

THE IMPACT ON CRIME RATE DURING A PERIOD OF COVID-19 INDUCED
JAIL BOOKING RESTRICTIONS

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

COVID-19 has become a catalyst for profound changes not just in public health but in criminal justice as well. To reduce the close-quarters populations of correctional facilities in an effort to reduce the spread of the virus, law enforcement administrators in the Pacific Northwest have significantly limited the opportunity to make custodial arrests of criminal suspects. The effect on crime rate by not booking suspected criminals for misdemeanor and felony crimes alike remained largely unstudied. To assess this intervention, a paired samples t-test was used after acquiring call volume data for 13 crime types from the dispatch communications center of a large Pacific Northwest county. Results determined statistically significant changes in crime rate in 12 of 13 crime types, with increases exhibited in 11 of 13, as determined by 911 calls for service after introducing COVID- booking restrictions. These results may influence future decision-making when considering public health interventions related to criminal justice and law enforcement.

Keywords: crime rate, COVID-19, booking restrictions, 911 calls.

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Dedication

This dissertation is dedicated to Jesus Christ, our Lord and Savior who allows us to grow in grace, and to my family because without them I could have never completed this journey. To my wife Megan (MJ), my children, Daethan and Sydney, my brother Michael, and the two people who would be most ecstatic over this accomplishment, my late grandparents, Donald Anderson and Christena Warwick. I love you all, and I thank you more than I can ever put into words or action.

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Table of Contents

ABSTRACT	3
Copyright Page.....	4
Dedication	5
Acknowledgments.....	6
List of Tables	10
List of Figures	11
List of Abbreviations	12
CHAPTER ONE: INTRODUCTION.....	13
Overview.....	13
Background.....	14
Problem Statement	21
Purpose Statement.....	21
Significance of the Study	23
Research Question and Hypothesis.....	25
Assumptions.....	26
Limitations	27
Definitions.....	27
CHAPTER TWO: LITERATURE REVIEW.....	28
Overview.....	28
Search Strategies.....	29
Theoretical Framework.....	31
Summary	59

CHAPTER THREE: METHODS	62
Overview	62
Design	62
Research Question	64
Hypothesis.....	64
Participants and Setting.....	64
Instrumentation	66
Procedures.....	66
Data Analysis	68
CHAPTER FOUR: RESULTS	69
Sample.....	69
Data Collection	71
Data Analysis	72
Outliers and Normalcy	73
Results.....	74
Conclusions.....	79
CHAPTER FIVE: DISCUSSION.....	80
Purpose of the Study	80
Findings	80
Limitations	81
Discussion.....	82
Implications for Practice.....	84
Recommendations for Future Research.....	84

Conclusion	85
REFERENCES	87
APPENDIX.....	108

List of Tables

Table	Page
1. Aggregated Call Data	69

List of Figures

Figure	Page
1. Test of Normality	71

List of Abbreviations

Armed Robbery (ROBA)

Assault not in Progress (ASN)

Assault with a Weapon (ASW)

Commercial Burglary (BURC)

Domestic Assault with a Weapon (DVW)

Drive-by Shooting (DBSHOTS)

Driving Under the Influence (DUI)

Federal Bureau of Investigation (FBI)

Homicide (DOAH)

Motor Vehicle Theft (MVT)

Rape (RAPE)

Residential Burglary (BUR)

SARS-CoV-2 (COVID)

Strong-arm Robbery (ROBS)

Shooting with Victim (SHOOT)

Shots heard with No Known Victim (SHOTS)

Uniform Crime Report (UCR)

CHAPTER ONE: INTRODUCTION

Overview

Nearly limitless theories exist on the most appropriate ways to address crime and prevent recidivism. Some efforts have been found at least moderately effective, others have been written off, and more still are in their infancy under new social movements and currently are studied with vigor (Davis et al., 2013). Nevertheless, despite innumerable changes over time to how crime is addressed in the United States, the need for and use of incarceration has always been involved. Jails and prisons dot the country and stand as a reprieve from those who seek to victimize society and law-abiding citizens. When treatment or work release or probation or whatever other alternative sentencing may fail, a person who offends yet again can be put somewhere that prevents them from victimizing the outside world. However feel-good this may be though, the data is strangely mixed about what effect this approach may have (Wilson et al., 2000). Criminologists from the beginning of time have been forced to reckon with whether incarceration helps, hurts, or results in no discernible effect. It is, indeed, an on-going conundrum, but it is, if nothing else, consistent. The attention herein, then, turns to what happens if this consistent reality of criminal justice is upended and suddenly becomes predominantly unused as a result of an unexpected global pandemic. This study conducts a statistical analysis of time periods prior to COVID-induced booking restrictions in contrast to the pandemic period, and uses secondary data to review impact on crime rate in a large Pacific Northwest County in Washington State.

Background

Beginning in early-2020, the COVID-19 pandemic took over the mainstream consciousness and began dominating headlines around the globe (Terry, 2021).

Uprooting society as it has long been known and lived, the pandemic has changed nearly every facet of life around the world (Alzueta et al., 2021), with a sparse few countries continuing to operate without massive changes impacting the civilian population (Petridou & Zahariadis, 2021). Among the numerous implications on the American way of life introduced by COVID-19, there include large changes in the field of criminal justice and calls for changes (Nowotny et al., 2020) that have far-reaching effects.

With the pandemic causing grave concerns about social distancing and fear that the disease may spread rapidly in close quarters (Henry, 2020), jails and prisons around the United States have adopted strict protocols to reduce populations and minimize human contact (National Academies of Sciences, Engineering, and Medicine, 2021). Part of the protocols taken on in response to COVID-19 includes, depending on the area of the country, limitations on what crimes are considered allowable for custodial arrests and bookings. These include not just misdemeanor crimes such as simple assault, shoplifting, trespassing, malicious mischief (vandalism), and other violations of the law considered to be minor, but also felony crimes such as motor vehicle theft, burglary, fraud, and organized retail theft, among others. Generally, in these cases, subjects are still able to be stopped and detained, or even arrested by citation, but they are indeed taken out of handcuffs and essentially left to walk free with a promise to appear in court at a future date. Those future dates, however, are as yet unknown as to when they may be or if they will ultimately even be required. Indeed, in some places like King County, Washington,

prosecutors have argued to drop charges against people who were arrested and allowed to remain free because of booking restrictions (Kruse, 2020). These people would then have literally gotten away with their crime with nothing more than an inconvenient interaction with a police officer after making a victim of someone in the community. Despite where anyone may fall on ideological lines as to their preference for punishment or the lack thereof, it is very much a real and enduring issue facing jurisdictions around the nation. To be sure, the measures implemented by county officials are largely not supported by law enforcement agencies (City of Auburn, n.d.). Police work has always included the recourse of placing a criminal in jail. It harkens back to the proverbial "good guys against the bad guys" and many adages about putting criminals "behind bars."

Hardly a period exists in history in which one can find an example of a criminal justice system without the use of jails and prisons. The Romans, in Ancient Athens, maintained a prison known as *desmoterion* (Cadoux, 2008), translated to *place of chains*, where wrong-doers were placed. Imprisonment for crime is, ultimately, nearly as old as time. Yet, in response to a pandemic that has infected millions around the world, the entire system of crime and punishment has been uprooted and altered. No longer is getting caught for a crime a sure-fire ticket to a jail cell or a certainty that one will face a judge on their day in court. Instead, those certainties have been replaced by a large amount of paperwork, a tremendous amount of uncertainty, and communities around the nation that have yet to understand the complexity of this new reality. It is unique to both citizens and to the criminals that there exists a world in which crime can go, at least temporarily, unpunished even after apprehension by the police (Gormley, 2020).

Although criminal procedures vary by jurisdiction, the large Pacific Northwest County analyzed in this study in Washington State (MRSC, n.d.), consistent booking restrictions prevent suspects in a vast majority of non-violent crimes from incarceration. Among the crimes which do not allow custodial arrests include commercial burglary, residential burglary, theft of a motor vehicle, unlawful possession of a firearm, narcotics possession, narcotics distribution, and nearly any warrant. To put the latter into perspective, for example, an individual who committed a crime of theft and then failed to show up for court after release from jail would generally receive a bench warrant. These warrants are signed by a Judge and generally state that a law enforcement officer *shall* take the person into custody upon locating them, indicating Officer discretion is removed, making it an unofficially mandatory arrest. Because of coronavirus restrictions, however, this is no longer the case. In many instances, even specifically mandated arrests are no longer mandatory by the nature of jails refusing to book individuals. In the state of Washington, for instance, a second or subsequent DUI within a 10-year period, or an assault on a person whom one has a domestic relationship with, are considered *mandatory arrests* (Washington State Legislature, n.d.). However, at various times throughout the pandemic, jails have refused some of these bookings because of COVID.

Going along with the historical use of jails and prisons not just in the United States but around the world, there has always been an assumption that incarceration is part of a working, yet flawed, system. The "bad guys" do not want to go to jail, and as such, the ideology is that less crime occurs because jails exist. For the worst of the worst, prisons dot the nation that are intended to house people long-term who do not function along with the rest of polite society. There needs to be a place to put people who wish to

contribute ills to society, which ideally is not in the public where criminals continue to victimize others. Yet, the coronavirus pandemic has changed that thought process. For perhaps the first time, the United States has to find out what happens when criminals no longer go to jail. If shoplifters are not punished, do they stop stealing from the supermarket? If burglars can break into a business after hours and cause damage and commit theft of property, will they have the incentive to not repeat their crimes? If drug users have no fear of losing their freedom and narcotics for injecting poison in public, will they ever have a reason to stop? It would be simple to say that the booking restrictions hampering the traditional function of law enforcement are only temporary and that those who flout the law will still yet face their days in court, and punishment, if due, will be dispensed. It is not, however, that simple, nor likely. The criminal justice system has only so many attorneys, only so much bed space even if the day comes when restrictions are lifted, and only so long of memory before the pains someone causes to society are healed or replaced. The booking restrictions in place because of COVID-19 are far more profound than simply delaying justice; they may very well be altering the landscape of crime and crime rates around the nation. COVID-induced booking restrictions are, figuratively and literally, upending the notions of deterrence and incapacitation, which have been cornerstones of the American justice system.

The United States is a nation that has largely relied on the concept of incapacitation—where criminals are sent to jail or sentenced to prison time—as recourse for criminal behavior (Auerhahn, 2017). A reliance on incapacitation is essentially a two-fold endeavor, as it not only takes suspects and convicted criminals out of the population, but also implements a deterrence effect that is intended to prevent future crime (Jervis,

1978). Deterrence, by its nature, shows potential lawbreakers that should they choose to flout the law, they may face a specific set of punishment(s). This type is called *general deterrence* and ideally prevents crime in the whole of the general population. The fact that people know that jails and prisons exist and that criminal behavior can place them there is believed to be a general deterrent for illegal behavior. In Washington State, it is easily found that the commission of a misdemeanor crime is punishable by up to 364 days in jail and potentially a substantial fine, while felonies, which are crimes generally considered worse than misdemeanors, are punishable by at least one year in prison (Pihl, 2011). These sentencing guidelines and generalities of crimes are easy to find in the public view and are, by way of the courts and criminal justice system, intended to be known so that people consciously choose not to commit a crime to avoid the well-noted and understood punishments.

Other examples of *general deterrence* include the rarely used *capital punishment*, in which a convicted criminal is executed as recourse for their crime(s), and *corporal punishment*, which is any type of physical punishment. Relating to the former, a primary example of capital punishment used as a deterrent to crime is the fact that execution by hanging used to be a public spectacle (Richards & Easter, 1992). Authorities believed that if people were to witness the death of a person in a public square, where people young and old alike could listen to the crime(s) the person was convicted of and then witness the government response, that fewer would risk such a fate of their own. Corporal punishment, although clearly not as severe as its death penalty counterpart, is no longer a part of the most developed legal systems in the world and not a part of United States jail

or prison systems. It is, however, an example of deterrence theory that has evolved over time (Benatar, 2013).

At the opposite end of the spectrum from people who have not yet committed a crime and to which the government wishes to entice them to remain that way, exist those who have already broken the law and have faced, or are facing, punishment. For criminals who have already been caught, convicted, and sentenced, they are intended to end their sentences with a desire to never return to a lock-up facility. This type of deterrence aimed at preventing recidivism is called *specific deterrence* because it specifically targets an individual offender (Ariel et al., 2019). It is the *specific* punishment endured by the *specific* offender that is thought to make them want to remain crime-free in the future. Examples can include a convicted drunk driver who serves a jail sentence and loses their license for the following year or more. These punishments are specific to the crime committed and are intended to convince the person that the criminal behavior is not worth the eventual punishment they would receive should they be caught again. This example is also notable for the legal trend of escalating sentences, in which repeat offenders receive increasingly harsh sentences should they not absolve themselves of breaking the law after each offense. Some states have what is called *Three Strikes* laws, which were part of a tough-on-crime approach first brought into practice in 1994 by the United States Justice Department and their Anti-Violence Strategy (Tonry, 2017). The laws are intended to increase prison sentences exponentially for people who have been previously convicted of two or more felonies or violent crimes. More than half of the states in the US have *Three Strikes* laws; however, in response to criticism and data

showing ineffectiveness (Kovandzic et al., 2004), some are reducing the severity of the punishments associated.

Deterrence, generally or specifically, is designed to prevent future crime by way of making it unappealing. With corporal punishment no longer valid in the United States, and with capital punishment exceedingly rare, fewer but more specific tactics remain within which the legal system works daily to spur the continued use of deterrence theory. The most common result in modern times is simple incarceration. People generally do not like their freedoms taken away, and they do not like small places with limited opportunities and poor food. For these reasons, jail and prison sentences are the deterrent in current criminology. However, with COVID-19 booking restrictions in place because of the 2020 coronavirus pandemic, neither general nor specific deterrence concepts are of use, and the effects are yet unknown. Absent a crime of violence or satisfying a requirement to be labeled as maintaining a *domestic relationship* with their victim, criminals are not booked into the County Jail, the main incarceration facility in the area. As criminals are not incarcerated, they are conceivably not deterred from committing a future crime. It is a unique time in American criminal justice when people, who have long understood that jail and prison were punishments for crime, no longer fear such recourse. The coronavirus pandemic may very well have ushered in the first time in documented history that the state of Washington has, as a general rule, not provided the opportunity for criminals to be booked into jail, upending the idea of deterrence, and largely abolishing the practice of incapacitating offenders.

Problem Statement

Among the many changes implemented in the name of public health as a result of the COVID-19 pandemic were alterations to the process of booking suspected criminals into jail. The measures focused on thinning populations of incarcerated persons because of the confined spaces in which they generally live. With most jails and prisons already facing significant space issues (Lugo & Wooldredge, 2017), COVID has been a serious concern because of its ability to spread quickly (Sun et al., 2020). Further, most facilities do not have adequate medical care for a variety of serious health problems that some COVID patients can incur (Cloud et al., 2020). In short, a highly contagious and potentially deadly virus is a recipe for disaster in close quarters, and booking restrictions were implemented to limit virus spread. The problem presents itself in that booking restrictions were put into place as a result of stifling a virus, without regard to what effect may be had on crime rate by leaving suspected criminals in the public. This study investigates the change in crime rate experienced by a large Pacific Northwest county when inmate populations are at historic lows as a result of significant booking restrictions.

Purpose Statement

The purpose of this study is to determine the gravity of the decision to prevent law enforcement agencies from booking suspected criminals into jail. In doing so, tremendous obstacles must be reckoned with. Perhaps the most significant difficulty concerning COVID-19 and crime rate is the fact that no precedence in practice or in the literature exists for such a confluence of events. A global pandemic of proportions last seen during the Spanish Flu, a never-ending media machine pumping out facts, news, and

opinions faster than anyone can consume the content, and disagreements between scientists (Banerjee, 2021) and political parties alike make for incredibly complex endeavors that must be dealt with. Despite the need for detailed research and time to sort out the complexities and minutiae alike, the reality is that the criminal justice system never stops. Every day, in every corner of the nation, crime is committed, large and small. Whether it is a shoplift from a local grocer or a homicide in a busy downtown street, these actions take place no matter the conversations taking place in the House or the Senate, or even in the chambers of the local City Council.

Law enforcement traditionally responds to crime with arrests, sometimes preemptively but largely after the fact. The punishments range from written warnings to incarceration, with fines or probation or a variety of other responses inserted in-between. As a result of this historically consistent *if-this-then-that* reaction, scholars and the citizenry alike can relatively easily understand the crime rate. Crime rate is, simply, the number of *reported* crimes divided by the population of a jurisdiction (University of Memphis, n.d.). The result is then multiplied by the number 100,000, and the subsequent results provide a statistic that is able to be easily digested. A crime rate of 100/100,000, then, would indicate a given crime occurs at a rate of 100 times per 100,000 citizens.

Because the crime rate is so straightforward, it lends itself well to research (Gibbs, 2015). Interventions are, because of this, able to be proposed, practiced, and studied in a consistent manner. For instance, if juveniles were to be subjected to diversion for certain crimes in one year when the year prior they were sentenced to incarceration, the crime rate could be looked at to see if the crime rate among that population changed as a result. This is common in the field and is generally studied through one or two

alterations to the criminal justice landscape, whether through initiative, legislative or other means. What has not been studied, and what the literature profoundly lacks, is in determining what happens when an entire recourse is removed from the population.

In the name of public health, as a result of the coronavirus pandemic, restrictions were put into place on who could be booked into jail (Jenkins, 2020). Rather than altering one group's metrics in response to one intervention and looking to see what, if any, effects that change has, the overall landscape has been entirely upended. With the exceptions of some violent crimes, domestic crimes, and crimes involving repeat violations of driving under the influence, law enforcement agencies cannot book most subjects into County jails. An experiment of this sort has never been conducted before but offers an incredible opportunity to research a scenario that would have been largely unpalatable in most any other circumstances. Examining a dependent variable of crime rate using the independent variable of booking restrictions will provide tremendous data from which future criminological interventions may be derived. Although the traditions of criminal justice involve incarceration of offenders, the entire approach could be upended should highly restrictive booking restrictions not change the pace of crime. Housing inmates is expensive in labor and in dollars, and any opportunity to reduce those expenses while maintaining public safety should be examined.

Significance of the Study

Rare are the moments in which variables naturally come into motion in such a way that their interactions can speak volumes for an entire field of study. Although it would be safe to say that no one in any walk of life would ever ask for a global pandemic to strike, resolutions and attempts at mitigating its damages provide for important data

gathering. Significant insight into various interventions are but one of the very few positives to come from otherwise dreadful circumstances and are often lost if not taken advantage of (Stemn, 2018).

Given the booking restrictions put into place because of the coronavirus pandemic, and the associated release of hundreds of inmates (Marcum, 2020), variables came into play in Washington State that have never been studied before. These situations, along with the virus, may cause significant discomfort for the general population, it is an opportunity to review criminological theory in ways that have not previously been available. Arresting, convicting, sentencing, and then housing an inmate is an expensive endeavor anywhere in the country (Gaes, 2019), but particularly so in the Puget Sound region of Washington, with some of the highest land values in the nation. Because of the geographic and economic factors involved, the precise societal and financial impacts of dealing with criminals in the traditional manner are likely incalculable. One may wonder, however, if COVID-19 is presenting an opportunity to rethink and reimagine what Americans perceive as criminal justice. To truly determine this, it must be ascertained what these restrictions are doing to the crime rate in local communities, and subsequently—in later study—how the general population feels about those very results.

The United States spends tens of billions of dollars each year funding jails and prisons (Sawyer & Wagner, 2020), with the idea that it is keeping the streets of America safer. It is pertinent, then, to know whether or not this is the case as a generalized result or simply one that may be applied to medical and public health emergencies. If it is found that not incarcerating non-violent crimes does not increase the crime rate, questions must be asked as to whether or not those billions of dollars should continue to be spent doing it

if there appears no benefit to society. Similarly, if the crime rate is unchanged despite not taking a majority of suspected criminals into custody, inquiries should be made into alternatives to custody that are more cost-effective. Finally, if the crime rate is found to, in fact, increase as a result of COVID-19 booking restrictions, then stakeholders must determine if this model is worth continuing in the future for public health concerns or if the cost is simply too high. If the quality of life is extensively reduced, or if the data shows that violent crime such as homicides mitigate any safety measures of preventing criminals from going to jail, then COVID-19 booking restrictions will have failed at their intended purpose of enhancing safety. Whatever the data reveals, the result will be quite pertinent and of significant interest to those interested in criminal justice reform.

Research Question and Hypothesis

The implications and potential repercussions of limiting jail and prison bookings in the Pacific Northwest are as-yet-undetermined, offering an insightful opportunity for research. COVID-19 has presented unique circumstances within which the criminal justice realm operates in 2020-2021, and the statistical results await analysis.

Because booking restrictions are ubiquitous among law enforcement agencies in the County of focus in Washington, this study can be analyzed best through the use of numerical data. For an applicable study on this phenomenon, the research is focused on the relationship, or lack thereof, between these booking restrictions and the crime rate in a large Pacific Northwest County.

The question revolves around the lack of incapacitation taking place in the area and whether or not leaving suspected criminals on the street is enhancing crime and associated crime rates, and if so, in what categories of crime are they doing so. The

research will provide insight into the repetitive behavior of offenders and whether or not the knowledge of potentially forthcoming charges prevents suspects from committing additional crime(s).

In formulating this study, the following research question guided the work, and corresponded with the following hypothesis:

RQ1: Is there an increase in the crime rate when COVID-19 booking restrictions are in place in a large Pacific Northwest County?

H₀1: COVID-19 booking restrictions lead to an increase in the crime rate in a large Pacific Northwest County.

H_a1: COVID-19 booking restrictions have no effect on the crime rate in a large Pacific Northwest County.

Assumptions

Numerous assumptions were made during the course of this project. They include:

1. That agencies within the studied County area accurately reported crime types in accordance with the Revised Code of Washington.
2. That agencies within the studied County area accurately reported the true number of crimes committed.
3. That agencies within the studied County area did not change their standard practices in documenting crimes during the study period.

Limitations

This project worked within the scope of the following limitations:

1. The data was not observed in the field and instead came from pre-existing databases.
2. As standard practice, some agencies may lump multiple victims into one case when documenting incidents such as car prowls or burglaries.
3. The coronavirus pandemic may have caused staffing shortages within reporting agencies and could have resulted in delayed reporting.

Definitions

1. *COVID-19* – The disease caused by the SARS-CoV-2 virus. An infectious disease primarily targeting the lungs, but also prominently found with multi-organ involvement (Post-Acute Care Study Group, 2020).
2. *Crime rate* – A statistic indicating the number of crimes reported per 100,000 persons in the overall population. The reported crimes are divided by the population, with the result multiplied by 100,000 (California Department of Justice, n.d.).
3. *Deterrence* – Taken from the assumption that humans are innately rational and that, based on consequences, they will be deterred from criminality (Paternoster, 2018).
4. *Pandemic* – Label given to a disease that has spread worldwide (WHO, 2010).

CHAPTER TWO: LITERATURE REVIEW

Overview

The complexity of this study is that, much like criminal justice initiatives in general, it involves a myriad of concepts coming together. Most specifically, theories of deterrence and their subsets, the functionality of incapacitation, and the tangible implementation of restricting arrest authority are all involved. As crime rate is a compilation of criminal acts made up not just by adults but also juveniles (Tonry & Farrington, 2005), all individuals beyond the age of culpability are brought into consideration. Among the factors considered within these groups are their living situations, social status, and the political climate over the area within which they reside. For these reasons and many more, the understanding of criminal justice has changed continuously, particularly in the United States, since its founding (Hirschel et al., 2008). By the nature of this complexity, any research conducted into why people do the things they do, ultimately resulting in a statistic we call *crime rate*, requires an exceptional understanding of the field's primary principles. To then narrow this to a review of what impact a global pandemic such as COVID-19 may have on criminality in a large Washington State county during a period of restricted jail bookings requires that even deeper foundational aspects be investigated.

A tremendous amount of literature relating to deterring criminality and law enforcement responses to emergent scenarios have been produced, offering many gaps that future studies may pursue. Indeed, a tremendous opportunity exists here to learn about criminality in the face of a public health emergency the likes of which the United States, let alone Washington, has not seen within the last 100 years (Franchini et al.,

2020). To root out the complexity of the impact that COVID-19-induced jail booking restrictions have on crime offers actionable information on how municipalities may best respond to future situations that require a comprehensive scale response to such a scenario.

In reviewing the relevant literature for this study, it was conducted with an understanding that being booked into jail, whether in the eye of the government agency placing a person there or from the person being booked, is intended to be a punishment. In the field of criminal justice, punishment is, in brief, provided to deter future criminal behavior. Additionally, by way of taking an individual out of the public, they are incapacitated and thus temporarily incapable of further victimizing others whether they would desire to or not (Ishoy, 2014). It is further established herein that through a combination of early release and prohibitions on booking suspected criminals into jail, the cumulative efforts profoundly alter the landscape of traditional criminal justice response in the United States. Understanding the effects of doing so may have significant implications to the future of law enforcement in, at least, particular areas of the country.

Search Strategies

The literature reviewed for this study was extensive. Because of the unique circumstances surrounding this research and the rare marriage of so many prime aspects of the criminal justice system, specific measures were needed to review applicable scholarship. The prime topics surveilled for this review were the classical theory of criminal justice, deterrence theory and its aspects of certainty, celerity, and severity of punishment pertaining to both adults and juveniles, reductions in police officer authority, and particularized impacts of COVID-19.

Criminal justice has played a role in society since time immemorial. It is no surprise that the foundational theories in the field have produced tremendous volumes of work from researchers. Of prime example, a general search using Google Scholar for *deterrence theory* produced over 314,000 results. Similarly, the phrases *classical theory of criminal justice* (over 684,000 results), *police officer authority* (over 871,000 results), and *crime and punishment* (over 1,740,000 results) also offered daunting returns. Because of this, searches were progressively narrowed down to a time frame primarily within the prior five years, and by using queries focused on those aspects and their effects on overall crime rate and criminal behavior. Due to the catalyst for this research being an infectious virus, attention was also given to the transmission of disease in jail and prison facilities and limitations on booking authority.

Along with Google Scholar, the leading internet resources utilized for this research include the Jerry Falwell Library at Liberty University, ProQuest through the *Scholarly Journals* search function, and Microsoft Academic. The Pierce County Library System website was also frequently visited, along with available physical locations. However, the latter was severely limited due to this research being conducted during a time of strict COVID-induced limitations throughout Washington that prevented traditional methods of physically gathering data and information. Nonetheless, more than 120 primarily peer-reviewed sources were acquired for the completion of this study.

While it is acknowledged that innumerable books surrounding the topics discussed herein have been written by some of the brightest and most respected scholars to ever grace the world's Universities and lecture halls, the use of such treatises was intentionally limited. While a historical appreciation of items such as deterrence theory is

undoubtedly necessary to carry out this research, the most pertinent aspects of such are its relation to modern criminal justice systems and authorities.

Theoretical Framework

Criminal justice theories abound in the literature in quantitative and qualitative natures (Bernard & Engel, 2001). Criminologists seem to have as many theories on the causes of crime and the most appropriate responses as there are crimes themselves. Because there are differences in the nature of crime, the people who commit the crimes, and the area where the crime occurs (Harries, 1980), there is a myriad of topical considerations that must be made depending on the information sought to study. To compile these various facets and use them to consider the effects that may be reasoned from a limitation on bookable crimes into a jail facility, many aspects must be examined independently and concurrently.

Considering the impacts, if any, that booking restrictions have on the crime rate, an appropriate framework must be established in line with current criminal justice practices. Herein, that framework will fall under the *classical theory of crime*, specifically its concept of deterrence theory, as made famous by the enlightenment philosophers Cesare Beccaria of Italy (Beccaria, 2016), and Jeremy Bentham, of the United Kingdom (Bruinsma, 2018). Classical theory, as a generality, posits that committing a crime is a consideration made by an individual of their own free will, given that humans are capable of rational thought and the innate understanding of right and wrong (Bernard et al., 2019). The theory also provides that crime is immoral, and this facet is understood by the person committing such behavior. Further, due to the victimization of others in a community, there is a weakening of society in areas where

criminal activity is allowed to flourish (Bunge, 2006). This framework is thus ideal for research addressing crime rate as the United States, despite a consensus—from the general population up to, and including, the President of the United States—that criminal justice has long been ripe for reform (Obama, 2016), is predominantly centered on the classical crime-and-punishment model.

Classical theory, given its premise that crime is a choice and thus can be rationally deterred, giving life to what is known as *deterrence theory* (Pratt et al., 2006), has a shortlist of preventative and restorative solutions. As Tomlinson (2016) points out, the theory grounds itself on the varied value of punishment, swift and certain. The theory encourages penalties strong enough to not only persuade an individual to no longer commit criminal wrongdoing (known as specific deterrence), but to do so with a zeal that also makes others see the potential for punishment and decide to remain on the right side of the law (known as general deterrence). In the classical method, it is further mediated that the best solutions are not just appropriately stiff penalties but penalties that come as quickly as possible after the ill deed has been committed (Zettler et al., 2015).

Although the classical theory is consistent that punishment is the root of deterring criminal behavior (Carlsmith et al., 2002), it employs multiple facets to accomplish its goals best. Most prominently, researchers such as Nagin et al. (2018) have studied for effectiveness the three significant aspects of punishment: celerity, certainty, and severity. Beyond those, for the sake of this research, some considerations must be given to geography, legislative guidance, and the premise of *incapacitation*, which is to prevent future criminality by removing criminals from the society in which they commit their harms (Canton, 2017). As the crime rate itself is comprised of many acts, so too are the

theories that seek to prevent them. Although numerous, the facets of criminal justice necessary for review in this study allowed for a comprehensive review of the research that allows for an understanding of what makes up municipal crime rate, as well as impacts brought on by a set of circumstances that local governments could not plan for. Within the framework of the classical school of criminology, the literature provides insight into the effects of booking restrictions, the uniqueness of crime by location, and which responsive techniques provide statistical changes in criminal behavior.

General Deterrence

To understand the variations in crime rate, an understanding must first be developed of the general principles underpinning the United States legal system and its approach to criminal activity response. As a generality, the national ideology may best be summed up through the words of the Hungarian-born academic Thomas Szasz (2002). A fellow of the American Psychoanalytic Association, Szasz was a profound social critic known for his libertarian leanings. Of criminal justice, Szasz once offered, "If he who breaks the law is not punished, he who obeys it is cheated," (p. 36).

As a country built on the rule of law, the United States has traditionally aimed to obtain compliance from the majority by deterring the poor actions of the few. While this is not an ideology strictly practiced in the Union, it is interesting, and worthy of note, how much of the United States' approach has come from foreigners. In designing the nation as a whole, the Founding Fathers drafted the Constitution which was, at the time, the first document of its kind in the entirety of the recorded history of the world. The Constitution granted rights rather than permissions to its citizens and was, by and large, an independently American idea at the time of its creation with no precedent having ever

been set before. The Constitution than by its nature became the primary source of what would become law, but the manners within which those laws would be enforced were left to yet be developed. With a need for creating and developing appropriate efforts of maintaining law and order, early criminologists in the United States clearly sought to borrow from their Italian, British and Hungarian—among other—luminaries rather than build from the ground up. These men—Beccaria, Bentham, and Szasz, to illuminate but a few—were not from the United States, but they have undoubtedly provided a tremendous source of inspiration for the United States' criminal justice system (Cello, 2020). Indeed, Beccaria and Bentham were born before the United States was founded, and would both be dead before the country had even 25 states. Yet, their influence resonates through to modern times and is consistently a source of inspiration, framework, and often, debate.

Returning to criminological theory as it applies to this study, deterrence must be thoroughly investigated because it is, by way of fundamental changes specific to the COVID-19 pandemic, absent in Washington's studied County for most crimes. The term *general deterrence* refers to efforts that aim to restrain a large population from committing crime (Kleck, 2017). In essence, this is what the American legal system is set up to accomplish and what the traditional, albeit perhaps romantic, notion of law enforcement represents: Do wrong, go to jail. Like most mainstream novels and films in American culture that represent good and evil, good nearly always wins. The bad guys might get away with things for a while, but they will always be caught. With this perception in novelty and reality, the general deterrence premise is strong in the United States. Deterrence as a whole, however, is already a source of great contention. Since its inception as a product of the aforementioned classical criminologists and others like

Thomas Hobbes (Lee, 2017), a great deal of study has been conducted, much of which has been mired in conflict. By some accounts, deterrence theory has become less effective in controlling criminality over the last several decades, as Tomlinson (2016) argues. Whether this is because of a notion of punishment acceptance from criminals or increasing social justice advocacy, which pushes for alternatives to incarceration, is not entirely known. Additionally, crimes vary so widely that the focus of deterrence, which is the punishments, are often entirely dissimilar (Natapoff, 2018).

Tonry et al. (2018) noted the American system is indeed intended to follow the logic of imposing punishments that are proportionate to the seriousness of the offense committed. While it is understood that the degree of certainty, severity, and celerity of punishment are the driving forces to reducing criminal activity, the more precise relationship is that it is not in the doing, but in the *perception* of punishment, that has achieved the most gains in obtaining lawful behavior (Patchin & Hinduja, 2018). Due to differing responses to crimes in different parts of the country, however, this perception may not be consistent. Not only do certain crimes receive different punishments based on location, but more and more certain acts are now being legalized in only specific parts of the country, creating further disparity. For instance, some states criminalize driving on a suspended license while others do not, and several states do not suspend licenses for failure to pay fines at all while many still do. Marijuana, too, has been legalized in several states while remaining illegal in others and remains illegal on the federal level. Further enhancing the point using the marijuana example is that it truly runs the gamut: legal in some states, a misdemeanor in others, a felony in a few. Given the proliferation

of disparate information via the internet, it is reasonable that certain acts and associated punishments may become often confused.

Because most people do not commit crime, it could be argued that the majority who choose not to do so are persuaded by their perception of what may happen, not the actual experience of negative consequences. Jails and prisons, for instance, carry significant negative stereotypes as both a place of employment and a temporary place of residence (Stacer et al., 2019). Although it can also be argued the United States over-uses its incarceration facilities, the idea that one's behavior could place them there is a vital counterbalance to the consideration of committing a crime (Gold, 2018). Thus, having jail and prison as a form of punishment—just by their existence—are beneficial in deterring unlawful behavior.

A prime yet straightforward example of particular behavior garnered by the threat of punishment is driving above a posted speed limit. Most people drive, to some measure, over the posted limit (Malhotra et al., 2018). Most drivers, however, keep their excess in speed to a small degree, such as a few miles-per-hour. The perception—keyword here—is that this small flouting of the law will not result in punishment or other unpleasant retribution. Ritchey and Nicholson-Crotty (2011) found that the threat of fines had only a modest impact on behavior. Despite the driving gear or lack thereof, far fewer drivers reach reckless speeds or even double-digit increases over the speed limit because there is a perception that a speeding ticket or citation will ensue. As the behavior deteriorates from a legal standard, the threat of negative recourse increases, causing humans to entertain some degree of balance that they are willing to tolerate. The concept of general deterrence is, then, easy to see as being based on broad-scale logic and studied

effectiveness. Most people can quickly think of several behaviors they moderate out of consideration for adverse consequences. If there were no threat of consequence, there would be no reason for people to not walk out of a bank with more money than belongs to them or to not ride a new Harley-Davidson off of a dealer lot that they had not paid for.

When considering cause-and-effect in terms of certain behaviors being punished, it is reasonably easy to see how general deterrence theory naturally belongs in criminal justice. There are rules and standards in any measure of polite society, and there are efforts to encourage people to abide by them. This doctrine is found in small towns and cities and even among world powers. In terms of global relations, deterrence is often at the core of formal agreements. One nation, for example, may not deal with another in a given area or at all because it could disrupt the peace with a third party (Lockyer, 2020). Some nations, who are generally perceived as politically unpleasant in the world, such as North Korea, claim they have built up their arms to deter actions against them (Ifft, 2017). Given the lack of a war on a global scale since World War II, it is reasonable to believe these efforts work. Furthermore, while there is evidence that deterrence is a foundational principle in community and global peace alike, there is, unfortunately, no one-size-fits-all method to reduce these efforts into practical applications for every community in the United States.

Deterrence is a generalized theory, yet, like most, it has been found to require a specialized application. Robinson (2016) argues that when general deterrence is distributed through the sentencing of individuals, there is a reduction in cohesiveness between law and order. He argues instead for generalized benefits created through clear and consistently applied punishments shaped by community judgment and morality.

Rorie and West (2020) applied a similar ideology to creating a specific ethics code to determine if it prevented corporate crime by communicating the "likelihood and severity" of sanctions to those who were in positions to possibly be future offenders. Their conclusions found that such a code, built around buy-in from stakeholders, can reduce offenses. The concept does not apply to all white-collar crime, however. Dularif et al. (2019) conducted a meta-analysis of tax evasion and noted the threat of audit and increasingly severe penalties had no notable deterrent effect. These studies indicate that deterrence is garnered not through a simple threat of punishment for wrongdoing but rather from specifically applied punishments that fit specific actions that apply to the recourse.

General deterrence, ultimately, may be more effective in large-scale endeavors such as reducing global conflict (Morgan, 2017) than neighborhood-level community crime. While proactive community engagement with neighbors and law enforcement has produced measurable effects in deterring crime (Di Tella & Schargrotsky, 2004; Gill, 2016), the research as a whole tends to indicate that crime is far too broad to interpret generalized deterrent effects based on punishment alone. Instead, deterrence appears to vary based on the specifics of a given crime or behavior, indicating the need for specified studies judging whether specific interventions are effective.

Specific Deterrence

Branching out from a general comprehension of the typical criminal justice approach leads to an individualized facet that focuses on actual offenders rather than the population as a whole. This branch, known as *specific deterrence*, involves the punishment derived by an offender intended to deter future criminality. These retributive

measures focused on who commits the crime are built on the premise that punishment discourages crime (Apel & Nagin, 2017; Bouffard et al., 2017). These repeat offenses are known functionally as *recidivism*.

Understandably, just as in general deterrence, efforts made under the guise of specific deterrence are not effective in every case. This manifests itself quite clearly in cases of repeat offenders and in legislation such as “three strikes” laws that seek to address the problem (Kovandzic et al., 2004). Issues that arise as a result of those initiatives are that some offenders continually recidivate and, in other cases, dependent on the crime, specific retributive effects are not developmentally appropriate when the offender facing the sanction cannot understand the long-term impacts (Najdowski et al., 2016). Juveniles, for example, are often the targets of specific deterrence projects or theories because there is a more considerable value in preventing them from becoming long-term criminals. Because repeat offenders usually *age out* of crime (Farrington, 2019), juveniles are a prime target for effective programming that interrupts the desire to set out on a course of consistent offending due to their potential for extra decades worth of crime. In this category of young offenders, there are significant opportunities to learn about the value of efforts to deter crime. The results, though, are indicative of the difficulty in designing effective programming.

Some critics may argue that juveniles are let off “easy” and thus have no reason to stop committing crimes. These advocates argue that children committing criminal acts should face significant penalties, thus proving they are on the wrong path. Because the majority of youth do not commit crime, penalties are for the majority purpose of setting individual offenders “straight” with a minimal bleed-off effect to discourage other

youth—friends or relatives of the offender—from following in those footsteps. An oft-pursued course of action for deterring juveniles from a life of crime is to transfer their cases into criminal court when possible. In states such as Washington, juveniles are given protections under the law until specific milestones, at which they may face penalties. Under the Revised Code of Washington, juveniles under the age of eight (8) are deemed entirely incapable of committing a crime (Washington State Legislature, n.d.), despite the offense. Under the age of 12, the law states juveniles are *perceived* as incapable of crime, barring significant measures to prove otherwise. From 12 through to adulthood, juveniles may be charged in juvenile-specific court or, in some instances, have their cases transferred to adult court. As Redding (2016) has argued, however, this may not be effective, and deterrence is not achieved through these measures.

Zane et al. (2016), through a meta-analysis of several studies, found conflicting results. For some populations, transfer to adult court did, in fact, reduce recidivism, indicating a specific deterrent effect. In other distributions, however, the opposite was true, and some juveniles were, afterward, more likely to recidivate. This research left open the potential for differences in geography, crime type, and length of sentencing, indicating a need for an area-specific investigation.

Certainty of Punishment

With an understanding of the general philosophies behind the intention to deter crime in hand, the review of the literature can be turned to what it is precisely that deters would-be offenders. It is, of course, only with an understanding of the practical aspects of deterrence that it can begin to be considered whether it is even reasonable for an item such as booking restrictions to play a role in the crime rate. To that end, jail can be,

among other things, a *specific* punishment, even if a person is not ultimately convicted of the crime they were arrested for.

Certainty of punishment is the belief by potential offenders that should they break the law, they will be caught and subsequently punished. Rational schools of thought view certainty as a much more significant deterrent than the severity of punishment, as logical humans will not offend if they know they will be caught. The literature predominantly supports this notion. In works ranging from Walters and Morgan's (2019) research in academic settings to Mungan's (2017) look at repetitive offenses, certainty has shown to be a better deterrent than severity. As Walters (2020) also found, even among college-educated groups, the likelihood of offending increases as the perceived likelihood of apprehension decreases.

Certainty of punishment receives unique standing during a pandemic. As police are, in general society, largely outnumbered by the general population, some areas remain much more sparsely patrolled than others. However, during community lockdowns, the daily activity of any restricted community is reduced, thus freeing up police from standard calls for service and traffic enforcement that may otherwise take up their patrol time. As Kaplan and Chalfin (2019) noted, during average, non-pandemic affected times, increases in policing reduce crime while simultaneously reducing incarceration rates. The net effect that results from an increase in police presence due to decreased pandemic-era call volume rather than from hiring new Officers remains to be investigated.

Severity of Punishment

The degree of punishment severity receives brief note herein only insofar as it is intimately entwined with certainty and celerity. Severity is arguably the facet of

deterrence least impacted by COVID-19 booking restrictions because initial crime actions and arrests come significantly before sentencing. In the studied County, in non-COVID periods, most arrestees are still released on personal recognizance or bond.

In addition to its loose relation of applicability to this study, severity has traditionally been found to insignificantly impact the crime rate. Mourtgos and Adams (2020) examined decisions made by prosecutorial staff in the state of Florida at the county level. They found the severity of punishment alone was the one aspect to have no association with lowering crime. This is consistent with other research conducted in academic circles on violators of all ages (Brink, 2003; Gelb, 2017; Gonzalez et al., 2020; Levitt, 1998; Younie, 2019), as well as with rulings made in various courts to include even Canada's Supreme Court (Fehr, 2019).

Chalfin and McCrary (2017), in perhaps one of the most extensive reviews of the literature in the last 20-years on the subject, found severity to be consistently ineffective in garnering future civility from offenders. Nevertheless, the future is ripe for continued research, as the literature does offer glimpses at times of opposing results. In adults, length of sentencing, i.e., increasing the severity of punishment, has shown only minute benefits in reducing the crime rate (Darley, 2005). Adding to this confusion, the certainty of punishment over severity has both been shown to be a better factor for deterrence (Nichols & Ross, 1990) in some studies, while less effective than severity in others (Friesen, 2012).

Celerity of Punishment

Of the many subsets associated with deterrence theory, celerity of punishment—that is, the speed at which punishment for an act is delivered—has possibly been the least

studied. Called the “neglected middle child” of deterrence theory by Pratt & Turanovic (2018), it may yet be the most applicable to instances where booking authority is reduced. Because being booked into jail immediately after an offense is the ultimate form of punishment celerity, the effectiveness of this facet and its importance cannot be understated.

Traditionalist methodologies in deterrence theory mainly focused on the certainty of punishment and the severity of the punishment, with the latter having been the dominant thought to change behavior for hundreds of years before, as noted, is found insufficient. The research instead indicates that it is not the level of punishment that best deters criminality but rather the swiftness of justice. This effect also seems to apply in areas of civil infractions and most criminal offenses alike (Bhattacharjee & Shrivastava, 2018). Interestingly, continued research on the subject by Buckenmaier et al. (2020) found that deterrence was indeed impacted most with prompt recourse, but that significantly delayed punishment was also useful. It was the middle-ground that proved to have no positive effect on recidivism.

Effectively, what COVID-19-induced booking restrictions have done in the studied County is change circumstances from one where criminals may fear immediate arrest and detention to one where cite-and-release is the norm. In the latter, rather than being taken to a jail facility to be photographed, fingerprinted, and possibly booked into jail, offenders are given a citation with a promise to appear for court at an undetermined date (due to court irregularities also imposed by COVID-19). Many jurisdictions around the country are experimenting with such a process, but the result on the crime rate, as being studied here, is yet unknown.

Absent a mandate to cite-and-release, Dobbie et al. (2018) considered the impact of pretrial detention to determine whether or not incarceration before trial or a plea deal changed the probability of future criminal behavior. In that study, pretrial detention was found to have no net effect on future criminality. However, it increased the probability of a criminal conviction due to a larger number of guilty pleas in those detained.

Related to guilty pleas, it has been estimated that 90% or more of convictions come by way of a plea deal (Redlich, 2010), but that 10% or more of those may be individuals falsely accepting guilt (Henderson & Levett, 2018), a number that is even higher among juveniles (Redlich, 2009; Zottoli et al., 2016). If this data is accurate and able to be replicated, one may surmise that booking restriction, such as those contributed to the current pandemic, could reduce the number of false guilty confessions.

Incapacitation of Offenders

Associated with booking and thus lost, at least initially, in a phase of predominant cite-and-release brought on by pandemic restrictions is the incapacitation effect. Given the close relationship between deterrence and incapacitation—as one leads to the other—a criminal enduring punishment aimed to deter them from specifically doing future harm is also incapacitated at that moment, which allows for a coupled examination of the theories. While Pathinayake (2017) notes that imprisoning offenders on its own does not measure effectiveness of the incapacitation, the incapacitation theory as a general rule posits that the crime rate is reduced when criminals are in lock-up facilities because a small group is believed to commit a majority of crime. As such, if those persons are arrested and ultimately sentenced, they cannot continue victimizing society.

Without law enforcement having the authority to place people into lock-up facilities, criminals are left without celerity and certainty of punishment, while severity remains a constant uncertainty. Mourtgos et al. (2018) found that restricting this type of police authority—in a non-pandemic review—results in an increase in the crime rate. This falls in line with research from Logan (2000), who also determined reducing authority to search a suspect incident-to-arrest reduced the depth of charges levied upon suspects and the likelihood of booking. As a general point, the data behind incapacitation as an effective method of controlling crime has been of interest for decades. Levitt's (1998b) work concurs with others that incapacitation is a beneficial crime reduction strategy. Visher (1987) determined that sentencing practices of the 1970s and 1980s prevented as much as 30-percent of potential crimes due to incapacitation, though at the cost of an exploding prison population and tremendously prohibitive budget concerns (Wagner & Rabuy, 2017). The need for more prison space aside, the research indicating incapacitation is effective in reducing crime creates concern about the potential effects of COVID-19 booking restrictions, leaving thousands of criminals to their own devices rather than being in jails.

While not politically popular on any spectrum, the concept of incapacitating criminals is as old as time. Indeed, the idea of criminal offenders spending time locked away in a jail or prison cell is the typical thought when the idea of crime and punishment is presented. The effectiveness, however, is often argued as it relates to long-term remediation of criminal behavior. Incapacitation, for all of its benefits in the literature, is also not without its detractors and conflicting data. The 2015 paper *What caused the crime decline?* from Roeder et al. (2015) detailed that incapacitation, as a crime control

tactic, has not increased in efficacy for decades, with the peak of usefulness topping out in 2000. Since that time, the researchers found that incapacitation has not increased in effectiveness as a tool to reduce crime ever since. The researchers were, however, unclear what effect the opportunities made available to offenders while incapacitated may have taken over. In that regard, an often-unconsidered variable is that in some jail and prison facilities, there are programs for offenders intended to increase post-release opportunities. Applegate et al. (1999) noted that what they considered *new generation jails* not only do not increase recidivism rates but may reduce them. Obviously, in times of booking restrictions or direct-to-probation sentencing, these programs are not made available to offenders, and that factor alone may contribute to increased criminality.

As it relates specifically to the early release of inmates ordered by Washington Governor Inslee, there has been a strong concern as expected from citizens about bringing those who have not served their full sentence back into local communities. In addition to the numerical crime rate, there are also citizen concerns causing mental anxiety that are beyond the scope of this study. However, whether their concerns are well-founded in actual results of crime has been studied in the past. While some studies show that early release does not impact the crime rate beyond a modest level (Lofstrom & Raphael, 2015), the release of these particular DOC offenders in response to COVID-19 "safety" measures from Washington's governor may indicate differently (Choe, 2020).

Attempts to also determine the societal impact on early inmate release have been taking place for decades. As a result, researchers have looked at what, if anything, these efforts have done to their locations of study. Austin (1986) reviewed subsequent years of crime after early releases and found that while early release did not increase the

probability that a released inmate would commit more crime, that rate remained steady. Further, he found that the amount of crime in society increased substantially. Recidivism, which is an on-going concern in the criminal justice system everywhere, can indeed be incredibly high. In California, as of 2014, for example, prisoners had a generalized 64% recidivism rate within three years of release (Petersilia, 2014). This rate would take into account prisoners let out for all reasons, to include any work release programs or early release initiatives. This high rate found in California is concurrent with rates found in Montana by Wright and Rosky (2011). There, in the Big Sky state, the Department of Corrections tested an early release program for inmates who were identified as eligible under set criteria and put forth an application. Comparing that program to traditional parole, the early release offenders were found more likely to recidivate. Of interest, Wright and Rosky surmised that one possibility for offenders released early being more likely to commit a new crime is that early release may create a psychologically significant reduction in deterrence effect.

These results lead to needing to determine what the research says about a community's invested interest in reducing crime, such as what level of fiscal or other burden is commensurate with changes in crime rate. Allen (2002) found that people in his surveys did not think prison to be a beneficial way of reducing crime and that most believed people who go into prison come out "worse" than they went in. With this level of discontent with the current system that trends around the world, therein lies a question as to how the system has resorted to this end result time and time again. People seemingly do not believe that the prison system is an effective method to solve societal woes, yet they despise crime and largely desire to see people punished for wrongdoings.

This premise, of punishment being considered a deserved result of a bad action, is in criminal justice called *just deserts* (Braithwaite & Pettit, 1992; Carlsmith et al., 2002).

Just deserts, as Carlsmith et al. (2002) notes, is a rationale for punishment that is intended to be equal to the moral wrong committed by the offender and is strongly supported by the public (Gerber & Jackson, 2013). Due to public support, there is an odd contrast with the lack of trust in the prison system. One can suppose that respondents to such questions are indeed interested in repercussions for criminal behavior while at the same time having little faith in them achieving appreciable reform in prison. This, then, leads to the extensive use of incapacitation as a punishment, as people wish for their offenders to no longer be a danger to society (Darley et al., 2000). This intertwining of criminological theories that puts notions of psychology within premises of deterrence, incapacitation, retribution, and other efforts, underlies the significant complexity of the criminal justice system as a whole and the difficulties in championing effective reform measures.

Framing just deserts within the timing of COVID-19 restrictions, there is also an interesting contrast regarding the types of crime, the likelihood of re-offense, and the desire for the bad actor's punishment. Some studies suggest that people are angrier about crimes of fraud and deceit—think Bernie Madoff and Ponzi schemes as a generality—than they are simple assaults that may occur during a disagreement between two adults. However, during a period of booking restrictions, the former cannot be booked into County Jail, while the latter might be eligible. The question of which of those parties could do more significant harm to society and to what degree they could affect people's lives is a valid one, and one perhaps left without consideration during this time frame.

The booking restrictions in place in the studied County are, decidedly, claimed to be for the health of inmates and those around them. There is evidence that viruses like influenza do spread rapidly in jail facilities (Maruschak et al., 2009) and the measures appear by all accounts well-intentioned. The concern is that if one person with COVID-19 were to be booked into an incarceration facility that the virus could spread rapidly, and many serious injuries or deaths could occur. In this case, the government's interest is in reducing the population, and in doing so, they chose to select crimes not to book to keep the number of human contacts down. The question then becomes whether or not only booking violent crimes is the best method of keeping criminals, as well as society, safe. In an ideal circumstance, there would be a system set-up in which a balance was found between keeping society as safe as possible while also managing the public health risks. It is, unlike the County proposes, not necessarily in the public health interest to simply not book *non-violent* crimes.

Broadhurst (2000) and Piquero et al. (2012) have found in their studies that violence is sporadic in a career criminal's career. Absent the particular category of domestic violence, in which an abuser repeatedly offends against known persons, most criminals who commit violent crimes are not of a high likelihood to commit violence on others (Quinsey, 1995). In contrast, property-oriented criminals are regularly found to re-offend (Schneider, 2003; Sutton, 2008). It may, on a grand scale, prove that society is not best served by the booking restrictions put into place due to COVID-19. If a small group is committing a large percentage of crime—such as shoplifts, burglaries, frauds, and other crimes that lend themselves well to an organized component or element—then only

incarcerating the group of offenders who are already least likely to re-offend may not be the ideal approach.

Binder and Notterman (2017) argue that incapacitation is ineffective in reducing crime as prison populations have exploded over the last several decades, indicating that the concept is not working. Data in response dictates that the United States, in particular, is safer now during this period with expansive prison populations than in the past, with the crime rate only roughly half today what it was in the early-1990s (Friedman et al., 2017). While no cause-and-effect relationship has been established, and however unpalatable it may be to have millions of Americans incarcerated, there is a correlation between safer streets and higher populations serving jail or prison sentences. Another consideration, although much more difficult to quantify, is the intangibles for the citizenry when criminal justice is working in its traditional form, and people are being put in jail. There remains the possibility, among any correlation, that there are undesirable side effects on one end. Benefits of any kind, in any subject, may then produce some negative consequences. In criminal justice and its response to crime, it is not unreasonable for people to not enjoy crime while not wanting people to lose years of their lives incarcerated. The two, however, are difficult to reconcile and may rest in one's own desire to feel internally comfortable in their surroundings.

Mental health is a profoundly important health metric in people, and their feeling of victimization can leave long-lasting impacts internally. In older populations, for instance, the elderly maintain a great fear of crimes such as burglary despite the risk being very low (Mawby, 2004). However, returning to COVID-19 booking restrictions, burglary is a crime for which the County Jail in the studied area will not book someone,

while they will do an intake for someone arrested for domestic-related simple assault. Here the contrast is that the former crime, considered a *property crime*, is a felony with lasting deleterious impacts on the victim, yet the bad actor faces no immediate punishment. On the other hand, the suspect arrested for a misdemeanor assault, a *violent crime*, which may have occurred between two former friends with little likelihood of expanding to uninvolved victims, will be locked up and incapacitated. Each is a human that could be left free to reduce COVID-19 contacts, yet it would appear the one left free in this scenario has more significant potential for further negative societal impact and a higher reduction in quality of life.

Quality of life is, of course, another aspect of daily living that is being affected in some direction by the booking restrictions induced by COVID-19, though perhaps not as straightforward as one may think at the outset. Cohen (2008) found that overall county-level crime rate does not significantly impact a person's overall life satisfaction, while being the victim of a crime such as a burglary has a profound effect on their life, the equivalent of which can be considered going from "excellent health" to "good health." In this sense, it can be presumed that people are not terribly concerned about crime until they are victims of crime. If booking restrictions do, in fact, lead to an increase in victimization, then it is also possible that these booking restrictions could be inducing a public health crisis that may take many years to manifest. This possibility may be going unappreciated or unconsidered in the literature. Binder and Notterman (2017) wrote in their work that there is no benefit to incapacitating offenders based on their potential to re-offend. Nevertheless, again, in contrast, many studies indicate that a very small number of offenders commit a vast majority of crime (Falk et al., 2013; Liggins et al.,

2019), indicating incapacitation of at least some offenders does have an effect on reducing future crime, on top of the potential health impacts.

Related to the most violent of crimes, in particular, Kleinstuber and Coldsmith (2020) examined data collected by the *Sentencing Project* to determine if states that issue sentences without the possibility of parole more frequently are safer. Their work suggested life sentences without parole may correlate with a reduction in violent crime, but no more effectively than life sentences that do offer parole. The common ingredient then, in effect, was lengthier sentences of convicted offenders. This speaks again to the likelihood that incapacitation is effective even if the subset of in practice—in this case, parole—is not itself effective.

Associated with incapacitation pursuant to this study is the release of inmates from Washington State jails and prisons as a result of COVID-19, which then may impact the crime rate during the pandemic. Various media outlets have, over time, made the state's population aware of crimes that have occurred since inmates were released, indicating at least anecdotally a beneficial effect of incapacitating offenders. Among the crimes committed by inmates who were released early include vehicular homicide by a subject with over 30 prior arrests and more than 40 failures to appear in court (Frame, 2020). The overall effect on crime from areas around the country that have released inmates early due to COVID-19 will take years beyond the end of the pandemic to fully review, but the backlash thus far has been severe. In California, for instance, the measures have even played a key role in attempts to recall the Governor, Gavin Newsom (Betz, 2020).

While the world as a whole has been forced to grapple with the many issues presented by COVID-19, criminal justice agencies have been uniquely impacted due to their myriad of responsibilities. Law enforcement is responsible to its stakeholders, the communities they serve, and those in their custody to include those who are accused of crimes and awaiting trial and those convicted and already serving their sentences. It is well-established that those in jails and prisons are more susceptible to a variety of health conditions (Fazel & Baillargeon, 2011; Kinner et al., 2020; Maruschak et al., 2009), and thus present challenges in general scenarios, let alone amidst a pandemic.

Efforts to keep communities and incarcerated persons safe have led to a desire to reduce the contact between persons, and in many cases, the release of these sentenced persons and the prevention of booking suspected criminals. This has led to an untold number of persons accused of crimes or convicted of such, back into a society that in other times they would not be a part of, upending the concept of incapacitation to an untold degree.

Law enforcement response to COVID-19

Data is currently growing in the United States as to what effect, if any, COVID-19 responses have on the crime rate. Research related to actual crime impacts of COVID-19 has been slowly developing due to the scarcity of available data since the virus was declared a pandemic by the World Health Organization in March of 2020. While some analysis has been conducted, the results have been mixed, lending again to the regional differences of crime and the need for area-specific research. Other nations have also conducted some preliminary studies relating to the early part of the pandemic. In London, for example, Sun et al. (2021) speculated that as COVID-19 infections increased, the area

crime rate would decrease. Results of their work found that in the early portions of the pandemic, March through May, 2020, crime rate did not actually change significantly with infection rate, particularly in the areas of violent crime, but rates of crimes associated with persons and residences in non-violent circumstances, such as burglary and theft, did experience a negative association with COVID-19 infection rates.

Stickle and Felson (2020) called COVID-19 the *largest criminological experiment in history* and also attempted to determine the impacts the pandemic had on crime rates as a whole. Their work, after reviewing available national data within the first half of 2020, revealed an exceptionally complex and, at times, an incoherent array of differential data leading further to the need for independent study of particular areas.

Diving into the literature and the data examining the crime response to COVID has been inconsistent, at best, both across total numbers as well as when reviewing particular types of crime. The only constant, perhaps, is that the effect on crime as a result of COVID restrictions—stay-at-home orders, activity limitations, and police response alterations—has no uniformity.

Shayegh and Malpede (2020) reviewed early data in San Francisco and Oakland and found a roughly 40% reduction in crime in both major California cities. The reductions came from profound drops in the number of reported thefts, traffic collisions, and homicides. Occurrences labeled domestic violence, however, showed no significant differences. Interestingly, this did not appear to apply down the coast to Los Angeles. Using the most populous city in the state as their area of review, Campedelli et al. (2020) reported a similar reduction in shoplift-related thefts and robberies but found no change

from pre-pandemic levels of motor vehicle theft, burglaries, felony assault, and homicides.

Ashby (2020a) also reviewed data from 16 large cities in the United States using a seasonal auto-regressive integrated moving average (SARIMA) model. Comparing the expected crime rate for 2020 with the available data that resulted from the pandemic, he found there to be no change in the occurrence rate of serious assaults and non-residential burglary. There were, in some areas, small reductions in burglary to residences, but this was not uniform. Similarly, vehicle theft rates did not change in some cities while experiencing a decrease in others. Ashby's review included large west coast cities such as Los Angeles, large Midwest cities like Dallas, and major east coast locations like Baltimore, but did not review any areas in the Pacific Northwest.

Later, as Ashby (2020b) continued reviewing impacts on law enforcement as COVID-19 remained surging around the globe, he reviewed data once again, this time using ten large cities, and how their overall call volume may have changed. In line with earlier works, traffic collisions were significantly reduced early in the pandemic but began to increase over time, and a variety of incident types, such as responding to found dead bodies, profoundly increased. Notably, and necessary to point out, is that reviewing crime by call type is a difficult and likely unreliable endeavor due to variations in how jurisdictions label calls for service. A particular call being labeled a given crime also does not mean a crime was actually committed, as a majority of all calls for service are cleared by police with no crime resulting from their response. Boman & Gallupe (2020) also made assessments of how call volume in all police agencies studied dropped significantly during the pandemic—especially in the early phases—but again, this is a highly

unreliable data point to determine criminality. With some research estimating that as few as 20-percent of police calls for service relate to crime (Vaughan et al., 2018), it would be irresponsible to infer a reduction in calls for service means any measure of progress in safety. Instead, it is likely that fewer calls to the police are indicative of a reduction in nuisance calls and welfare checks resulting from strict lockdowns that were implemented across the country as a means to reduce the spread of the coronavirus.

Bullinger et al. (2020) actually looked at the very possibility that there were underlying increases in crime despite there being fewer calls for police service. Their work, stemming from the city of Chicago, found the Stay-at-Home order there did reduce the overall requests for law enforcement. They also found, however, increases in calls related to domestic violence, which was similarly reported in San Francisco (Kingkade, 2020). This contrasts some international studies (De la Miyar et al., 2020; Gerell et al., 2020) that show domestic violence crimes were reduced during lockdown phases, while simultaneously crimes such as homicide, robbery, and kidnapping were unaffected. In London, where lockdowns have been traditionally longer and more severe, researchers (Sun et al., 2021) found crime largely unaffected by COVID-19 restrictions, with the exception of crimes related to theft, which dropped significantly due to the closure of most shopping outlets. All of these works speak strongly again to the regional associations of crime.

Mohler et al. (2020) identified an expectation that crime would be significantly disrupted due to the overall scale of life change the pandemic brought on. Their focus on the implementation of social distancing indicated a perception that crimes against people, in particular, would be substantially reduced due to people taking increased ownership of

their properties and their self-removal from the most common places of victimization. By people remaining home, burglars are discouraged from breaking into residences, and people are not in the public where the majority of violent crimes occur. These protections, if that term may be applied, should theoretically apply to all persons around the country if crime were akin to a constant principle. It is, however, as research continues to show, not to be. Through a review of early pandemic data in both Los Angeles and Indianapolis, both having undergone stay-at-home orders and restrictions of personal liberties, the researchers found some crimes were vastly reduced. However, the overall effect on crime was far less than anticipated. Particularly notable is the stark contrast between the cities. Burglaries, Mohler's team went on to note, were significantly reduced in Los Angeles but not in Indianapolis. Robberies, likewise, were roughly unchanged in Indianapolis but notably down in its comparison city. Finally, they found that for both, assaults carried on as normal.

While COVID-19 restrictions were intended to stop the virus itself, the hidden consequence may be the impact on in-home violence (Mazza et al., 2020). While shoplifts and other crimes that occur in the open may be reduced due to fewer opportunities—stores being closed and traffic being reduced, for instance—a potential driver for increases in crimes may result from people being closer to one another. Domestic violence, which can include assaults of family members and romantic partners, property damage, threats to harm, and other crimes, is one of the seemingly rare upticks throughout the United States. Despite different approaches to combat the pandemic, stay-at-home or shelter-in-place measures seem to correlate strongly in any location with domestic incidents (Anurudran et al., 2020; Boserup et al., 2020; Kofman & Garfin,

2020; Piquero et al., 2020), and the increase appears driven by homes that have had no previous calls to police for these types of calls (Leslie & Wilson, 2020).

It is reasonable and supported by the literature that particular crimes are reduced due to mobility or lack thereof (Halford et al., 2020), but this review shows this could be limited to certain areas for a myriad of untold reasons.

Geography and State Guidance

Although consistencies exist in numerous crime considerations, one aspect that creates a gap in the literature when attempting to review the effects of specific interventions is geography. Crime is not consistent across towns, cities, states, or regions (Hipp & Kubrin, 2017; Wenger, 2019), indicating the need for studies such as this to be conducted in individualized areas. As different areas of the United States maintain variations in ethnic make-up, socioeconomic status of neighborhoods, and policing tactics, effects on crime rate due to particular variables are not universally applicable. The initiation of COVID-related restrictions has also varied significantly across the United States. For instance, the Governor of Washington Jay Inslee proclaimed, a State of Emergency on February 29, 2020, as a result of the coronavirus outbreak, while other states delayed several weeks longer before initiating their own declarations.

The prevalence of crime is, of course, ever-changing based on local politics and urban planning, as well. Subica et al. (2018) found that something as simple as the location of tobacco retailers, medical marijuana stores, and outlets that sell alcohol are predictive of higher crime areas in a city. Similarly, areas with lower home values are also known to experience more vandalism and violence than those in higher valued areas (Hipp et al., 2019; Wang & Immergluck, 2018). With areas varying so significantly in the

types of residential structure and business activities permitted, crime response research in one county is not necessarily indicative of similar response(s) in another.

Summary

The literature is undoubtedly broad related to the issues underlying the concept of not jailing suspected criminals or keeping those found guilty incarcerated. By not incarcerating suspects, the criminal justice system is wholly upended as it relates to its historical framework of deterrence and incapacitation. Undoubtedly, the system loses the concept of punishment celerity, minimizes the impact of punishment severity, and draws into question punishment certainty. General deterrence is thus deterred itself due to a growing perception that there is no longer law and order at play, and specific deterrence is crippled because those committing crimes are most often left to quite literally walk away from the scene(s) of their crime(s). These ideas at play have, quite literally, never been seen to this degree before. The coronavirus pandemic has provided the rarest of circumstances to test methods of dealing with crime that would have been unthinkable sans a deadly virus with an exceptional rate of spread. Indeed, while some progressive thinkers may have always wished for an immense drawdown in incarceration rates, the degree to which that desire has come to fruition as a result of COVID-19 would have been likely unfathomable during any other period of time. The virus has quite simply caused a response to crime that is very much different than theories that have been thought of and proposed since the very founding of our country.

The United States' first Secretary of the Treasury, Alexander Hamilton, is famous for many things, including his efforts at authoring the lion's share of *The Federalist Papers*. He comprised, along with James Madison and John Jay, 85 essays that were

written to convince residents of New York to support the ratification of the proposed United States Constitution. The words included therein have long been looked to for guidance on many facets of the nation's subsequent operation. Like most aspects of the American way of life, law enforcement and criminal justice are topics that Hamilton addressed that are still pertinent today. He wrote, in *Federalist No. 15*, words that speak directly to the ideas of deterrence:

It is essential to the idea of a law, that it be attended with a sanction; or, in other words, a penalty or punishment for disobedience. If there be no penalty annexed to disobedience, the resolutions or commands which pretend to be laws will, in fact, amount to nothing more than advice or recommendation. This penalty, whatever it may be, can only be inflicted in two ways: by the agency of the courts and ministers of justice, or by military force. (Hamilton et al., 2008)

These words, published December 1, 1787, are cause for significant consideration, even more than 230 years later. COVID-19 has, in the studied County, changed much criminal behavior from acts that inspire immediate consequence to, in Hamilton's words, mere advice. Thus, the question becomes whether penalty and punishment prevent crime and recidivism better than that brand of advice or recommendation.

Traditionally, as the literature has shown, deterrence and incapacitation are effective, albeit expensive, responses to crime. A small number of offenders have been identified as committing a large amount of crime, and removing them from the general population reduces their oversized impact. However, removing offenders from the population has created a mass increase in persons incarcerated throughout the country. Those large jail and prison populations, though, while indeed growing, are correlated

with the safest period on record in the United States. Nonetheless, the research is clear that inmates are at higher risk of ill-health and contracting infectious diseases, complicating standard practices during a global pandemic and begetting an internal and external debate alike as to whether the efforts to protect them are worth the as-yet-unknown effect on crime.

CHAPTER THREE: METHODS

Overview

This study is a non-experimental design used to examine the impact, or lack thereof, between County-level decisions regarding in-custody bookings and the corresponding crime rate as viewed through the grassroots indicator of calls to 911. The study is based in a large Pacific Northwest County in the United States. This chapter discusses the research design, parameters, data collection, study analysis, and ethical considerations involved.

Design

Quantitative study provides a solid base for comparing actual events, to include the ability to compare how events over time may increase, or decrease, when compared with simultaneous interventions elsewhere in the field. This study is intended to compare crime rates over two subsequent years, with one being a time of significant change in the criminal justice field, and as a result is based in quantitative nature. The dependent variable herein is *crime rate* as measured by calls to 911 throughout the studied County and the independent variable is *COVID-19-induced booking restrictions*, which have significantly reduced the jail and prison bookings in the study area. The best design for comparing these variables was determined to be a paired samples t-test, as the design is built to describe the effects of phenomena occurring over time among a constant population (i.e. the County), and allows for a measuring whether or not the given relationship is statistically significant.

Several factors influenced the design of this study. Foremost, the catalyst for the research comes naturally as a result of world events. The COVID-19 pandemic was, by

all accounts, unexpected and incredibly disruptive to communities across the world. Politicians and other leaders throughout communities made numerous changes to daily life that have the capacity for profound changes on many fronts that could not be imagined beforehand. Either due to time or necessity, efforts to reduce the spread of the virus proliferated quickly, inevitably at times with unknown consequences. One manner included the treatment of persons arrested for criminal activity. Intended to reduce the spread of COVID in incarcerated populations, significant booking restrictions were put into place to provide greater space among inmates in jail and prison facilities. Such an effort has never been attempted before, and the consequence of leaving people in the population who otherwise would have been incapacitated, and perhaps deterred, by jail time, never tried. Although a result of a terrible public health crisis, the landscape for intriguing research nonetheless presented itself.

Incarceration costs communities, those in cities, counties and states as a whole, an immense sum of money. To be sure, line items for jailing criminals, suspected and convicted alike, are in budgets at every level of government. As conditions in jails and prisons have deteriorated over time as facilities age and treatment requirements improve, along with populations ballooning over the last several decades, the budgets tend to continue growing larger and larger. It becomes curious as to whether that money is being spent in the manner best suited to keeping communities safe. With most people no longer being taken to jail after committing crimes due to COVID precautions, review of community conditions as a result offer promise for information relating not just how to best handle the next health emergency, but perhaps an opportunity to entirely reevaluate the criminal justice system.

Because the information studied involves public information of events previously occurred, no experiment was introduced by the researcher and as such, no variables manipulated. The research is based, instead, on studying the significance of naturally occurring events that unfolded unabated overtime. Advantages to this methodology include preventing bias and inaccuracies related to the potential of accidental data manipulation. Additionally, using data available as public information allows for convenience in conducting the study, and for enhanced scrutiny of results.

Research Question

The research question at the core of this research is as follows:

RQ1: Is there an increase in the crime rate when COVID-19 booking restrictions are in place in a large Pacific Northwest County?

Hypothesis

The hypothesis associated with this study is as follows:

H₀1: COVID-19 booking restrictions lead to an increase in the crime rate in a large Pacific Northwest County.

H_a1: COVID-19 booking restrictions have no effect on the crime rate in a large Pacific Northwest County.

Participants and Setting

A particular strength of this study is the completeness of the population and the data in question. Within the County, nearly all law enforcement agencies are dispatched to calls for service through the use of one entity. That entity, a dedicated communications and records center, is responsible for the receipt and dispatch of citizen and visitor requests for police services. The communications center is the gatekeeper to law

enforcement for people living in the jurisdictions of more than 20 police departments in the studied County, to include the 10 largest. Those agencies alone, sans the Sheriff's Department, account for more than half of the entire County population. The Sheriff's Department itself covers all of the unincorporated areas of the County, which consists of more than 40% of the overall population. When combined, the communications center records contain information stemming from nearly everyone living in the County. This makes their data pertinent and valuable for research. At the same time, using this data is advantageous in a two-fold perspective. In addition to the benefits described as being a very complete data set, the data is strictly numerical and not indicative of any persons or their identifiable information. The data is, thus, useful for study while also being actionable, and yet there are no ethical considerations when using said information because it is considered archival.

Because the data used in this study is archival, there are no active participants. Instead, the data stems from the actions of the population and their need to dial 911 to report a crime, infraction, nuisance, or a variety of suspicious circumstances. As aggregates, the United States Census Bureau reports that as of 2019, the studied County has a population of more than 900,000 made up of 74.3% people identifying as White, 7.7% as Black, 7.1% as Asian, 1.8% as American Indian, 1.8% Pacific Islander, and 7.4% identifying as two or more races. The gender breakdown is 49.9% male and 50.1% female, and persons 65 years of age and older represent 14.2% of the county population. In sum, these statistics are provided for reference only and for relatability of the area of study, as no persons were identified in any way for this research.

With the whole of the population of the County understood as the population, the

sample then is understood to be consisting of nearly all (100%) 911 calls dispatched from that population and visitors. Visitors would qualify as anyone dialing 911 within the borders of the County, or persons calling for police assistance at an address located within the County. While this variance may slightly alter the actual amount of 911 calls from County residents, it is a constant and thus not a concern for the research. In essence, visitors have always, and will always, call 911 when traveling through the County, and there is no reason to believe this changed during any part of the study period to a deleterious degree.

A final consideration for the large sample size is that it satisfies the minimum sample size necessary for statistical validity. Fosdick and Raftery (2012) noted that in various tests of significance, all performed similarly with a sample size of 50. However, Schonbrodt and Perugini (2013) found that for the most stable of estimates in correlational work, sample sizes should be roughly 250. By either measure, this study uses 100% of available data in year-over-year comparison and, in turn, thousands of data points, thus more than enough to satisfy necessary sizing.

Instrumentation

Due to the use of archival information broken down by proprietary call type into simple numbers, no survey instruments or tools for obtaining fresh data were necessary to be used. An advantage provided by this use of prepared data includes preventing a bias in response and ensuring no conflict of interests occur, as the researcher is not involved in creating the data spreads.

Procedures

The initial step necessary for this research was to contact the Institutional Review

Board (IRB) at Liberty University to determine the necessity of obtaining IRB approval. After confirming with the University that the study was exempt from IRB approval due to a lack of human participants and identifiable information (see Appendix A), the study was able to move forward with data collection. Data collection had been previously determined to include calls for service data for law enforcement agencies located in the area of interest, pertaining to the number of calls related to 13 different serious crime call types, broadly representing criminal activity in the study area.

Upon approval to commence data collection, a record's request was made with the 911 communications center that is holder of the necessary information. The information requested was monthly data related to call types that included criminal activity in matters such as assault with a weapon, assaults not in progress, strong-arm robberies, armed robberies, shootings with victims, shots heard with no victims, drive-by shootings, homicides, motor vehicle thefts, rapes, domestic assaults with weapons, and residential and commercial burglaries. Civil matters, mental health issues, and suspicious behaviors were excluded from the study due to their lack of criminality in nature and, thus, being out of scope. The data requested included 12 months of calls for service information roughly in line with the year prior to the implementation of COVID-19 jail booking restrictions in the County. The data request then also included one year of call volume during the time frame within which the County operated under the booking restrictions. The time frames most appropriate to accomplish a reliable comparison were determined to be February 2019 through February 2020, and February 2020 through February 2021, respectively. This information was made via an online request through the communications center website which maintains a portal for such public record

requests. The data was then provided via e-mail to the researcher.

Once the calls for the service numerical data was obtained, the information was then manually transferred to SPSS for use in paired samples statistical tests. The data was entered as aggregate whole numbers being separated by month and year prior to COVID-induced booking restrictions and subsequently the first year during booking restrictions.

Data Analysis

Using the data received from the communications center, the hypothesis in this research study was able to be tested in SPSS. SPSS provides numerous tools to examine data, and a series of tests were conducted to examine potential significance. Significance of effect in this study was examined using paired sample t-tests for the production of numerical results indicating the relationship between the independent and dependent variables, and Cohen's d was calculated separately to produce effect size.

CHAPTER FOUR: RESULTS

The relatively straightforward analysis of trends via 911 calls for service allows for an understanding of multiple facets of crime occurring in a given area. Calls for service do align with crime trends, and are also able to give a more specific look at criminal activity from a specific geographic location. This is due to there being inconsistencies in reporting through other, however more common, databases such as the FBI's UCR Crime Stats. Contributions to most databases have long been largely optional, creating disparities among data. When looking at a particular County, such as in this study, and how it endures certain crime, inconsistent reporting to federal databases would prevent accurate analysis on a complete scale. Due particularly to this reason, this study used existing data directly from a large metropolitan county dispatch center for the purpose of determining if a correlation existed between criminal booking restrictions and crime rate as calculated through 911 calls.

Sample

Soundness of this study is increased due to the strength of the sample. The dispatch center maintaining the data for this study differentiates calls for service based on their type and their outcome. It is the outcome measure that creates this increased value, as it indicates that the end result of how a call for service is classified is determined by a trained police officer. It is not uncommon, for instance, for a citizen to call 911 stating they have been, "robbed," when they return to their vehicle in a parking lot and find it to have been vandalized. Legally, this does not constitute the felony crime of robbery, although it may, depending on the 911 call taker's inference, initially be dispatched as such. It is thus important, particularly in statistical analysis, to ensure that call types are

ultimately accurate. The dispatch center in this study offers quality practices to ensure accurate call typing by allowing Officers to change call type when appropriate to do so. Often, these decisions not only stem from the patrol officer(s) initially dispatched to handle the call, but also their supervisor or training officer. This creates greater cohesion in the quality of the data.

Due to the proper assignment capabilities of a call for service, the sample in this study was taken after removing insignificant calls and calls that were improperly addressed. The dispatch center was able to remove from the data collection calls which were determined to be *unfounded*. An example of this would be a 911 call initially dispatched to Officers with the county dispatch code *SHOOT*, indicating a shooting had occurred with a victim involved (as compared to *SHOTS* which indicates a shooting with no victim). For calls where Officers arrived and found this initial information to be true, the call type remained *SHOOT*. However, on calls where Officers learned that the call was false or misrepresented, the call type was changed to its appropriate type or cleared as unfounded, preventing the creation of a formal report.

With unfounded calls removed from consideration, the sample was left with calls that were accurately considered as being dispatched with their appropriate codes. For this study, because the intention was to look at crime rate as determined by calls for service, a large sample of criminal activity reports were included. The analysis did not include the numerous types of calls that police officers often respond to that are not criminal in nature. Among the call responses not included were welfare checks, suicidal threats, motor vehicle collisions, found property, lost children, juvenile runaways, and other instances that generally could not involve arrests or judicial review.

Instead, included calls were limited to a wide measure of criminal occurrences which resulted in a written report (independent of custodial arrest or citation), listed as follows along with their appropriate dispatch code:

Assault with a Weapon (ASW)

Assault not in Progress (ASN)

Strong-arm Robbery (ROBS)

Armed Robbery (ROBA)

Shooting with Victim (SHOOT)

Shots heard with No Known Victim (SHOTS)

Drive-by Shooting (DBSHOTS)

Homicide (DOAH)

Motor Vehicle Theft (MVT)

Rape (RAPE)

Domestic Assault with a Weapon (DVW)

Residential Burglary (BUR)

Commercial Burglary (BURC)

Data Collection

The data for this study was collected from a dispatch center representative who created the tally for the requested call types and provided it via e-mail in September, 2021. Data was provided to the researcher in a Microsoft Excel spreadsheet, from which the analyses herein were conducted. The data was not manipulated in any manner by the researcher and was copied directly from the Excel spreadsheet into IBM SPSS for analysis.

The raw data provided appeared as follows:

Table 1

CALL TYPE	TOTAL 02/2019-02/2020	TOTAL 02/2020-02/2021
ASW	474	513
ASN	3300	3600
ROBS	744	1150
ROBA	890	947
SHOOT	170	243
SHOTS	2435	3301
DRIVE BY SHOTS	153	195
DOAH	29	41
MVT	4200	5250
RAPE	665	683
DVW	553	1084
BUR	3316	3036
BURC	1800	2107

Data Analysis

The necessary analysis of the procured data involved determining whether there was a statistically significant change in crime rate as determined by calls for service between two periods of time with a distinct intervention occurrence taking place between those periods. The two periods were distinctly differentiated by the implementation of

booking restrictions at the County Jail. To prevent the spread of COVID-19, the County jail in the Pacific Northwest area of study significantly reduced its jail population by limiting what crimes would allow a custodial booking of an arrestee. With vastly fewer bookings, a majority of suspected offenders were left free on their own recognizance with no immediate recourse for their actions. This allowed for the question to be raised as to whether such an effort increased criminality in the area of study by leaving potentially serial offenders free to potentially continue their misdeeds. To determine the relationship between the intervention and criminality, 13 major crimes were examined in this study.

Outliers and Normalcy

Prior to analyzing the accumulated data with paired samples t-tests, the data was assessed for outliers and for normalcy in distributions. In looking for outliers, being those results detected more than 1.5 box-lengths from the edge in a boxplot, five were noted among the 13 call types. One outlier existed in each of the categories for ROBS, SHOTS, DOAH, MVT, and BUR. However, because the outliers were minimal and none were found to be extreme (indicated by a result of three or more box-lengths away from the edge in a boxplot), the results were kept in the conducted analysis.

In checking for normal distribution, a Shapiro-Wilk's test was conducted on each set of variables. In such a test, SPSS provides results in the "Sig." column. If the result of the test is $p > .05$, this indicates that the data is normally distributed. Among the data used in this research, differences between pre-COVID intervention and post-COVID intervention crime rates resulted in p-values ranging from $p = .155$ (SHOTS) to $p = .830$ (ASN), indicating all data herein achieves normalcy in distribution as assessed by a Shapiro-Wilk's test.

Figure 1

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ASWdifference	.166	12	.200 [*]	.959	12	.775
ASNdifference	.126	12	.200 [*]	.963	12	.830
ROBSdifference	.224	12	.098	.934	12	.427
ROBADifference	.153	12	.200 [*]	.965	12	.857
SHOOTdifference	.167	12	.200 [*]	.961	12	.796
SHOTSDifference	.181	12	.200 [*]	.899	12	.155
DBSHOTSDifference	.177	12	.200 [*]	.950	12	.640
DOAHdifference	.250	12	.037	.902	12	.170
MVTdifference	.187	12	.200 [*]	.913	12	.230
RAPEdifference	.203	12	.186	.923	12	.312
DWWdifference	.143	12	.200 [*]	.925	12	.329
BURdifference	.130	12	.200 [*]	.939	12	.488
BURCDifference	.128	12	.200 [*]	.955	12	.706

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Results

Assault with a Weapon (ASW)

Calls for service of this call type increased after booking restrictions were put into place ($M = 42.75$, $SD = 8.38$) compared to the period immediately prior which did not restrict bookings ($M = 39.50$, $SD = 7.42$). The booking restriction period incurred a mean increase of 3.25 calls for service, 95% CI [1.41, 5.09] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 3.89$, $p < .003$, $d = 1.12$.

Assault not in Progress (ASN)

Calls for service of this call type increased after booking restrictions were put into place ($M = 300.00$, $SD = 40.82$) compared to the period immediately prior which did not restrict bookings ($M = 275.00$, $SD = 38.45$). The booking restriction period incurred a mean increase of 25.00 calls for service, 95% CI [16.21, 33.79] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 6.26$, $p < .001$, $d = 1.81$.

Strong-arm Robbery (ROBS)

Calls for service of this call type increased after booking restrictions were put into place ($M = 95.83$, $SD = 12.04$) compared to the period immediately prior which did not restrict bookings ($M = 62.00$, $SD = 11.22$). The booking restriction period incurred a mean increase of 33.83 calls for service, 95% CI [25.71, 41.96] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 9.16$, $p < .001$, $d = 2.65$.

Armed Robbery (ROBA)

Calls for service of this call type increased after booking restrictions were put into place ($M = 78.92$, $SD = 7.79$) compared to the period immediately prior which did not restrict bookings ($M = 74.17$, $SD = 9.24$). The booking restriction period incurred a mean increase of 4.75 calls for service, 95% CI [2.99, 6.51] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 5.95$, $p < .001$, $d = 1.72$.

Shooting with Victim (SHOOT)

Calls for service of this call type increased after booking restrictions were put into place ($M = 20.25$, $SD = 4.54$) compared to the period immediately prior which did not restrict bookings ($M = 14.17$, $SD = 5.10$). The booking restriction period incurred a mean increase of 6.08 calls for service, 95% CI [4.12, 8.05] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 6.82$, $p < .001$, $d = 1.97$.

Shots heard with No Known Victim (SHOTS)

Calls for service of this call type increased after booking restrictions were put into place ($M = 275.08$, $SD = 33.05$) compared to the period immediately prior which did not restrict bookings ($M = 202.92$, $SD = 37.43$). The booking restriction period incurred a mean increase of 72.17 calls for service, 95% CI [57.04, 87.29] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 10.50$, $p < .001$, $d = 3.03$.

Drive-by Shooting (DBSHOTS)

Calls for service of this call type increased after booking restrictions were put into place ($M = 16.25$, $SD = 3.28$) compared to the period immediately prior which did not restrict bookings ($M = 12.75$, $SD = 3.31$). The booking restriction period incurred a mean increase of 3.50 calls for service, 95% CI [2.16, 4.84] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 5.75$, $p < .001$, $d = 1.66$.

Homicide (DOAH)

Calls for service of this call type increased after booking restrictions were put into place ($M = 3.42$, $SD = 1.17$) compared to the period immediately prior which did not restrict bookings ($M = 2.42$, $SD = 1.68$). The booking restriction period incurred a mean increase of 1 call for service, 95% CI [.19, 1.81] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 2.71$, $p < .020$, $d = 0.78$.

Motor Vehicle Theft (MVT)

Calls for service of this call type increased after booking restrictions were put into place ($M = 437.50$, $SD = 51.42$) compared to the period immediately prior which did not restrict bookings ($M = 350.00$, $SD = 26.92$). The booking restriction period incurred a mean increase of 87.50 calls for service, 95% CI [68.73, 106.27] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 10.26$, $p < .001$, $d = 2.96$.

Rape (RAPE)

Calls for service of this call type increased after booking restrictions were put into place ($M = 56.92$, $SD = 7.05$) compared to the period immediately prior which did not restrict bookings ($M = 55.42$, $SD = 4.42$). The booking restriction period incurred a mean increase of 1.5 calls for service, 95% CI [-1.18, 4.18] per month. The booking restriction period did not show a statistically significant difference in calls for service compared to the period prior to booking restrictions, $t(11) = 1.23$, $p < .243$, $d = 0.36$.

Domestic Assault with a Weapon (DVW)

Calls for service of this call type increased after booking restrictions were put into place ($M = 90.33$, $SD = 7.90$) compared to the period immediately prior which did not restrict bookings ($M = 46.08$, $SD = 5.80$). The booking restriction period incurred a mean increase of 44.25 calls for service, 95% CI [41.58, 46.92] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 36.48$, $p < .001$, $d = 10.54$.

Residential Burglary (BUR)

Calls for service of this call type increased after booking restrictions were put into place ($M = 253.00$, $SD = 13.67$) compared to the period immediately prior which did not restrict bookings ($M = 276.33$, $SD = 8.13$). The booking restriction period incurred a mean decrease of 23.33 calls for service, 95% CI [-30.63, -16.04] per month. The booking restriction period endured a statistically significant decrease in calls for service compared to the period prior to booking restrictions, $t(11) = -7.04$, $p < .001$, $d = -2.03$.

Commercial Burglary (BURC)

Calls for service of this call type increased after booking restrictions were put into place ($M = 175.58$, $SD = 17.64$) compared to the period immediately prior which did not restrict bookings ($M = 150.00$, $SD = 16.78$). The booking restriction period incurred a mean increase of 25.58 calls for service, 95% CI [20.30, 30.87] per month. The booking restriction period endured a statistically significant increase in calls for service compared to the period prior to booking restrictions, $t(11) = 10.66$, $p < .001$, $d = 3.07$.

Conclusions

Paired-samples t-tests were conducted between 13 criminal call types on a month-to-month basis over two years to determine whether statistically significant differences existed in crime rate as determined by 911 calls for service. The periods reviewed were 12 months prior to a jail booking restriction intervention and 12 months post-jail booking restriction intervention. Five outliers in the data were determined to be more than 1.5 boxplot lengths from the edge, but due to their lack of extreme dispersion, the data remained in the study. Assumption of normality of the data, as assessed by the use of Shapiro-Wilk's tests, was not violated. In summary, crime rate as determined by 911 call volume increased to a statistically significant degree at a 95% confidence interval in 11 of 13 crime types analyzed. Due to the significant degree to which a vast majority of crimes increased during the study period, the hypothesis that crime rate increased as a result of COVID-induced booking restrictions is accepted.

CHAPTER FIVE: DISCUSSION

This chapter reiterates the purpose of the study, the methodology, and the results found after statistical analysis of the acquired data. This chapter also discusses limitations, potential for future research, and what the results may offer the field of criminal justice.

Purpose of the Study

The purpose of this study was to determine if there was a change in crime rate as measured by 911 calls for service when a large County jail severely restricted police departments' ability to book offenders into their facility. In this particular case, the catalyst for such restrictions, which have never been in place prior, was the outbreak of the global COVID-19 pandemic. With jail populations being confined to close quarters and medical treatment insufficient for major illnesses, administrators took unprecedented steps to minimize close contact and potential spread of the virus. This, however, created a unique situation for criminal justice in the Pacific Northwest: almost no suspected offenders meet the criteria to be booked into jail under the restrictions. With only Class A felonies being bookable, most suspected criminals remain left to walk away from the scenes of their crime(s). How this impacted public safety, and the perception of safety, was unknown. Further, these restrictions presented a study opportunity that could help ascertain whether the normal procedure of booking criminals was a worthwhile endeavor given its massive cost in financial and resource terms.

Findings

The research question in this study is reiterated here:

RQ1: Is there an increase in the crime rate when COVID-19 booking restrictions are in place in a large Pacific Northwest County?

The study determined there was a significant increase in crime in almost every major call type post-booking restriction implementation. Particular increases were noted in strong-arm robberies, shootings, homicides, motor vehicle thefts, and domestic violence crimes involving weapons. There were increases in crimes such as assaults (with and without weapons) and rape, though the increases were less significant. Only one of the major crime types analyzed in this study saw a decrease after COVID-19 booking restrictions were put in place, and that involved residential burglaries. Possibilities for the deviation in residential burglary results will be discussed later in this chapter.

Ultimately, the findings of this study require an acceptance of the hypothesis associated (H_0 : COVID-19 booking restrictions lead to an increase in the crime rate in a large Pacific Northwest County) and a rejection of the null hypothesis (H_a : COVID-19 booking restrictions have no effect on the crime rate in a large Pacific Northwest County). Future research and discussions among stakeholders will be required to determine if this increase is acceptable as an alternative to traditional booking efforts which correlate to a lower level of crime.

Limitations

Associated changes throughout society accompanied the booking restrictions at the focus of this study, and created some minor limitations. One issue of note is that the number of Officers involved and responding to the workload could not be accounted for. This study attempted to mitigate that factor by using calls for service rather than proactive statistics, as more Officers on duty generally results in more law enforcement

action. In any case, lacking a comparative number for Officers could present minor changes in total numbers, as some 911 callers may cancel their request, and thus change their associated call type, if they were to wait too long for a response. It was anticipated that this limitation would not alter statistical results to a notable degree.

Discussion

This study was rooted in a remarkable time for not just criminal justice, but the world as a whole. The booking restrictions that became the intervention studied herein stemmed from a time of unprecedented needs caused by a global pandemic, which certainly were not limited to law enforcement. Due to that, various considerations must be taken into account when interpreting this data.

The premise of this study was to determine if there is a correlation between suspected criminals not being able to be booked into jail and a change in crime rate. The data shows this is strongly correlated, although the design of the study cannot determine causation. Knowing from prior scholarship that a small number of individuals are responsible for a majority of criminal activity (Falk et al., 2014), the results suggest there is an incapacitation benefit to jailing. What the results cannot suggest, and what is well outside of the scope of this research, is to what extent the cost satisfies the benefit of reducing jail populations and, optimistically, the spread of COVID-19. That question is one that is likely left for individual opinion or, most practically, individual counties or service areas to determine what is right for their citizens.

In the study, the major crime types were analyzed, and non-criminal call types were omitted intentionally as they did not warrant inclusion based on the research question. In the analysis, only one major call type was found to have a decrease, and that

was residential burglaries. There is a theory for why this was so, and why residential burglaries did not follow their commercial counterparts in seeing an increase of activity. During the COVID-19 pandemic that caused the jailing restrictions, most of the County studied has remained under various conditions of shut down and restriction by governmental mandate. Many business types have been unable to operate for extended periods, and many businesses shut down operations permanently after being unable to sustain their businesses during pandemic conditions. Even after exiting explicit lockdown (complete closure of businesses and stay-at-home orders), the County continued operating under severe restrictions for capacity in most business types, as well as most indoor and outdoor settings. It is possible, then, that more residences were occupied more often, making them less desirable targets for burglars. Similarly, the extensive number of businesses unoccupied due to not legally being able to operate may have made them more attractive targets.

Along the same lines as occupancy, or lack thereof, potentially influencing the changes in burglaries, the increase in domestic violence crimes was stark and possibly influenced by pandemic conditions. As a result of workplace shortages, restrictions, business closures and lockdowns, families and domestic partners were likely held in much closer quarters for longer periods than usual. This may have increased tensions within households, leading to increased calls for domestic violence crimes. It is also possible, and must be considered, that there is a greater probable increase in domestic violence crimes as previous studies have indicated that, in non-pandemic times, almost half of domestic violence incidents go unreported entirely (American Civil Liberties Union, 2015).

Implications for Practice

Understanding the impact of interventions is paramount to determining whether it is prudent to continue their use. Primarily, it is ideal to research and estimate potential benefits and detriments of interventions prior to their widespread adoption, whenever possible. The COVID-19 pandemic however prevented the standard efforts to estimate these impacts in a rush to mitigate spread of the virus in correctional facilities. Instead, in this instance, the effects of restricted jail bookings must be reviewed in hindsight. In doing so, statistically significant increases in most crime types were found. With this information, stakeholders are now armed to discontinue the use of booking restrictions if it is determined the increase in crime is not an acceptable trade for whatever reduction in virus spread they may have offered, particularly in light of the widespread adoption of vaccines created to prevent serious illness. Similarly, stakeholders in the Pacific Northwest now have data with which to review should a future pandemic or other health emergency spur the interest in implementing booking restrictions again as a means to aid in preventing spread of a disease.

Recommendations for Future Research

As previously mentioned, non-criminal calls to 911 were discounted as this study looked specifically at calls for service related to violations of the law. There would be, however, potential for research into the change, if any, in calls for citizen assists, suicidal subjects, and Order service calls, among others. This type of data could be valuable to agencies in determining how best to satisfy their staffing needs during times of public emergency.

Related to the aforementioned increase in domestic violence crimes, advocates and police departments alike would benefit from additional research into any change that lockdowns brought to unreported household and domestic partner crimes. Similarly, there are similar risks to study among school-aged children and vulnerable populations, such as those experiencing homelessness and those with mental and physical disabilities.

Additional valuable research stemming from this study would attempt to determine the financial savings enjoyed by counties who employ similar restrictions. With fewer prisoners, jails need less staff, thus incurring lower wage payouts, less overtime pay, benefits savings, food costs, and more. It would be of value to research what these savings, if any, amounted to, where that money was redirected, and what, if any, benefits were absorbed from that reallocation. This information could then be compared to what societal costs have been incurred in light of the same interventions and the subsequent consequences related to criminal activity.

Conclusion

It was hypothesized that restrictions on what crimes can be booked into local jail facilities would result in greater crime reports in the studied jurisdiction due to suspected criminals being left in the community. In this study, the restrictions were put into place in response to the COVID-19 pandemic as an intervention to slow the spread of the virus in correctional facilities. After comparing pre-intervention and post-intervention archival data, a statistically significant increase in crime was found after jail booking restrictions were introduced in almost every major crime category examined in a large Pacific Northwest County. Of studied crime types, increases were found to statistically significant degrees in crimes to include assaults, commercial burglaries, motor vehicle

thefts and others. The only studied crime type that did not increase was in residential burglaries, which may be related to pandemic-induced lockdowns that left homes occupied more often than under pre-pandemic circumstances. Implications from this research may influence future responses to public health initiatives and encourage future studies on the consideration of incarceration alternatives.

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APPENDIX

APPENDIX A – IRB EXEMPTION

IRB Application Question 

 **IRB, IRB**     

Fri 6/25/2021 2:28 PM

To: Jendrick, Nathan

Cc: Miedich, Carl (Helms School of Government) + 1 other

Based on the information you've provided, your research will not involve human subjects, so IRB review will not be necessary. See the below definition of human subject. I've highlighted the pertinent wording:

(e)(1) *Human subject* means a living individual about whom an investigator (whether professional or student) conducting research:

(i) Obtains information or biospecimens through intervention or interaction with the individual, and uses, studies, or analyzes the information or biospecimens; or

(ii) Obtains, uses, studies, analyzes, or generates identifiable private information or identifiable biospecimens. ([OHRP](#))

Feel free to contact the IRB if additional information is needed. If you have already begun preparing a Cayuse IRB application, you are welcome to delete it.

Best,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office