plays in the prison-industrial complex in her book Abolition Democracy: Beyond Empire, Prisons, and Torture. She argues that it serves as means to, “earn profit while producing the means to maim and kill human beings and devour social resources” (Davis 2011). It also effectively disenfranchises the Black community, since they make up a disproportionately large portion of the incarcerated population in the United States. Incarceration has notable effects outside of the prison system. For example, while prison populations are included in population totals for drawing voting districts within states but are then not allowed to vote in those same elections.

The current criminal legal system and incarceration has been developed to sustain the goals of slavery and Jim Crow segregation, the exploitation of labor and social segregation (Wacquant 2001). Prisons serve as a means to create an underclass of those labeled as deviant by society. Policing is more prevalent in African American neighborhoods, which makes it more likely for them to end up incarcerated. This has created a narrative of Black bodies being
synonymous with criminality (Wacquant 2001). Bonilla-Silva discusses the use of new language that has emerged to serve maintain previously existing racial frameworks, specifically within the COVID-19 pandemic (Bonilla-Silva 2022). One of which, the ideology of colorblind racism, works to hide the clear structural systems that are in place to maintain racial inequality. This was made clear during the pandemic with the difference in racial mortality rates due to COVID-19 (Bonilla-Silva 2022). Colorblind racism functions as a way for people to say that they “don’t see color” and therefore are not racist. By obscuring color and acting like a person’s race does not impact them, only serves to enable and maintain racial inequality. It allows the average person to ignore the existing frameworks. During COVID-19 African American populations were dying at much higher rates than Whites. By maintaining this ideology of colorblindness, people were able to actively ignore that those within the Black community were being affected by COVID-19 at disproportionate rates.

Moynihan’s idea of “social pathologies” as individual characteristics has led to many forms of research (Moynihan 1965). Due to this framework, many previous criminology and sociological research surrounding incarceration has focused on an individual level of research and responsibility. While these did take into account the institutional role and impact of the system, it would be much more effective to measure the institution itself. To examine data based on meso-level measures, rather than individuals, this thesis utilizes state level data.

2.3 Previous Research

Of the scholarship examining health and death rate within United States prisons, there are substantive critiques outlined by Camp, Gaes, and Saylor (2002) critique previous studies’ comparison between public and private prisons and go in depth into how previous studies used surveys that were inherently flawed. Results from the study Camp et al. conducted showed that
not all measures were significant when comparing private versus public prisons. For example, most variation within effectiveness of staff was attributed to individual influences, not the prisons themselves. Camp et al. account for the variability between individual case responses as well as within the institution itself that could skew the results of previous surveys and offer an alternative methodology to correct this bias.

This is a common issue when looking at individual and institutional level data (Camp et al.), (Saylor n.d.). The massive amounts of variability that can occur when using individual micro level data have significant shortcomings when trying to differentiate meso-level processes. Individual influences tend to contribute most to the results of studies and thus the institutional role of prisons is obscured. To address this shortcoming and to focus the unit of analysis, this study uses state level data. State level data is more standardized in terms of funding and lack of individual influence, and we can create more generalizable conclusions, if given adequate data. Since my study will be using state-level data, I will be including average sentence lengths and the contributing factors to those sentences.

2.4 Policy and Implications

*Truth in Sentencing in State Prisons* by Paula M. Ditton details the history of “tough on crime” policy from 1970 through the 1990’s. Most of these laws were designed to force inmates to serve the majority of their sentence. This meant that parole eligibility was practically eliminated. When requiring inmates to serve 85% of their sentence, by the time they’ve applied for parole and been approved, they will likely have served the entirety of their sentence. Most truth in sentencing laws require that offenders serve at least 85% of their sentence. Using data from the Violent Offender Incarceration and Truth-in-Sentencing Incentive Grants program, data shows state level information on time served and broad definitions for common violent offenses,
detailing sentencing requirements for eligibility for truth-in-sentencing grants (Faley, 2019). Ditton shows the effects of “tough on crime” laws over time and how it differed between states. Federal grants for longer served prison sentences were shown to influence laws in states. This in turn affected the volume of prisoners in facilities. This increase goes back to racial capitalism and the use of Black bodies for profit, by incarcerating them for longer periods of time and increasing overcrowding. Adding to this understanding are the works of Chen (2001) who expands on this research by conceptualizing the “strictness” of sentencing policy. Although Chen emphasizes the lack of short-term impact at the time of the analysis, they allude to potential long-term effects, due to the extension of sentence length. Because of these policies and the increase in sentence length, this has led to even greater prison expansion, which was the catalyst for prison policy to begin with. Prison development and truth-in-sentencing policy are self-reinforcing and continue the cycle of expansion.

2.5 Violence and Overcrowding

Due to the increase of sentence lengths, in large part to the introduction of truth-in-sentencing laws, the rate of overcrowding in the United States has skyrocketed (Guetzkow and Schoon 2015). Higher rates of overcrowding are correlated with higher rates of violence within prisons (Edgemon & Clay-Warner, n.d.), which can cause increased levels of mental distress. Being in prisons with poor conditions for an extended period of time can have an extremely negative impact in an inmate’s mental health. Edgemon and Clay-Warner study the relationship between prison conditions with the effect on mental health symptoms. People are also shown to have deteriorated mental health after being in prison for long periods of time and this can likely lead to suicide or violence against other inmates (Schnittker et al., 2012).
According to Guetzkow & Schoon, after the implementation of overcrowding legislation, led to a massive increase in the development of prisons and an increase in prison capacity (2015). The increase in prison capacity is a salient example of racial capitalism at work to generate profit. Due to the increase in prisons, the development of an even higher rate of incarceration thanks to the promotion of “tough-on-crime” legislation occurred (Guetzkow & Schoon 2015). Because of the compounding factors of policy and expansion, violence and overcrowding has greatly increased within these institutions. The increase in violence has likely led to an increase in negligent deaths within these institutions.

2.6 Health and Health Facilities

Access to medical treatment while incarcerated is extremely difficult, whether it be from a lack of funding or negligence by the institution (Robbins 1999). Another factor to consider is the nature of being incarcerated itself as prisons provide breeding grounds for infection and disease due to the close quarters of inmates, which is often exacerbated by overcrowding. Many studies have been conducted on the prevalence of HIV and tuberculosis within prison populations (Massoglia 2008), (Dolan et al. 2015), (Bose 2018). According to Massoglia (2008), incarceration has a negative effect on health.

The use of health management systems is another example of racial capitalism at work by neglecting those in prison for the sake of maximizing profits. Since 1999, four of the United States’ largest healthcare management companies, American Service Group (ASG), Correctional Medical Services (CMS), Prison Health Services (PHS) and EMSA Correctional Care, have all merged, through various contracts, into one organization: Corizon Health. The merging of corporate healthcare companies creates less incentive to provide adequate care when these monopolies form. A primary goal of this consolidation has been to reduce overall healthcare
costs through increasing scale and redundancy. This can be seen in the reduction of facilities from the merger of Corizon Health (Robbins 1999).

Another factor for health outcomes for those incarcerated is the allowance in many states of physicians with a history of misconduct to practice in correctional facilities. There have been several accounts across the country of for-profit health management organizations, like Corizon (formerly Correctional Medical Services), to allow physicians who have had their licenses previously revoked, to practice medicine within their facilities. There have been multiple accounts of previous wrongful death suits, cases of sexual misconduct, and lack of medical licensure in the backgrounds of physicians allowed to practice medicine in Corizon facilities (Skolnick 1998). Corizon is the largest for-profit health management organization in the United States, with over 378,000 prisoners across 28 states in their care (Dober 2014). Corizon was sued for malpractice 660 times between 2011 and 2016. With the rampant negligence in hiring practices within corporations like these, they significantly impact health outcomes and negligent death rates within these facilities (Skolnick 1998).

There are many accounts of treatment being delayed or even denied as well as inadequate medications being administered for serious illnesses (Robbins, 1999). This negligent behavior has no doubt led to a myriad of deaths that could have been prevented. The cost cutting incentives of for-profit organizations has led to a mismanagement of inmate healthcare and an increase in wrongful death and negligence lawsuits (Robbins, 1999). The United States needs a better alternative to privatized healthcare in prisons. Cost cutting measures are not worth the lives of our incarcerated population and they do not deserve abuse at the hands of unqualified physicians. This also contributes to the issue of illness and overcrowding. These effects of racial capitalism go back to Davis and how prisons “earn profit while producing the means to maim
and kill human beings and devour social resources” (Davis 2011). While cost cutting and privatization are beyond the scope of direct analysis within this study, their underlying exacerbation of medical care and negligent deaths require further research and examination.

2.7 Negative Health Outcomes

Schnittker, Massoglia, and Uggen (2012) study the negative effects of unreasonably long prison sentences and the relationship between incarceration and psychiatric disorders. Schnittker et al. begin with a conceptual model to help illustrate the complex and often overlapping relationships between variables to illustrate the confounding variables that may occur when looking at statistical outputs. Results showed that former inmates are more likely to have issues with substance abuse, anxiety, mood disorders, and have problems with impulse control. There are two sets of incarceration coefficients in each model, lifetime and 12-month disorders. This shows the difference between the onset of these disorders between formerly incarcerated versus never incarcerated people. Psychiatric disorders are higher among the formerly incarcerated, and they have onsets of these disorders at much younger. These results show drastically negative impacts on former inmates. The study conducted by Schnittker, Massoglia, and Uggen (2012) is another way to help illustrate the negligence within prisons that can lead to mental distress and eventually to negligent death.

In the early stages of this thesis there was an intention to include data on health management companies. Due to the lack of consistent reporting on location of health management companies and the associated data, those data points were not included in this thesis. While health management company data would be of paramount importance for this analysis, the lack of accessibility to the data associated with those companies is telling in itself.
2.8 Negligent Death Rates

Other critics have called the use of health management services as a form of cruel and unusual punishment (Robbins, 1999). This falls under the standard of “deliberate indifference” as established by the Supreme Court in 1976, in *Estelle v. Gamble* (Robbins, 1999). Furthermore, according to Robbins, “Courts have evaluated claims of constitutional violations in cases in which prisoners have challenged the adequacy of their medical treatment under the "deliberate indifference" standard, first announced by the Supreme Court in 1976, in *Estelle v. Gamble*” (Robbins 1999). This was established under the reasoning that when prison staff actively ignore or are indifferent to the medical needs of the prisoners, it would be classified as a violation of their eighth amendment right against forms of cruel and unusual punishment.

Furthermore, according to *Anacata v. Prison Health Services* in the United States Court of Appeals for the Eleventh Circuit, when medical services are delayed for non-medical reasons, that qualifies as deliberate indifference (11th Cir. 1985). One relevant non-medical reason would be financial considerations, like the incentive to cut costs and increase profits within a private company. Thus, according to Robbins, the use of health management companies in prisons for the sake of cutting costs should be considered cases of deliberate indifference at the hands of the institution (Robbins 1999).

Thus far, there is little to no empirical data analysis on negligent death rates, let alone overall death rates, in prisons here in the United States. This study will help provide some insight into this specific area, by making the first step into understanding institutional factors in negligent death.
The following research questions and hypotheses are tested within this thesis:

R₁: How does the type of institution affect negligent death – public versus private facility?

   H₁: There is likely going to be a linear relationship between negligent death rates and the increased rates of privatized facilities in the state.

R₂: Does policy (strictness in sentencing) relate to negligent death rate?

   H₂: There will likely be a linear relationship between negligent death rates and strictness of sentencing policy, this being the use of three strikes laws, truth in sentencing laws, and maximum sentence length.

R₃: How does overcrowding affect negligent death – comparison between overcrowded states and non-overcrowded states?

   H₃: There will likely be a linear relationship between negligent death and rates of overcrowding within states, where states with the highest rates will correspond to high negligent deaths.

R₄: Due to the overrepresentation of African Americans in prison populations, there will likely be higher rates of negligent death.

   H₄: The higher the proportion of African Americans within the inmate population, will have a higher rate of negligent death.
3 DATA AND METHODS

3.1 Missingness

One significant problem within prison data, and especially death statistics in prison, is underreporting and missing data. Prison statistics are well known for having missing data (Pfaff 2008). Most surveys are voluntary because they are not mandated by the government. This leads to a lot of underreporting, especially when dealing with death statistics. Missingness also occurs due to misreporting because there is no standard way of reporting prison data, especially prison health data. An example of misreporting that occurred during COVID-19, was institutions labeling deaths as “releases” from the facility (Prison Policy Initiative). States and individual prisons can report inaccurate statistics or report statistics in incorrect categories or mislabel them entirely. So, most of the time, we are only aware of what states are willing to disclose. There is no reliable way to tell whether this is deliberate misreporting or a result of human error. However, there is a distinct pattern across the United States of missing data where certain states and categories are routinely missed (Faley n.d.). This cannot be the result of random missingness and likely this is a way for states and individual facilities to disguise the neglect that occurs (United States Department Of Justice. Office Of Justice Programs. Bureau Of Justice Statistics 2017).

3.2 Dataset

The dataset used in this study is from the National Prisoner Statistics, 1978-2018. The data was collected through a web based and mailed questionnaire to each state in the United States and catalogs the number of inmates held within federal, state-, and privately-owned prisons. For the purposes of this study, data was only drawn from the years 1998 and 1999. The decision to draw only from these two years was based upon the lack of reporting in recent years
for capacity rates, which obscures and prevents the calculation of a viable measure of prison overcrowding. The most recent National Prisoner Statistics survey, at the time of data analysis in this study, was published in December of 2020. By using 1998 and 1999 this analysis could be used to analyze the most recent perspective in the United States with states being asked to report capacity rates and designed capacity rates. Since then, these questions have not been asked in the National Prisoners Statistics survey, which is odd, considering the exponential prison expansion that has occurred in recent years.

The National Prisoner Statistics dataset is composed almost entirely of continuous numerical responses. This is extremely unusual when conducting a survey of this magnitude. Initially, this data had an n of 50 states. Then I created a long and wide dataset to separate sex and combine to the two years, 1998 and 1999. This ultimately led to the possibility of 100 total cases. The final n was 47 with 53 missing observations. I have included a table for all the states by sex that were able to be included in this study.

Predominantly missing is the Female portion of the state populations. Most often we are missing the state altogether, but if a state is present, it is only the male population represented.
Table 1: Observations

<table>
<thead>
<tr>
<th>STATE</th>
<th>SEX</th>
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<td>AR</td>
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<td>NC</td>
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<tr>
<td>NE</td>
<td>Male</td>
</tr>
</tbody>
</table>
The wide dataset accounted for the fact that certain questions were only asked in specific years. This will be considered systematic missingness within the overall dataset and may create bias within the regression. The long data allowed for the creation of two observations for each variable, one for male and one for female, like Georgia Male and Georgia Female. This created the new unit of analysis, state by sex. Additional information was added from the Violent Offender Incarceration and Truth-in-Sentencing Incentive Grants program to incorporate stricter
sentencing policies into the analysis. Data was manually input directly from the grants program into Microsoft Excel. This was then converted to STATA and matched to each state used in this study.

3.3 Variables

The dependent variable is negligent death rate. It is composed of death by suicide, accidental injury, inmate homicide, and other homicide within their jurisdiction. This was then divided by the total number of inmate deaths, excluding executions within their jurisdiction. This created the dependent variable that was used, with total death rate used as a separate control variable. This allowed for the creation of a negligent death rate per 1,000 deaths, while excluding executions. This is shown in the equation below.

\[
\text{Negligent Deaths per 1,000 Deaths (Excluding Executions) Equation:} \\
\frac{\text{Suicide + Accidental Injury + Inmate Homicide + Other Homicide}}{\text{Total Death - Executions}} * 1000
\]

These variables were chosen when conceptualizing negligent death because these types of deaths can reasonably be prevented with proper care and staffing within prisons. The independent variables are capacity rates, rate of overcrowding, the rate of African Americans within the population, maximum sentence length, truth in sentencing laws according to federal requirements, and the presence of three strikes laws. The control is total death rate, which was the raw score of total deaths divided by jurisdiction totals.

The creation of the strictness in sentencing policy variables was done using data from Violent Offender Incarceration and Truth-in-Sentencing (VOI/TIS) Incentive Program. Data was drawn for the average maximum sentence lengths in each state, how extensive a state’s truth in
sentencing laws are, and whether the state implemented three strikes laws. Maximum sentences’ variables, data was divided into ranges; 40-91 months, 92-144 months, and 145-197 months. These were separated into separate dummy variables since they are categorical with 40-91 months as the reference category.

During this time, there were monetary incentives offered by the federal government to encourage the passage of truth in sentencing laws (Chen n.d.). So, for the truth in sentencing laws variable, data was defined as having met 85% of the maximum federal requirements for funding, 50% of the maximum federal requirements for funding, or meeting 100% of the minimum federal requirements. These were then recoded into separate dummy variables as well with meeting 100% of the minimum federal requirements as the reference category. The three strikes law variable was defined as 0 for not having any three strikes laws or 1 for having three strikes laws. These variables are related to one another, but a test using the variance inflation function was conducted to determine no serious issues of multicollinearity. These variables are included to show distinct aspects of the system and are measured individually.
When conceptualizing capacity rate, I used a conservative and liberal estimate. The conservative estimate was generated using the custody totals -- “How many inmates under your custody -- Exclude inmates held in local jails, private facilities and facilities in other jurisdictions. Include inmates held in any public facility run by your state, including halfway houses, camps, farms, training/treatment centers, and hospitals.” The liberal estimate was generated using the jurisdiction totals – “On December 31, how many inmates under your jurisdiction?” The maximum for the conservative estimate was 1.88 and the maximum for the liberal estimate was 2.16, which shows that at best there are states at almost two times the capacity within their facilities than what was originally designed. At worst, they are over two times the capacity of the original design of the facilities within that state. This led to the creation of the dummy variable for the rate of overcrowding to separate the states with facilities over 100% capacity. This was to simply identify states that had large rates of overcrowding, one being
they were overcrowded, zero being they had no overcrowding. Distribution of negligent death rates differs between states that are over-capacity vs not over capacity. In my data, 40.43% of prisons showed overcrowding by this measure.

I also created a variable to show what states used overflow facilities. This was done by combining both variables for federal – “Provide a count of all inmates under the jurisdiction of your State who were housed in another State or in a Federal prison on December 31 specifically because there was no room for them in state correctional facilities. Enter the name of each state in which the inmates were housed, and the number held in each state or by the Federal system.” And local facilities – “Of the inmates reported in item a, how many were housed in local facilities solely to ease prison crowding?”

The rate for African Americans was created by using – “What was the racial composition of people under your jurisdiction on December 31? b. Black (not of Hispanic origin)” and then dividing the responses by the jurisdiction totals. An interaction term for overcrowding and sex was included initially but was shown to be nonsignificant in all models of the regression, so it was taken out.
Table 3: Descriptive Statistics

N = 47

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
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<td>Negligent Death Rate per 1,000 Deaths</td>
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<td>68.5331</td>
<td>0</td>
<td>214.2857</td>
</tr>
<tr>
<td>Total Death Rate within the State Inmate Population</td>
<td>0.0022</td>
<td>0.0009</td>
<td>0.0004</td>
<td>0.0041</td>
</tr>
<tr>
<td>Capacity Rate for States</td>
<td>0.7701</td>
<td>0.5660</td>
<td>0.0220</td>
<td>1.8775</td>
</tr>
<tr>
<td>Use of Overflow Facilities for States</td>
<td>0.3617</td>
<td>-</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Overcrowding within States</td>
<td>0.4043</td>
<td>-</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Rate of African Americans within the Inmate Population</td>
<td>0.4370</td>
<td>0.2100</td>
<td>0.0160</td>
<td>0.7817</td>
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<tr>
<td>Private Prison Facilities Rate within the State</td>
<td>0.5317</td>
<td>0.0758</td>
<td>0.5000</td>
<td>0.8969</td>
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<td>Maximum Sentence Rate: 40 – 91 Months</td>
<td>0.2979</td>
<td>-</td>
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<td>Maximum Sentence Rate: 92 – 144 Months</td>
<td>0.5745</td>
<td>-</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Maximum Sentence Rate: 145+ Months</td>
<td>0.1277</td>
<td>-</td>
<td>0</td>
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</table>
Negligent Death Rate was shown to have a mean of 62.94 negligent deaths per 1,000, with a maximum of 214.29 negligent deaths per 1,000. Total Death Rate within the Inmate Population is a proportion of total deaths out of the total population. The mean was shown to be a rate of 0.0022 deaths. Capacity Rate was a proportion of the capacity of the state divided by the actual custody totals to determine if states were over capacity when using the conservative estimate, as mentioned earlier. The mean showed that on average states were at 77.01% capacity. The maximum however showed that some states got up to 187.75% capacity, which is almost two times the number of inmates that the state was equipped to house.

The Use of Overflow Facilities showed that 36.17% of states used overflow facilities to ease overcrowding. When looking at my variable for Overcrowding, 40.43% of states were shown to be overcrowded or being at over 100% capacity. The Rate of African Americans within the Inmate Population showed that on average the inmate population was around 43.70% Black and at most the population was 78.17% Black.
The mean for private prison rate was surprising given that data was pulled from 1998 and 1999. The mean shows that on average states had around 53% privatized prisons, with the maximum being close to 90%. While this was not mathematically significant in this study’s regression, it is significant theoretically. Generally, private prisons have higher rates of overcrowding, so states with a higher concentration of private prisons have a higher rate of overcrowding.

Maximum Sentence Length was divided into separate variables. However, this showed that on average 29.79% of inmates received a sentence of 40 – 91 months, 57.45% of inmates received a sentence of 92 – 144 months, and 12.77% of inmates received a sentence of over 145 months. Truth in Sentencing Laws was also divided into separate variables and on average 21.28% of states met 100% of the minimum federal requirements for funding, 14.89% of states met 50% of the maximum federal requirements for funding, and 63.83% of states met the maximum federal requirements for funding. Three Strikes Laws showed that, on average, around 48.94% of states implemented three strikes laws.
Table 4: Two Sample T-test with Equal Variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>95% Conf. Interval</th>
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<tbody>
<tr>
<td>Not Over Capacity</td>
<td>28</td>
<td>49.0084</td>
<td>12.4904</td>
<td>66.0930</td>
<td>23.3802</td>
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<td></td>
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<td></td>
<td></td>
<td>74.6366</td>
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<tr>
<td>Over Capacity</td>
<td>19</td>
<td>83.4717</td>
<td>15.7339</td>
<td>68.5825</td>
<td>50.4160</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>116.5275</td>
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<tr>
<td>Combined</td>
<td>47</td>
<td>62.9404</td>
<td>9.9966</td>
<td>68.5331</td>
<td>42.8183</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>83.0624</td>
</tr>
</tbody>
</table>

Diff  = mean (Not Overcapacity) – mean (Over Capacity)

T = -1.7280

Ha: diff < 0  Pr (T < t) = 0.0454
Ha: diff ! = 0 Pr (|T| > |t|) = 0.0908
Ha: diff > 0  Pr (T > t) = 0.9546

T-tests show that the mean negligent death rate is far greater when a facility is over capacity, 83.47, than when it is not, 49.01.

The correlation matrix did not show any instances of large amounts of multicollinearity. However, capacity rates and overcrowding were shown to be highly significant.
Table 5: Correlation Matrix

* p<.05  **p<.01  ***p<.001

<table>
<thead>
<tr>
<th></th>
<th>Negligent Death Rate</th>
<th>Total Death Rate</th>
<th>Capacity Rate</th>
<th>Overcrowding</th>
<th>Use of Overflow</th>
<th>Rate of African Americans within the Population</th>
<th>Private Prison Rate</th>
<th>Maximum Sentence Rate: 92 – 144 Months</th>
<th>Maximum Sentence Rate: 145+ Months</th>
<th>Truth in Sentencing Laws: 50%</th>
<th>Truth in Sentencing Laws: 85%</th>
<th>Three Strikes Laws</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligent Death Rate</td>
<td>1.000</td>
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<tr>
<td>Total Death Rate</td>
<td>0.353 **</td>
<td>1.000</td>
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<tr>
<td>Capacity Rate</td>
<td>0.543 ***</td>
<td>0.364 **</td>
<td>1.000</td>
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<tr>
<td>Overcrowding</td>
<td>0.250</td>
<td>0.248</td>
<td>0.785 **</td>
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<tr>
<td>Use of Overflow</td>
<td>0.119</td>
<td>0.210</td>
<td>0.119</td>
<td>0.102</td>
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<tr>
<td>Rate of African</td>
<td>-0.160</td>
<td>0.054</td>
<td>-0.139</td>
<td>-0.296 *</td>
<td>-0.226</td>
<td>1.000</td>
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<tr>
<td>Americans within the</td>
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<tr>
<td>Private Prison Rate</td>
<td>-0.224</td>
<td>-0.028</td>
<td>-0.282</td>
<td>-0.210</td>
<td>-0.078</td>
<td>-0.111</td>
<td>1.000</td>
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<td>Maximum Sentence Rate:</td>
<td>0.036</td>
<td>0.164</td>
<td>0.016</td>
<td>0.008</td>
<td>0.379 *</td>
<td>0.195</td>
<td>-0.110</td>
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<tr>
<td>92 – 144 Months</td>
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</tr>
<tr>
<td>Maximum Sentence Rate:</td>
<td>-0.238</td>
<td>-0.202</td>
<td>-0.097</td>
<td>-0.055</td>
<td>-0.288 *</td>
<td>0.041</td>
<td>0.221</td>
<td>-0.445 **</td>
<td>1.000</td>
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<tr>
<td>145+ Months</td>
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</tr>
<tr>
<td>Three Strikes Laws</td>
<td>-0.027</td>
<td>-0.147</td>
<td>-0.010</td>
<td>0.061</td>
<td>0.060</td>
<td>-0.179</td>
<td>0.058</td>
<td>-0.191</td>
<td>0.391 **</td>
<td>1.000</td>
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<tr>
<td>Truth in Sentencing</td>
<td>0.147</td>
<td>-0.095</td>
<td>-0.116</td>
<td>-0.223</td>
<td>-0.066</td>
<td>0.126</td>
<td>-0.130</td>
<td>0.360 *</td>
<td>-0.160</td>
<td></td>
<td>-0.051</td>
<td>1.000</td>
</tr>
<tr>
<td>Laws: 50%</td>
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</tr>
<tr>
<td>Truth in Sentencing</td>
<td>-0.027</td>
<td>0.039</td>
<td>0.048</td>
<td>0.079</td>
<td>0.014</td>
<td>0.127</td>
<td>-0.239</td>
<td>-0.111</td>
<td>-0.243</td>
<td>-0.149</td>
<td>-0.556 ***</td>
<td>1.000</td>
</tr>
<tr>
<td>Laws: 85%</td>
<td></td>
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</tr>
</tbody>
</table>
I calculated the outliers using the IQV = Q1 – 1.5 SD and Q3 + 1.5 SD. When looking at negligent death, Connecticut women were a massive outlier. Values reported were so extreme as to be unbelievable at 1.0. New Mexico, 0.78, and Wyoming men, 0.64, were also large outliers within the dataset, though not as drastic, but were also removed. This eliminated the issue of leverage and influence in my dataset, which removes the possibility of my results being skewed by these states. Missingness in this dataset does serve to shine light on a theoretical aspect, however. If a specific sex in a specific state is being underreported in one category, it is more likely to be underreporting in others. These factors serve to limit generalizability; however, this thesis serves to show that a phenomenon, negligent death, is likely occurring, not to provide generalizable results.

3.4 Methods

This study will be run using an Ordinary Least Squares regression. To do this, there needs to be linearity between the dependent and independent variables (Table 7). I must also ensure that our independent variables are not correlated with the error term and minimize multicollinearity between our independent variables (Table 5). Using an OLS regression in this study does differ from the literature I have looked at thus far. Most articles tend to use logistic regressions when conducting studies on subject matter like this. They also tend to use either individual level data or institution level data, whereas this study is using state level data. This is a strong dataset to use because there are fewer missing datum points than other studies since it is a nationally mandated annual survey that is required by the federal government to answer annually. Our n is much smaller than other studies to begin with because I am looking at states, so whatever missingness exists, poses more of a problem than in other studies. State-level data is a better option than institutional level data because it provides a better picture of the prison-
industrial-complex. My dataset has important benefits due to less missingness than many other studies and because I am looking at systemic problems that occur across the nation, not at individual institutions. Utilizing state level data that was collected through a federally mandated survey and has been in use since 1978 was the best possible option within the field of prison statistics.

4 RESULTS

Table 6: Negligent Deaths by Capacity Rate

Table 6 illustrates the relationship between negligent death and capacity rate. There is a mild trend showing that states that are over capacity, tend to have higher rates of negligent death.
Table 7: Fitted Values: Negligent Death and Capacity Rate

Table 7 shows the best fitting line for the relationship between negligent death and capacity rate. Table 8 illustrates a positive linear relationship between negligent death and capacity rate.

Table 8: Negligent Deaths by Total Death Rate
Table 8 shows a mild relationship between negligent death and total deaths. States with higher rates of total death can have higher rates of negligent death, which would make sense theoretically.

**Theoretical Equation:**

\[ \hat{Y} \text{ Negligent Death} = X_0 + X \text{ Capacity Rate} + X \text{ Total Death Rate} + X \text{ Rate of Overcrowding} + X \text{ Use of Overflow Facilities} + X \text{ Rate of African Americans within the Population} + X \text{ Private Prison Rate} + X \text{ Truth in Sentencing Laws: 50\%} + X \text{ Truth in Sentencing: 85\%} + X \text{ Maximum Sentence Length: 92 – 144 Months} + X \text{ Maximum Sentence Length: 145+ Months} + X \text{ Three Strikes Laws} \]

This equation shows the linear relationship between negligent death rates and our independent variables. \( X_0 \) is representative of our constant. In Table 9, I present a stepwise multivariate regression analysis to assess model significance and variable importance.
### Table 9: State Level Negligent Death, Stepwise OLS Regression Models

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1 Coef (b)</th>
<th>Std Error</th>
<th>Model 2 Coef (b)</th>
<th>Std Error</th>
<th>Model 3 Coef (b)</th>
<th>Std Error</th>
<th>Model 4 Coef (b)</th>
<th>Std Error</th>
<th>Model 5 Coef (b)</th>
<th>Std Error</th>
<th>Model 6 Coef (b)</th>
<th>Std Error</th>
<th>Model 7 Coef (b)</th>
<th>Std Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity Rate</td>
<td>57.83***</td>
<td>16.15</td>
<td>55.47***</td>
<td>16.44</td>
<td>105.87***</td>
<td>23.81</td>
<td>101.22***</td>
<td>24.25</td>
<td>99.76***</td>
<td>24.21</td>
<td>97.73***</td>
<td>24.81</td>
<td>98.07***</td>
<td>25.08</td>
</tr>
<tr>
<td>Total Death Rate</td>
<td>14349.93</td>
<td>10751.92</td>
<td>12748.13</td>
<td>10278.11</td>
<td>14427.67</td>
<td>15485.11</td>
<td>10164.21</td>
<td>16412.21</td>
<td>10122.46</td>
<td>15751.06</td>
<td>10679.54</td>
<td>16065.96</td>
<td>10811.06</td>
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</tr>
<tr>
<td>Overcrowding</td>
<td>-61.30**</td>
<td>26.45</td>
<td>-75.01**</td>
<td>27.14</td>
<td>-75.78**</td>
<td>27.15</td>
<td>-67.72*</td>
<td>27.54</td>
<td>-64.64*</td>
<td>28.81</td>
<td>-65.26*</td>
<td>28.72</td>
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</tr>
<tr>
<td>Rate of African</td>
<td>-68.16</td>
<td>40.35</td>
<td>-75.18</td>
<td>40.94*</td>
<td>-82.68*</td>
<td>41.42</td>
<td>-70.84</td>
<td>44.46</td>
<td>-66.98</td>
<td>45.63</td>
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<tr>
<td>Americans within the</td>
<td>-112.28</td>
<td>111.26</td>
<td>-52.57</td>
<td>121.15</td>
<td>-48.11</td>
<td>123.39</td>
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<td>Private Prison Rate</td>
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<td>43.50</td>
<td>33.27</td>
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<tr>
<td>Laws: 50%</td>
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<td>Length: 92 – 144 Months</td>
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<td>-28.27</td>
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<tr>
<td>Three Strikes Laws</td>
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</table>

*p<.05 **p<.01 ***p<.001

* Data are reported in scores.
Beginning in Model 1, I assess the impact of capacity rates while controlling for overall death rates. Model 1 examines the relationship between Capacity Rate and Total Death Rate with state level negligent death rate. State capacity rate has a significant positive relationship with state level negligent death rate, where for every one unit increase in a state’s capacity rate there is a 57.83 increase in state level negligent deaths (B=57.83, p<0.01). Model 1 accounts for 29.12% of the variance in state level negligent death rates (r²=0.2912).

In subsequent models I added in additional variables for overcrowding, rate of African Americans within the population, private prison rate and strictness in sentencing policy variables. Ultimately, the best fitting model would be Model 5. Model 5 was shown to be the best model because it had the highest significance for the independent variables, while also maintaining a high r-squared and adjusted r-squared. Having an r-squared of .3897 means we are able to explain around 38.97% of the variation within negligent death rates in the United States. The adjusted r-squared went down after Model 5 with the inclusion of the other policy test variables. I also tested each one individually against the regression and Truth-In-Sentencing Policy was shown to have the greatest impact. Overflow was shown to be nonsignificant in all models, so it was removed. However, it was a useful measure when looking at states that were overcrowded. Around 36.17% of states used federal or local facilities were used to ease overcrowding (Table 3). The empirical equation is based upon Model 5. It shows the final best fit regression line from our stepwise regression models. Our constant shows a positive linear relationship between the negligent death rate and our independent variables.
Empirical Equation:

\[
\hat{Y}_{\text{Negligent Death}} = 23.69 + 99.76 \times \text{Capacity Rate} + 16412.21 \times \text{Total Death Rate} + -67.72 \times \text{Rate of Overcrowding} + -82.68 \times \text{Rate of African Americans within the Inmate Population} + -52.57 \times \text{Private Prison Rate} + 46.08 \times \text{Truth in Sentencing Laws: 50\%} + 16.55 \times \text{Truth in Sentencing: 85\%}
\]

However, it is important to note that in all models, capacity rate is shown to be highly significant when determining negligent death rates. It was surprising to see that adding in additional strictness in sentencing policy variables, r-squared did not increase, but instead went down, meaning these did not add additional explanatory power to my analysis. Overcrowding is shown to be a moderately significant factor in contributing to negligent death. The proportion of privatized prisons was shown to be nonsignificant. Model 5 showed the highest overall significance for my independent variables as well as in the overall model. This illustrates those states with higher rates of African American Prisoners within the prison population as well as having high rates of overcrowding and capacity rates, are more likely to have higher rates of negligent death. This shows that negligent death is occurring within the United States and that there is a relationship between negligent death rates and the rate of overcrowding. However, this model does not confirm the relationship between strictness in sentencing policy and negligent death rates. These policies did impact overcrowding and therefore while not directly causing negligent deaths, are important mechanisms to overcrowding and indirectly factor into contributing to negligent deaths.
5 DISCUSSION AND CONCLUSION

Similar to previous works, this study clearly shows that higher rates of overcrowding is a clear indicator of higher rates of negligent death in prisons (Camp et al., n.d.). However, this study also concludes that the variable for concentration of African Americans within the population also shows an increase in negligent death. African Americans are disproportionately affected by the prison system and suffer disproportionately higher rates of negligent death. What this means is that African Americans constitute a larger percent of the population of the negligent deaths within those states. States that have higher concentrations of African Americans within the general population, generally have stricter sentencing policy. This in turn ensures that those that are given prison time are there much longer than in some other states. When inmates are kept in prison for longer periods of time, it is much more likely they will be subject to violence and are therefore, more likely to die in prison. This is not an accident; it is racial capitalism at work and functioning how it was meant to. The criminal legal system is actively criminalizing African American bodies and serves to profit capitalists.

It should also be noted that the findings in this study are limited. I am using data from 1998 and 1999. That was twenty years ago. Many states do still implement three strikes laws, but there are some that are currently discussing abolishing their three strikes laws if they have not already done so. There is also a myriad of other policies and procedures which have created institutional change since the 1990’s from the policies I used in my thesis like truth-in-sentencing to others like the Violent Crime Control and Law Enforcement Act of 1994 (Chung 2019). Data was also dropped from the study due to a lack of reporting by the state. Therefore, these results only form a partial picture of negligent deaths and institutionalized racism within the prison system, it develops a clear baseline indicator of severe issues that must be studied and addressed.
Improvements can be made to the overall vetting of correctional officers. They are given minimal training after being hired and many institutions do not run background checks. Institutions should have higher educational requirements for these roles as well as better pay. Legislation should be passed to reduce overcrowding, since it was legislation that exacerbated overcrowding decades ago. There should also be improvements to the healthcare systems in place for prisoners. There should not be a profit motive involved with healthcare, at any level, inside or outside of prison.

Future research should be conducted with more recent data at the state-level, macro-level, to understand institutional failings and close the information gaps in capacity rates and the current incarcerated population. There need to be better systems in place for holding facilities and states accountable for their misreporting or entire lack of reporting of deaths. This research could be taken further by analyzing the use of privatized health management within each state. Then from that data analyzing the negligent death rates. Having that additive data would allow for a clearer understanding of how healthcare, or lack thereof, can play a role in negligent death. Specific private prison companies could also be included by state. We could then analyze some of their policies and relate that to the location of the prisons they own and then determine if that influences negligent death rate in prisons.
REFERENCES

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